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Public Finance Reform during the Transition

The Experience of Hungary

Edited by Lajos Bokros and Jean-Jacques Dethier

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Acknowledgments

This book is the product of a collaborative effort between policymakers and researchers who, over the past several years, have worked jointly on public finance in Hungary. Each chapter is based on work carried out in Hungarian institutions and in the World Bank as part of the Bank's technical and financial assistance.

Sixteen of the 19 chapters in this volume were written by teams combining academic expertise with practitioner experience. The three other chapters by Lajos Bokros, János Kornai, and Csaba László provide commentary on the reform process. Achieving a successful marriage between the views of policymakers and researchers who look at the same issues in a different light has been one of the main difficulties in putting together a volume of this kind. While we cannot claim to have been always successful, we feel that it has been worth the effort. Achieving policy outcomes that are meaningful and relevant requires maintaining a constant dialogue between politicians, administrators, academics, and the public. There is no other way.

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Overview

Jean-Jacques Dethier

This volume aims to provide a comprehensive description of one country's experience of public finance reform in a former socialist economy. Its ambition is to make the economic, social, and institutional dimensions of this complex process intelligible, rather than to bring new theoretical insights on public finance in transition economies. The book focuses on Hungary, an early reformer that underwent a profound—and still unfinished—process of transformation.

Part I of this volume discusses the macroeconomic dimensions of the process. Part II looks at the reforms from a historical and comparative perspective. Subsequent chapters analyze the reforms that took place in social expenditure programs (Part III), in public sector management and institutions (Part IV), and in the tax system (Part V).

This overview presents a brief summary of each chapter. It is intended as a menu. Readers who do not want to risk indigestion from a 19-course meal can browse through these pages and select the courses they prefer.

For a country making the transition from a planned to a market economy, reforming public finance means introducing reforms in the structure, organization, and methods of financing the public sector. Public finance reform is simultaneously a process of fiscal adjustment and structural reforms in the public sector. Under socialism, the concept of public finance was nebulous, as there was no clear delineation between private and public sectors (Tanzi 1993). The public sector owned and controlled most assets, and a large fraction of the income they generated was redistributed by the state to households. Prices were out of line with both costs and world prices, and there were shortages in many sectors. During economic transition, prices were liberalized so that resources moved toward sectors whose relative prices had increased. The massive process of adjusting aggregate demand and supply that resulted from this liberalization was, initially, destabilizing and recessionary. At the same time, Hungary established a taxation system based on market economy principles and redefined its government's tasks and expenditure priorities.

Making a successful transition to a privately owned market-based economy under conditions of reasonable macroeconomic stability requires appropriate policies—and profound institutional changes. As

János Kornai writes in chapter 1, "lasting equilibrium is far less likely to result from adjusting the quantitative macroeconomic parameters than from carrying out institutional changes." In this sense, the changes in public finance experienced by Eastern European and other transition countries in the 1990s differ fundamentally from the fiscal consolidation process in Western Europe and other countries of the Organisation for Economic Co-operation and Development (OECD) in the same period. Both east and west, many countries experienced sustained periods of decline in the fiscal deficit in terms of gross domestic product (GDP)—either because governments spent less or because they taxed more—even after accounting for interest payments and the effects of the business cycle (Alesina and Perotti 1996; McDermott and Wescott 1996). Also, in both sets of countries, similar policies to ensure sustainability and fiscal discipline were contemplated or implemented. But similarities end there. In transition countries, structural reforms aimed at more than creating sustainable institutional arrangements in the public sector: they aimed to create a government sector adapted to a market economy.

Chapter 1. The General Trends and the Philosophy of Public Finance Reform

János Kornai's introductory chapter provides a broad perspective on the redefinition of the role of government. Governments around the world have changed profoundly—as have the paradigms used by economists and social scientists to think about them.[1] While this process took place gradually over more than two decades in developed market economies, it was necessarily abrupt in transition countries, leaving little time for minds and institutions to adapt. Ironically, it is governments that once prevented individual freedom and markets from developing that are now being called on to create the legal and institutional basis for those markets. Kornai describes the fundamental differences between the roles of government under socialism and a market economy, and draws the implications for public finance. He then goes on to describe the basic principles that should guide public finance in a democratic and open society, including transparency and tax awareness. Finally, Kornai stresses the importance of setting up a sustainable public finance system and allowing time for reforms to take hold.

PART I. THE MACROECONOMIC CONTEXT

Chapters 2, 3, and 4 describe macroeconomic developments during the period of reform of the public finance system, present an aggregate

analysis of consolidated general government accounts and their sources of financing during 1986-97, and analyze the long-term effects of fiscal adjustment in a general equilibrium framework.

Chapter 2. The Setting: Macroeconomic Policy in Hungary in the 1990s

In the second chapter, Jean-Jacques Dethier and Witold Orlowski provide a brief overview of fiscal and monetary policy during the transition. In spite of having been the first socialist country to embark on a course of economic and political liberalization, Hungary was unable to recover early from the recession caused by the 1989 transition shock, and growth was disappointing until 1997. In large part, though not exclusively, this is due to delayed adjustment. During 1991-94, fiscal disequilibria increased, for two main reasons: increasing interest payments that resulted from fast growing public debt, and the large increase in transfers to households (both in real terms and as percent of GDP) that were not offset by the sharp reduction in enterprise subsidies imposed during the first stages of the transition. As policymakers were unable or unwilling to take fiscal adjustment measures, a "twin-deficit" situation (combining large deficits on the external current account and the budget deficit) developed in 1994. The twin deficit operated through an appreciation of the real exchange rate supported by large borrowing abroad. A stabilization program adopted in March 1995 to restore macroeconomic equilibrium included currency devaluation, a new exchange-rate mechanism, incomes policy, and fiscal measures to enhance revenues and cut expenditures. The stabilization program was accompanied by important structural reforms. Between 1995 and 1997, cuts in the share of government expenditure in GDP and the tax/GDP ratio reduced the fiscal deficit, putting the fiscal program on a long-term path consistent with a decline in general government debt to reach a substantially reduced debt/GDP ratio, with a corresponding decline in interest payments.

Chapter 3. Fiscal Deficit and Public Debt during the Transition

Gyula Barabás, István Hamecz, and Judit Neményi describe in this chapter changes in the consolidated accounts of the government, in the deficit of the general government, and the public debt during 1986-97. For the deficit, both "above-the-line" nominal and real total deficits (primary deficit and net interest payments) and "below-the-line" financing sources (that is, changes in monetary and non-monetary public debt holdings) are presented. The consolidated public debt, calculated by net-

ting out the financing flows between the budget and the central bank, includes both domestic currency-denominated debt outside the central bank and foreign exchange-denominated debt.

By examining changes in the real (operational) deficit, the authors show that, during the pre-transition period, the primary deficit was underreported and real interest payments overestimated, so that the debt/GDP ratio was on an unsustainable course even before 1992 (in the sense that no combination of primary deficit, real interest rate, and real GDP growth rate was sustainable without policy adjustment). They stay away from the claim that fiscal policy was lax at the beginning of the transition process because, given the large GDP decline (induced by several real shocks), government revenues and expenditures were very sensitive to the business cycle. During 1991-94, the exogenous (cycle-related) part of fiscal expenditures was at least as responsible for the deterioration of the fiscal stance as high real interest rates and the recession. However, adjusting the data to take into account the effects of the cycle, the authors show that the primary deficit deviated from its trend level for non-cyclical reasons until 1995, most strikingly in 1994. As a result of the adjustment policy initiated in 1995, primary deficits in 1995 and 1996 were below their cyclical levels. In 1997 there was an obvious loosening of fiscal policy.

In terms of deficit financing, in the second half of the 1980s, foreign-currency financing dominated and the government provided cheap finance to the state-owned sector with the intermediation of the central bank. The state refrained from further borrowing abroad in 1991-92, but the growing "twin-deficit" problem led to an increase in external debt in 1993-94. After the adjustment program, public borrowing needs were cut significantly and were covered from domestic sources. In the early years of the transition, seigniorage revenues fluctuated between 0.3 and 3 percent of GDP, peaking in 1991 at 4.9 percent when inflation reached its high. Then, when a new deficit financing regime was introduced, seigniorage did not play an important role. After 1992, the government could not rely heavily on money creation as a source of finance, as new savings instruments developed and an increasingly larger part of domestic savings went directly to the budget or the corporate sector.

Until 1989 the budget deficit was wholly financed from abroad. Starting in 1990, external borrowing declined and the proportion of domestic debt increased, rising to 70 percent of total net debt by the end of 1997. With the twin deficit of 1993-94, it became impossible to significantly reduce foreign-exchange debt and, therefore, the debt/GDP ratio.

Revenues from privatization were spent as current expenditures during 1990-94; this did not reduce the debt/GDP ratio. The decision was made in 1995-96 to use privatization revenues (more than $4 billion) to retire debt. Not only was the public debt reduced, but its structure also changed considerably, mainly under the influence of the development of government securities markets, and capital flows induced by the liberalization of capital account transactions and the introduction of forint convertibility.

Chapter 4. Long-Term Effects of Fiscal Adjustment

In this chapter, Jean-Jacques Dethier and Witold Orlowski assess the long-term effects of fiscal policy using a general equilibrium model. In the first part of the chapter, they measure the long-term costs of delayed fiscal adjustment during 1991-94. They compare two long-term growth scenarios during 1992-2006: a base-case solution (reproducing historical data until 1996, then extrapolating trends until 2006) and a counterfactual scenario that assumes fiscal adjustment began in 1992. The difference between the two scenarios represents the long-term gains due to the hypothetical early reforms—or the costs of postponing fiscal adjustment until 1995. Numerical results show that the short-term welfare gains of 1991-94 expansionary fiscal policy were outweighed by long-term GDP growth losses and higher inflation and that, in the long run, social costs are higher under a delayed adjustment scenario in spite of the temporary increase in unemployment during adjustment.

In the second section the authors address the issue of sustainability of fiscal policy in the context of Hungary's accession to the European Union (EU). Given the desirability of accelerating economic growth and converging rapidly toward EU income levels, they ask under what conditions high growth is compatible with achieving the targets of the Maastricht Treaty. In the post-stabilization phase, growth-enhancing effects take place through four main channels. First, lower interest rates reduce the cost of capital; second, lower taxes, especially on payrolls, increase net household earnings and retained earnings in enterprises; third, reducing labor distortions make labor markets more flexible, and, finally, a possible overall increase in national savings can result from lower public-sector dissavings and the development of capital markets, in particular private pension funds. Can Hungary implement a credible medium-term program to converge toward Maastricht without imposing excessive social hardships? The answer given by this chapter is yes—provided irreversible public sector reforms are introduced—but meeting the public debt criterion will require putting a stronger emphasis on fiscal

public debt criterion will require putting a stronger emphasis on fiscal consolidation than is implied by the Treaty.

PART II. THE REFORM FROM A HISTORICAL AND COMPARATIVE PERSPECTIVE

Part II consists of chapters describing the history of the reform process and empirically analyzing trends in public spending and revenues in Hungary compared to other transition and industrialized economies.

Chapter 5. Twists and Turns: The History of the Hungarian Public Finance Reform

Csaba László presents a chronological overview and an interpretation of the decade-long Hungarian reform process—from the tax reform of 1988 to the successes recorded three years after the beginning of the 1995 stabilization program. The process is far from being completed, as current levels of taxation and spending are unsustainable and profound reforms in parts of the public sector are still needed. But, symbolically, one can consider that Hungary in 1998—the year of the official invitation for EU accession negotiations—has been ushered out of its "transition" period and into its "accession" period.

László describes how repeated attempts at comprehensive reform of public expenditures were thwarted until the fiscal situation became unsustainable in late 1994. The first major wave of reforms in public finance had taken place just before and after democratization in 1989:[2] first the tax reform, then the creation of new legal frameworks for central banking, intergovernmental relations (with autonomous, democratically elected municipal governments), and social insurance and social protection. In 1992 there was a timid budgeting system reform, followed by new legislation on employment and remuneration of civil servants. Significant reforms in social expenditure programs came only after 1995. The government embarked on a series of reforms to achieve a lasting turnaround in public accounts—some purely fiscal, some of a structural nature. Budgetary institutions were eliminated, public-sector financial management was reformed, and local government borrowing restricted. The first package of social reforms dealt with sick pay, family allowances, and education finance. The government froze wages and cut public-administration staff. The significant decline in the public expenditure/GDP ratio that took place in 1995 was largely the result of budgetary cuts and higher-than-expected inflation. But the measures were followed

by other structural reforms, most significantly in the pension system, bringing public spending to a more sustainable level.

Chapter 6. Hungary's Public Finances in an International Context

Even though public expenditure declined by 11 percent of GDP during 1994-97, it is still high by international standards, in particular in comparison with other advanced transition economies. This chapter is the only one in this volume to present Hungary's fiscal dilemmas from a cross-country perspective (though some comparative sectoral data are presented in other chapters). Updating the analysis of expenditure and revenue patterns during the transition in the 1996 World Development Report (World Bank 1996), Luca Barbone and Rossana Polastri use data on public revenue and expenditure for 26 transition economies for 1988-89 and 1994-95 to examine empirically the determinants of public spending. They propose a typology of ex-socialist economies based on predicted versus observed expenditure ratios. They also address empirically the issue of sustainability—here meaning the present and future ability of governments to collect revenue to finance their level of spending. They use a model fitted to a cross-section of transition countries to predict public-revenue levels, then compare them with actual observed values and develop hypotheses about fiscal accounts during the transition. Finally, the authors examine whether advanced transition economies like Hungary are "converging" toward OECD spending levels.

PART III. REFORMING SOCIAL EXPENDITURES

Hungary's social expenditure programs have led János Kornai to term Hungary a "premature welfare state." During the first years of the transition, cash and in-kind social transfers increased, in real terms and as percent of GDP, to unsustainable levels. This increase was one of the primary causes of growing fiscal disequilibria and directly led to the adjustment in 1995-97 that reduced those transfers in GDP terms. This part of the book describes policy reforms in the pension system, health care, education, social assistance, family benefits, and programs for the unemployed.

Chapter 7. The Hungarian Pension System in Transition

The most significant reform in public finance, certainly from the point of view of financial sustainability, was the pension reform of 1996-97. This

radical reform transformed the pension system—until then a single public defined-benefit scheme financed on a pay-as-you-go (PAYG) basis, as in many countries of Western Europe—into a multi-pillar system comprising a mandatory defined-contribution funded system managed by the private sector. Workers now have the option to switch to the new system, or stay in the old one. The reform has had strong public support and, in the first four months of operation, 900,000 workers switched to the new system. In this chapter, Robert Palacios and Roberto Rocha describe the pension system as it operated between 1990 and 1997 and the financial problems it faced. They then describe the reform proposals that were on the table and the political debates during preparation of the reform. Finally, they describe in detail the new system (which began operating in January 1998) and assess the likely long-term economic impact of the reform.

The rapid deterioration of pension finances during Hungary's transition toward a market economy—leading to one of the world's worst old-age dependency/system-dependency ratios—was not directly related to population aging, but to the reduction in labor-force participation, increased unemployment, and an increase in new early retirement and disability claims. The authors show the devastating impact these changes, combined with fiscally unsound policies, had on public accounts. They show how policymakers tried, for several years, to slow this deterioration by manipulating key indexation parameters of the system, while refusing to consider a systemic reform. They also present long-run projections of the deficits that would have resulted in the absence of reform.

The pension reform consists of several key elements: raising the retirement age; changing the benefit formula (tightening the link between contributions and benefits) and the method of indexing pension benefits; a new tax regime; and setting up a system of private pension funds. Palacios and Rocha present a detailed analysis of the long-term economic effects of the reform. Theory tells us that these depend on how the reform is financed. In Hungary, the reform relies on relatively more debt financing in its early years, followed by relatively more tax financing in the next decade. The reform is expected to have a positive impact on economic growth because of the development of capital markets induced by the institutional reform, combined with an increase in national savings (which, other things being equal, would increase with the savings generated in the PAYG system).

Chapter 8. Reforming the Health Care System: The Unfinished Agenda

Éva Orosz, Guy Ellena, and Melitta Jakab take stock of the reforms that have taken place since 1987 in financing and delivering health care and describe the institutional setup that has been responsible for much instability in the fiscal accounts. Their assessment shows clearly that, because of poor health policy and failures in solving major incentive and institutional problems, expenditures are not under control and health outcomes are very poor. The reform is still largely unfinished.

At the beginning of the transition, Hungary switched from tax-based funding to funding through compulsory insurance. Soon thereafter, a Health Insurance Fund (HIF) was established and, in 1993, it started being controlled by a "self government." However, HIF has been in chronic financial imbalance due to economic recession, lack of definition of revenue sources to cover non-active population groups, benefit packages not matched by resources, and the lack of mandate and capability to act as a purchaser of services. The roles, responsibilities, and powers of HIF have not been clarified, resulting in constant power struggles with the Ministries of Welfare (on health policy), Finance (on financial control), and even between HIF administration and its self government. The ownership of health facilities was transferred to local governments in 1990. However, this transfer was matched with real responsibilities and financing and regulatory powers on the part of the municipalities. Moreover, lack of adequate funds has prevented maintenance and upgrading of buildings and equipment. Doctors, nurses, and health personnel are public employees, which leaves little flexibility to reward or penalize staff from the facility level to individual physicians. There is no adequate separation of public and private practice—legally authorized in 1989—leading physicians with private practices to act as free riders on the public system.

The health-care delivery system has undergone profound changes, but these changes have had little impact in terms of improving health indicators (which are so bad in Hungary that the authors speak of an epidemiological crisis). Health policy has largely focused on the structure and workings of the curative sector; disease prevention has been neglected and has occupied a relatively low priority on the public policy agenda. Improvements in primary care were attempted in 1992, but physicians continue to offer mainly prescription and referral services in the

absence of proper equipment and national guidelines. Reductions in excess hospital capacity were attempted in 1995 through a centrally administered mechanism that failed to achieve its objectives, while creating major opposition in the sector and the population. Excess physical and human resource capacity in the health care system continues to be a major cause of inefficiency, of financial shortages, and, ultimately, of poor-quality services. Performance-based remuneration systems have been introduced, but none of the new methods of payment is without flaws. Liberalization of the pharmaceutical market quickly led to a sharp increase in public expenditures. Efforts to bring down these expenditures concentrated on reducing reimbursement rates, and have not been successful in altering behavioral patterns of physicians or patients.

Chapter 9. Reforms in Education Financing

Zsolt Aradi, Gábor Halász, and Judit D. Nagy examine in this chapter the financing of the education system. They provide an overview of the transformation of the system and of how it is financed by government. Hungary is a classic case illustrating the pros and cons of a decentralized financing system for primary and secondary education. The public education system is very decentralized and schools (and teachers) have great autonomy. The central government supports municipalities through norm-based transfers and determines general rules of education policy. Schools owned. by municipalities, for the most part, define their own budgets. This leaves a lot of room for bargaining about teacher salaries even though, after reforms introduced in 1995, cost-effectiveness norms were imposed by law. The decentralized norm-based financing system seems to be successful in securing consumer choice, attracting alternative resources, and creating innovative initiatives, but less successful in terms of efficiency of resource management and adaptability. The system, however, fails to ensure equal opportunity because active policy measures to compensate losers are not yet in place.

Higher education is also a classic case, in this instance of resistance to change by autonomously managed, but publicly financed, institutions providing private benefits. The number of students enrolled in universities has skyrocketed since the beginning of the transition (partly to acquire new skills, partly to delay entry into a labor market that does not provide adequate employment opportunities), but there were few changes in educational policy and organization. Growth in student numbers has put a lot of pressure on the budget, as most of the costs of running the system are financed by the taxpayers. During 1991-97, budget support

for higher education, as for most other programs, dropped in real terms though, in terms of GDP, transfers to these institutions have declined much less than other state transfers. There has been virtually no organizational and management reform. The predictable results have been deteriorating material and technical quality, growing unmet investment needs, and mounting social tensions. The reform of higher-education financing (including, to a limited extent, tuition fees) and organization began several years ago but, because of the opposition by staff, students, and their political allies, has met only limited success.

Chapter 10. Poverty Alleviation: Social Assistance and Family Benefits

Under socialism (and in conditions of nearly full employment and relatively low inequality) a wide array of social benefits was provided to households in Hungary. The transition brought about unemployment and income inequality, and costly social-protection mechanisms were put in place. Family allowances and other child subsidies in 1990-93 amounted to 3.2 percent of GDP. These programs were not well-targeted and benefited the entire population, irrespective of income levels. There were also numerous social assistance programs for the increasing population under the poverty line, but these programs failed, for various reasons, to reduce the incidence of poverty. A series of reforms took place essentially for fiscal reasons.

Sándor Sipos and István György Tóth review the changes in family support (family allowances, other cash benefits for children and mothers, and maternity bonuses) and in social assistance and their impacts on reducing poverty during the transition. Using survey data on the distribution of earned and unearned income for Hungary, and comparative indicators, the authors first present a cross-sectional picture of Hungarian-family and social-assistance policies, reflecting conditions at the beginning of the transition. They then examine changes in the welfare system during 1990-96. In the first half of this period, the reform process was gradual and hesitant, and led to erosion of benefits rather than a shift toward more focused and efficient benefit structures. A radical reform of family benefits was suggested in 1995 and implemented in 1996. The family allowance became a means-tested benefit and its amount tied to the number of children in the family and per-capita income. The childcare fee was terminated for children born after April 1996. The childcare allowance for children under 3 was reduced and means-tested. Other benefits, including pregnancy and maternity allowances, were modified

and reduced. The authors evaluate these reforms from the point of view of fiscal cost, targeting, adequacy to compensate for income losses, and incentive effects.

Chapter 11. Labor-Market Policy Reforms and the Fiscal Constraint

Tito Boeri and Gyula Pulay review labor market developments in Hungary since the start of transition, the institutional setting for labor market policies, the financing of labor market policies, and expenditure savings in this area since 1992. They also assess—using data from the Labor Force Survey—the effects of reforms on labor-market flows and the effectiveness of active labor-market policies in promoting a flow from the unemployment register to jobs.

Boeri and Pulay's assessment of labor-market policy reforms during the transition indicates that the unemployed have so far paid most of the costs of fiscal consolidation. The process of transition in Hungary has involved more labor shedding than in other Visegrad countries and sharp reductions in employment to population ratios. As only a fraction of job losses has translated into rising unemployment, large drops in participation rates have occurred. Pressure on the unemployment benefit system was so strong that part of the burden was shifted to the pension system, allowing for large flows into early retirement and disability pensions. Rather than tightening access to the pension system and narrowing the scope of policies reducing labor supply, the government initially confined fiscal consolidation efforts in the social area mainly to reducing the generosity of the unemployment benefit system. This policy was partly successful in reducing labor-market policy outlays, but the expected increase in outflows from unemployment to jobs did not materialize. Hence, rather than reducing long-term unemployment, cuts in the generosity of the system resulted in further reductions of labor supply, and systemic dependency ratios continued to rise.

Further reforms in labor-market policies will be necessary to enhance the job-generation potential of the economic recovery. An active monitoring system (providing timely information on the cost-effectiveness of programs and their impact on outflows to jobs) exists in Hungary. This system could guide improvements in the labor-market policy mix, removing those program categories—such as training—that have proven least successful, and expanding the scope of more successful schemes, such as startup loans. Reduced unemployment benefit duration, and spreading long-term unemployment, have put an increasing share of the unemployed under means-tested income-support schemes. So far it does

not appear that means-testing has had strong adverse effects on outflows to jobs but, in the coming years, it will be important to minimize "poverty-trap" effects, increase motivation to search for jobs, and test the willingness to work for the long-term unemployed. As high contribution rates have set in motion a vicious circle leading to increased tax avoidance and expansion of the informal sector, improvements in labor-market policies should go hand-in-hand with reductions in contribution rates.

PART IV. PUBLIC MANAGEMENT AND INSTITUTIONAL REFORMS

Sound public finance requires a predictable legal framework and stable institutions. This part of the volume analyzes the reforms that have taken place in Hungary in five key aspects of the institutional framework: the devolution of public assets to private entities; the budget-management process; the regulation of wages and employment in the public sector; the roles and responsibilities of the central and local tiers of government; and the constitutional framework.

Chapter 12. Privatization: Restructuring Property Rights in Hungary

The transfer of ownership and control over assets previously in the public sector is the most fundamental aspect of the transition process. This process of privatization (or divestiture to municipalities and social funds, in some instances) began in 1990 and is almost entirely completed in the case of Hungary. In this chapter, Anita Papp, Millard Long, Mihály Kopányi, and Péter Mihályi describe this radical transformation (with an annex providing a wealth of details on privatization by sector) and attempt to measure the change in value of the privatized assets during 1990-95, the last year for which data are available. The authors also assess the impact of privatization on public finances. Privatization forced the government to become less dependent on revenues from public enterprises and to tax a broader base, including personal and corporate income, value added, and wages. Privatization, after an initial increase in outlays, also reduced government spending to cover enterprise losses and associated commercial bank bad debts arising primarily from loans to loss-making corporations. The sale of enterprises in industry, energy, infrastructure, and banking—in many cases, to foreign investors—generated large amounts of revenues for government that produced a sharp debate as to how these funds should be used. In the event, privatization allowed the government to retire more than $3 billion of debt in 1995-96 alone. Most of the assets sold initially belonged to the central government, but certain municipalities, primarily Budapest, also sold valuable assets. The privatization of land and housing

units has enabled the government to reduce subsidies to agriculture and households. Municipalities in particular benefited from the privatization of dwellings, because in most cases operating and maintenance expenses on the houses they owned exceeded rental incomes. Some assets were not privatized, but divested by the central government to municipalities and the social insurance funds, which have been able to use dividends and receipts from sales of these assets to cover expenditures that otherwise would have required transfers from the central government.

Chapter 13. Reforms in Public Finance Management

József Thuma, Hana Polackova, and Carlos Ferreira describe the budget system and process before and after the major reforms between 1995 and 1997. They measure the costs and savings resulting from the establishment of a central treasury system and focus on how the new system improved aggregate fiscal control, transparency, and accountability in the public sector.

The institutional structure of government, at the beginning of the 1990s, was characterized by a plethora of budgetary institutions with some degree of financial autonomy. The decentralized nature of central government operations, and the absence of a central treasury, created major difficulties for efficient cash and debt management. Many budgetary institutions had independent responsibility for their own revenues and expenditures, and there were serious limitations on the timeliness of the information system. As a result, the Ministry of Finance and the central bank could not accurately forecast net government credit. Moreover, they were not in a position to determine whether increases in an account were the result of a one-off event (such as asset sale) or were more permanent. Budgetary institutions were allowed to purchase government securities until 1995. This made it difficult for the central bank to determine the amount of refinancing to commercial banks consistent with inflation and balance of payments targets. Major reforms took place in 1995. Hungary put in operation a treasury system for cash and debt management and expenditure control and budget monitoring in January 1996. In the first year, the system covered the central budgetary institutions. The accounts of the social insurance funds became part of the new treasury system a year later. Before that, these funds had the authority to borrow independently of the state budget, with the Finance Ministry acting as their agent, guaranteeing their principal, and pay ing their debt service. Because of a structural disequilibrium between contributions and benefits, these funds generated during 1992-96 a yearly deficit equivalent to

about 1 percent of GDP. This deficit was covered partly by additional transfers, regularized by supplementary budgets, and covered partly by interest-free loans from the central budget (through their access to the government's liquidity fund at the National Bank). After 1997, this access became more restricted. The accounts of local governments are not part of the new Treasury. The current debate, briefly discussed by the authors, is whether the subnational level of government ought to be or remain an autonomous financial management system.

Chapter 14. Wages and Employment in the Public Sector

In this chapter, László Herczog, Gábor Kézdi, and Barbara Nunberg review the process of rationalizing government employment and remuneration in light of redefined state responsibilities resulting from the transition. The first part of the chapter reviews trends in employment levels in the general government (including administration, education, and health) during the first years of the transition. While employment in the private sector decreased by more than 30 percent, the number of public employees did not change much, reaching in 1995 a high (24 percent) public-employment ratio. Staffing cuts took place in 1995-96 under the stabilization program. The authors argue that, to put public-employment changes in perspective, they must be examined at a disaggregated level. By comparison with OECD and other transition countries, Hungary's central government was not overstaffed and the civil service was relatively small. For this sector, the problem is one of misallocation among functions, as evidenced by high ratios of managerial personnel in some ministries. If a more sectoral look at public-sector employment is taken, there is evidence of overstaffing in some parts of the public-sector, particularly in education and health, where a reorganization of services could open the way to significant personnel reductions.

The public-employment and pay system is rigid. Enhancing incentives available to public-sector employees is a real concern, especially in response to competition from the private sector. This concern is discussed in the second part of the chapter which—using cross-sectional survey data on the public and private sectors for 1986-96—reviews trends in salaries and public-private earnings differentials. After gains in the last years of the socialist system, public employees experienced serious losses in their relative position. While the earnings of the most educated public employees have increased, the public-private salary gap has widened from 2 to 25 percent to 37 to 58 percent. In the face of increasing competition for scarce skills, the government has yet to develop ef-

fective procedures for assuring continued employment of employees with skills valued in the private sector. Because of the lack of reform, Hungarian government agencies have no choice but to develop ad-hoc and informal arrangements to retain employees, such as manipulating vacancy rates to release funds for salary supplements and bonuses, or employing part-time workers.

Chapter 15. Sorting Out Intergovernmental Roles and Responsibilities

Hungary was a pioneer in decentralization among transition countries, enacting in 1990, with Poland, a law establishing autonomous local governments and entirely overhauling its intergovernmental fiscal system. Robert Ebel, István Várfalvi, and Sándor Varga examine in this chapter the specific responses by Hungary to the fundamental issues faced by decentralized countries. These include number and size of subnational governments; hierarchical subnational government system or independent municipalities; tasks to be performed by the center or transferred to the local government tier; revenue authority shared with the center or fully devolved to the lower tier of government; transfer of assets to municipalities; and capacity of local government to contract and manage debt.

Driven by political imperatives, Hungary broke up its old system and now has more than 3,100 independent local governments. Municipalities are obliged by law to provide basic services such as education, health, drinking water and local roads, and may, of course, provide additional services. The subsidiarity principle—according to which the smallest level of government that is administratively and economically capable should provide public goods and services—is explicitly recognized, and free elections ensure the accountability of local officials. To finance local activities, Hungary has a local taxation system whose main elements include central-local grants (representing nearly two fifths of municipal revenues)—which are mainly unrestricted, formula-based normative grants—and shared personal income taxation (with, today, 40 percent of personal income tax [PIT] flowing back to the locality of origin). Local taxes are unimportant and represent less than 6 percent of local revenues, well below the level of most Eastern or Western European countries. Own-source revenues are mostly non-recurrent (sale of assets). Municipal borrowing, which was limited by law in 1995, is not significant; the municipal debt market is undeveloped and local governments rely largely on national grants for capital spending. Given the failure of municipali-

ties to raise own-source revenues, the authors examine four major policy options being debated in Hungary: a business turnover tax, a local PIT "piggybacking" on the national tax, property tax, and redesigning the normative grant system toward a system of allocating funds based on the potential local ability to raise revenues from own sources relative to expenditure needs.

Chapter 16. Constitutional Rights and the Reform of Social Entitlements

In countries where the rule of law prevails, a predictable judiciary is a major element of stability. Hungary, like several continental European countries, chose to create a Constitutional Court to arbitrate conflicts between the government and individuals. The Court stands apart from the rest of the state apparatus, including the judiciary, and is responsible for interpreting basic constitutional rights in an abstract fashion. The interpretation of the constitution needs to change over time to adapt to changing circumstances. The chapter by Jean-Jacques Dethier and Tamar Shapiro presents a case study of the interaction between public finances and constitutionalism by reviewing the doctrine of the Hungarian Constitutional Court on social welfare rights. The issue is how to reconcile fiscal discipline with the protection of these rights. The Court rejected the constitutionality of several measures in the stabilization package of 1995 using the principles of legal certainty as a safeguard for social entitlements, property-like protection for insurance-based entitlements, nondiscrimination, and need for minimum social standards. The general trend of constitutional courts in modern democratic welfare societies has been to treat welfare recipients in light of their possible reliance on earlier assurances, but also to require them, if necessary, to bear some of the costs of change. The Hungarian Court has followed this trend only up to a point. It has been criticized recently for stretching legal principles beyond a reasonable point and for pursuing a political agenda, thus undermining the predictability and stability of legal relations.

The authors review the Hungarian Court's rulings and contrast them with the doctrine of other constitutional courts. They argue that issues of protection of social rights can be analyzed, in most cases, in terms of attitudes toward risk and availability of insurance—and that legally operational principles could be deduced from this framework. In some cases, courts are asked to rule on actual or reasonable reliance (expectations of policy continuity or change). In other rulings, the issue is how to compensate for welfare losses resulting from policy changes. In cases where

insurance markets are not developed, for example, for survivorship or disability risks, government policy could improve welfare by providing incentives to develop these markets. Gradual policy changes facilitate changes in expectations and behavior, so unsustainable welfare policies should be changed as gradually as possible, all else being equal. Moreover, in the case of "purchased rights" (social security benefits), this allows the costs of change to be spread among a larger number of people. For pension reform, which involves intergenerational conflicts, policy continuity is preferable for older persons and flexibility for younger participants.

PART V. REFORMING THE TAX SYSTEM

Taxation was the first building block of the Hungarian public-finance system to undergo radical reform. However, both the legislation defining tax rates and bases and the administration in charge of their enforcement have experienced almost yearly changes. The final two chapters of this volume analyze and assess changes in tax policy and tax administration from 1988 to 1997.

Chapter 17. Tax Policy Reforms in Hungary

A taxation system compatible with market principles, including a multi-rate value-added tax (VAT) and a PIT, was set up in 1988. A corporate income tax (CIT), and payroll contributions for pension, health care, and unemployment benefits were introduced soon after. As public expenditure increased during 1990-94 from 57 to 62 percent of GDP, tax pressure grew. Total tax revenue fell from 44 to 38 percent of GDP because the CIT rate was cut sharply. However, corporate tax aside, the tax revenue effort was maintained relative to GDP, as the relative contributions of PIT and VAT increased through higher rates and lower exemptions. The share of the main taxes in GDP was able to decline only after 1996 once expenditures were reduced.

In this chapter, Szabolcs Vámosi-Nagy, Imre Kocsis, and Luis Alvaro Sanchez examine changes in major taxes (including VAT, PIT, CIT, the harmonization of the latter two, and payroll taxes) and make a general assessment of the reforms. First, they review the incidence of taxation. This is a major issue of concern in Hungary, as both income tax and payroll taxes are high, apply to a narrow base, and place increasing burdens on the employed. VAT rates are very high by international standards, and excises play a significant role. Citing recent evidence pre-

sented by Newbery and Révész (1997), they indicate that the burden of taxation has increased in real terms, especially for low-income groups, in large part because of "bracket creep" (tax brackets not adjusted for inflation). The average combined PIT, payroll, and consumption tax, expressed as a percentage of gross labor cost, has increased for a family with two children in the bottom quintile of the income distribution, from 37 to 54 percent during 1988-96 and for a family in the top quintile from 48 to 63 percent. The relative increase for the lower quintile was much greater.

The authors also review, in light of the Hungarian experience, some incentive aspects of the taxation system, in particular its ability to affect savings and investment. In line with the recent economic literature's skepticism about the existence of a tight link between short-term investment and output growth, and the new consensus that growth follows from the adequacy of the overall institutional framework, they express reservations about recent reforms that seek to penalize consumption and create a more favorable and neutral tax environment for enterprises, while maintaining incentives to investment. A simplified design for the CIT, and more stability in tax norms, would probably do more for growth than yearly changes in the system. In their conclusions, the authors review briefly the agenda for the medium term as Hungary moves toward European integration and full implementation of World Trade Organization rules. This will mean large losses in customs and other revenue sources, for which Hungary needs to be prepared.

Chapter 18. Tax Administration during the Transition: Coping with Legal Changes and a Shrinking Base

Zoltán Pitti and Jaime Vazquez-Caro analyze the administrative aspect of taxation, a crucial—and often underplayed—dimension of taxation in transition economies. Tax administration poses major challenges during the shift to a market economy for at least five reasons. First, the number of taxpayers increases vastly (from a few hundred to about 1.2 million in Hungary), which requires a sophisticated administration with competent and well-paid staff to ensure compliance with the tax legislation. Second, because of the recession, tax arrears increase (sometimes to uncollectable levels if penalties are too severe) in many enterprises. Third, bankruptcy and liquidation reduce tax bases and revenues and require more administrative controls. Fourth, tax performance is affected by the openness of the economy: VAT performance is affected by international trade (because of refunds) and increased capital flows affect the performance of

income taxes. Fifth, if the tax pressure is high, the informal sector and evasion increase, posing new enforcement challenges. The authors review how the Hungarian tax administration, mainly the Tax and Financial Control Office (APEH), has coped—in terms of organization, strategic management, and human resources—with the challenge of tax (and arrears) collection and taxpayer audits. The general conclusion is positive: APEH has fulfilled its mandate well and has made significant advances in some areas, in particular in the last few years. The main ones, described in this chapter, have been the establishment of a large taxpayers unit (to deal effectively with the 320 taxpayers that represent about 20 percent of total tax revenues); computerization of a large taxpayer database (for tax declarations, payments, self-audits, and assessments resulting from audits); and the development of an enforcement strategy to deal with the informal economy. In this area, the authorities appear to lack a global strategy and have not been effective. In the last part of their chapter the authors propose a framework organized around some basic principles (stability, affordability, and vulnerability) to improve the administration of tax laws in Hungary.

CONCLUSION

Chapter 19. The Unfinished Agenda

In the chapter closing this volume, Lajos Bokros reviews its main themes—highlighted by János Kornai in chapter 1 and developed in subsequent chapters—and provides a commentary on the reform process. Bokros considers, from the pragmatic viewpoint of a policymaker, the enormous difficulties that have to be faced in any major attempt at reconstructing the public finance systems in transition economies. Starting from macroeconomic considerations about the levels of spending, deficit, and debt that are compatible with accelerated economic growth and social efficiency, he takes stock of the successes of the last decade and considers the unfinished agenda. There are two broad areas where policy debates are likely to be most acute in the coming decade: the reform of social security arrangements and the modernization of subsovereign finance. The main challenge in the social agenda will be to find the right balance between private insurance protection and publicly funded solidarity: broadening the second pillar of the pension system, and reforming the financing and the provision of health-care services are tasks that will occupy policymakers for years to come. At the subnational level, the main achievement has been the creation of politically independent and

reasonably well functioning local governments. However, income disparities among localities have increased and, in many municipalities, the quality of services has deteriorated. The main challenge will be to create a more efficient system of local governments (with, probably, a much smaller number of them) providing an adequate level of services and equal opportunities to all citizens, irrespective of income level.

Before ending this overview, let us consider briefly whether lessons from the Hungarian experience can be useful to policymakers in other transition economies. Even though the comparative perspective is not absent from these pages, this volume focuses on one country, and does not pretend to cover the diversity of fiscal situations encountered in all transition economies. Hungary is a member of the most advanced group of transition countries. The Hungarian experience is likely to be least relevant for those economies in which public ownership of assets still dominates, that have not abandoned socialist forms of resource allocation, and that are least advanced in establishing a market economy. It is also likely to be less relevant for those economies that have very different cultural and historical backgrounds. Hungary is firmly rooted in a European tradition and, in spite of the origin of its language, does not share many common traits with Central Asian countries. For any given country, the relevance of the Hungarian experience is also likely to be proportional to differences in initial conditions, levels of development, structural economic or demographic characteristics, and political and social environment. In spite of these caveats, we believe that there are many lessons to be learned from Hungarian history to the extent that what this book describes is a typical process of reforms in the structure, organization, and methods of financing of the public sector in a former socialist economy.

NOTES

1. Stiglitz (1998) and Tanzi (1997) provide recent overviews of the issues involved.

2. The best source in English on the Hungarian transition to democracy is Tőkés (1996).

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INTRODUCTION

1 The General Trends and the Philosophy of Public Finance Reform

János Kornai

The book before the reader is extremely rich in descriptions of institutions, statistics, and references to Hungarian and foreign literature. Each chapter picks out a detail of the public finance reform process and analyzes the changes in a particular dimension. This first chapter is intended to show what the various, specific changes have in common, and how far general trends can be discerned in the specific measures of reform.

No one has prepared a comprehensive "master plan" in advance. No blueprint for public finance reform has ever been drawn up in detail. Some of the changes have followed relatively thorough, considered programs. Others have arisen by improvisation and experiment, through a process of groping back and forth, or perhaps at a forced pace, under the pressure of circumstances. Nonetheless, there is a common philosophy running through the thinking of the reformers who devise the changes. The term "reformers" actually covers quite a heterogeneous group, in terms of political and professional past and present outlook on the world, but it is not their rhetoric or lines of argument that are being examined. The common philosophy appears in their deeds, in the changes they make, not in their words.

CITIZEN SOVEREIGNTY AND THE STATE

The starting point is not an exposition of the problem of state finance in the narrow sense. The examination has to begin at a deeper level, with the relation between the individual and the state. This historical and sociological aspect is amplified by an ethical point of view. Where do the borders of a citizen's individual freedom run? How far does the state limit this, citing the rights of the other citizens?

History has not drawn a dividing line, applicable once and for all, between the decisionmaking provinces of the individual[1] and the state. The dividing line is sharp in some places and blurred in others, and subject to frequent shifts. The socialist system, especially in its most pronounced classical form, went to extremes in limiting the rights of individuals, so that the state became all but omnipotent. To expand the range of individual sovereignty, with the complementary change of narrowing

the range controlled by the state, was among the basic achievements of the change of system. What occurred was not a minor border adjustment, but a massive change of dramatic importance, resulting in a new borderline that lies far from the old. This process is far from over, for there are important alterations still to be made, but the changes made so far have already radically reshaped the lives of individuals. The main changes are looked at one by one. The details of each are discussed thoroughly in the following chapters of this book.

Individuals as Entrepreneurs

Private enterprise was banned under classical socialism. It was tolerated under later reform socialism, but kept within narrow bounds.[2] The barriers to private enterprise came down with the change of system, and the oppressive predominance of the state sector ended with the privatization of most state-owned assets. This made competition between firms possible in practice. Reform of the welfare sector has opened the way for private enterprise to enter this sphere as well.

Here and in other respects, there are two aspects of the borderline between the provinces of the individual and the state to analyze. On the one hand, what do the regulations permit? On the other, what does the real balance of power allow? The state, as legislator, may prohibit or permit individuals to exercise certain functions. However, if permission has been given, has the state left sufficient resources in individuals' hands for them to exercise the formal right they have received? The phenomenon of "crowding out" is not confined to credit demand. It appears in other economic processes as well. In this case, codifying the freedom of private enterprise and eliminating the oppressive crowding-out effect of state ownership, through privatization, are complementary measures.

The change, as this book shows, has profound consequences for state finance. On the revenue side, it abolishes the easy option of collecting taxes directly from a few thousand large state-owned enterprises. The state can no longer use the easiest of tax-collecting techniques, whereby a monopoly state-owned bank simply deducts the sums due to the state from each enterprise's account. Instead it has to install the tax system of a modern market economy to collect tax from several hundred-thousand firms and millions of private individuals. On the expenditure side, the state no longer has to finance the vast bureaucratic apparatus required by a command economy. Most of the functions of that apparatus are taken over by market coordination of economic activities. There is no need to support loss-making firms, or even whole industries, for indefinite peri-

ods, so that the system of subsidies for this purpose can be dismantled. Bailouts, which have not been eliminated in Hungary and revive from time to time, are becoming exceptional. A soft budget constraint attracts notice these days, and certainly does not count as standard practice. In the case of private firms, they either continue to operate or exit, with the owners, or in a case of insolvency, the creditors and courts, having the right to decide which should occur. Owners, not the state, are responsible for keeping firms alive. If the owners can do this, let the firm continue. If they cannot, from their own resources, with credit, or by raising capital, the firm should not survive.

Individuals as Savers and Investors

Individuals under classical socialism were entitled to deposit their savings in a bank, which held a monopoly on deposit collection from households. In the bank, these savings earned an often negative rate of real interest, set by the state. Deposits by households formed a very small proportion of the total savings in the economy. Individuals lacked the chance to save more, and had little incentive to do so. Another crowding-out effect was at work. The savings objectives common in a market economy, such as children's education and building up a reserve in case of sickness or for old age, were eclipsed. There was a paternalist state that looked after such needs after its own fashion, and withdrew from households the part of their income that they might have saved for such purposes.

Only the agricultural population had opportunities, albeit limited, to make real investments that could yield a market income. These agriculturists could farm the small "household plots" assigned to them by the collective farms. In general, the savings available for investment, and investment itself, were highly centralized. Indeed this may well have been the most centralized segment of the economic sphere.

Passing over the initial, transitional measures taken under reform socialism in Hungary, let us look at the present situation. The choices open to individuals in making savings and investment decisions have widened immeasurably. There are several competing commercial banks, offering different bank deposit terms. The convertibility of the forint gives individuals a choice between currencies. The palette includes a range of state securities, bank and corporate bonds, investment fund units, and a long list of company stocks. There are brokerage companies offering their services. The relative proportion of household savings to total savings has certainly increased, although the proportion of income saved varies, of course, according to income levels.

The role of corporate savings also has increased. There has been a considerable decentralization of investment decisionmaking. Most real investment is allocated by firms, with the capital market as an intermediary, not by a central planning office. This change is reflected in the structure of the budget, where the proportion of investment on the expenditure side is much lower than it was under the classical socialist economy.

Individuals as Employees

Classical socialism actually aspired to allocate labor centrally, as it did with materials and machinery, but it never managed to do so entirely. Individuals managed to retain some sovereignty, within narrow constraints that were often demeaning and degrading to human dignity. The allocation of labor clearly had consequences for state finance. It meant maintaining an apparatus for labor allocation and wage controls, and, not least, for surveillance and policing of people's thoughts and behavior.

The change of system basically transferred the allocation of labor to the labor market, which has increased the individual's autonomy when choosing a job. However, there is a dark side to this: security of employment has ceased. Although the numerical rate may change over time, unemployment has become a permanent phenomenon. Its effect is only mitigated in part by institutional forms of unemployment insurance and financial benefits that Hungary was relatively quick to develop.

Individuals as Consumers

The classical socialist system hampered individual rights in two ways. First, it curtailed these rights because some of the goods and services consumed were made available to citizens "free," or almost free, at nominal prices. That was the case with childcare, health services, education, care of the aged, and housing among the urban population. The state deducted in advance the financial resources required to finance these segments of consumption, and distributed them by central fiscal allocation. In turn, "free" services and "low rents" meant that it was not individuals, households, or families that decided these expenses, but the state, or rather the leading group in the political dictatorship and the central planners acting in the state's name.

One of the most important trends in public finance reform is expansion of the decisionmaking sphere and responsibilities of individuals and families in the consumption sphere, coupled with a contraction of the role of the state, which provides paternalist care, but occupies a position

superior to the rights of individuals and dictates to them. This process is not over. Several of the studies in this volume deal in detail with how far the reform has gone in Hungary.

Second, the system usurped consumer sovereignty. The damage to consumer sovereignty was not confined to the segments where it has almost ceased completely (health, education, housing, etc.). It was also seriously constricted in the segments left within the competence of households (food, clothing, urban transport, etc.), because consumer prices differed from proportions reflecting relative scarcity, due to a web of arbitrary and whimsical turnover taxes and price subsidies. This had several implications for public finance as well. The turnover taxes formed one of the main sources of revenue, while the price subsidies were a serious fiscal drain.

One important component of public finance reform is the elimination of state price controls and the differentiated taxes and price subsidies on consumption. This can even be seen as a distinct trend, although it ties in partly with the changes described above.

The dismantling of state price control and differentiated taxes and price subsidies is almost complete in Hungary. This has substantially enhanced the ultimate manifestation of consumer sovereignty, whereby the sovereign choice of households ultimately exerts a decisive effect on the allocation of resources.

This book employs in several places compound fiscal indices, such as the proportion of consolidated budget expenditure to gross domestic product (GDP), to indicate the size of the state. The point being made is that when this fiscal index decreases substantially, as it has in Hungary, this is not just a financial event. Behind it lies a radical alteration in human ways of life, with a strengthening of individual sovereignty and an increase in freedom of choice.

THE ROLE OF THE STATE

The previous section treated the role distribution between the individual and the state as a one-dimensional problem: the greater the province of the state, the smaller the province of the individual, and vice versa. Although this aggregate approach sharply shows the main outlines of the trend, it is insufficient for a thorough understanding of the changes. It is not simply a question of the state, as a whole, becoming "smaller." Far more it is a question of its becoming different. Take, for example, the various functions of the state. It is not adequate to consider a simple di-

chotomy between a minimal "night-watchman" state and a maximal totalitarian state. The state's various functions can be exercised to various extents by various means. The reform produces a different configuration, which departs from the one before the reform. Without aiming at completeness, let us look at four functions.

The State as a Means of Political Tyranny and/or Law Enforcer

The state under the classical socialist system is primarily a means of political tyranny. Much of its expenditure goes to forcing on society the will of the political group in power. Of course every state has a coercive function. It has to ensure that the law and private contracts are observed, and needs judges, prosecutors, police, and prisons for the purpose. The socialist system superimposes on this function the additional costs of political tyranny. It has to maintain a monopoly organization of political power—the communist party apparatus. It needs to support a political police force employing an army of informers, investigators, and interrogators to persecute all forms of political opposition. It has to finance personnel departments to allocate personnel within the leading stratum to act as "thought police." It requires a penal system to incarcerate and torture the masses of political prisoners. This class of expenditure ceases to weigh on the state budget after the change of system.

Meanwhile, some of the conventional police functions undergo a privatization process. Part of the role of the publicly funded police force is taken over by security guards, paid for by individuals or firms and operating individually or in association. The number of "private police" in Hungary may even be higher than the number of public police. This change poses problems. The weakening of the public police force has damaging external effects. Privatization leaves many citizens without proper public protection. At times, the private police become entangled with organized crime.

Parliamentary democracy, constitutionalism, and the enforcement of private contracts cause new public spending not incurred under the socialist system. Examples include public contributions to election campaigns, referendums and the operation of parties, maintaining a larger judicial apparatus to cope with a greater amount of civil litigation, and financing the constitutional court and the parliamentary ombudsmen to protect civil rights.

To sum up, there are public financial costs specific to both dictatorial and democratic political regimes. Unfortunately, there have been no nu-

merical estimates to compare them. In Hungary's case, the public costs of democracy (in the narrow sense of fiscal spending) appear to be lower than those of dictatorship, irrespective of the difference in the political and human-rights implications of the two forms of political rule.

The State as Owner

Under the classical socialist system, the overwhelming proportion of the means of production is state-owned. The state exercises the basic property rights: the right of control, through central planning and the multi-tiered hierarchical command economy, and the disposal over the residual income after deduction of costs, through direct control over the cash flow.

From the public finance point of view, there is a notable lack of a distinction, in the conventional sense, between taxation and profit. To use the technical expression current at the time, "centralized net income" flows into the state coffers. It is for the state to decide what price it attaches to any product or service, what wages are paid, and what turnover tax will be added to the resulting price. So it also depends largely on a state decision what part of the net income accruing to the state is called profit and what part is called tax. The dividing line between the owner-state and the tax-levying, tax-collecting state disappears. The state is at once the producer and seller of goods and services and the institution that taxes the production process. The latter did not require a separate apparatus.

This dividing line appeared after the change of system due to widespread privatization. State ownership has been confined to a narrow band. Even within this band, international and domestic competition and the laws governing it oblige the state to run its enterprises more or less as if they were private firms working for profit. The state ceases to act as the controller of production, at most intervening in production under decentralized control. There is room for debate on how often this should occur, under what conditions, and by what means. In any case, this is certainly a far more modest influence than the direct control of the command economy used to be.

Parallel with this change come the elimination of the bureaucracy exercising ownership functions and the development of the bureaucracy performing tax-collection functions. This process has not yet ended in Hungary. Even if the latter bureaucracy expands further, it will certainly remain smaller than the former used to be.

The State as Supervisor

Under the classical socialist system, the state as owner and controller of production did not exercise supervision over itself. If there was any supervision of state organizations and public officials at all, it took place from a political point of view. To some extent, the communist party and its coercive organization, the political police, duplicated or triplicated the state apparatus.

The expansion of private enterprise and the decentralization of decisionmaking call for the development of new supervisory institutions. This explains the establishment of the State Audit Office to perform general financial inspection of bodies spending public funds. Inspectorates for banking, the security market and insurance, and consumer-protection institutions have been founded. This process is not over in Hungary. There are still many privatized, decentralized spheres where state supervision is superficial, and the legal basis for the supervisory rights and obligations have not been clarified.

The State as Redistributor and "Last Recourse"

Inequality in the distribution of income was relatively slight under the socialist system. The state achieved an income-leveling effect not by differentiated taxation of income or wealth, but mainly by restricting wage differentiation and allocating certain consumer goods and services in a relatively egalitarian way. Hungary was in the forefront of the socialist countries in its universal distribution of welfare entitlements. This was the Sweden of Eastern Europe, for the depth and comprehensiveness of the redistribution. The egalitarian tendencies were only eroded in part by the income differentiation openly used as an incentive and for meritocratic reward, and by the effects of hidden privileges, corruption, and personal and political connections.

Again, the spread of private ownership and the market have brought significant changes. The squeezing of wage differentials into a narrow band continued only for public employees. Incomes in the increasingly dominant private sector have become distributed over a much wider range by the market, which sets much wider differentials between occupations, activities, and individual achievements. Incomes and wealth have been differentiated further by random effects on market processes, inheritance of private property, and other factors.

Now the state can only employ one weapon as a redistributor: differentiated taxation of incomes, and to a lesser extent, consumption.[3] This is

complemented by the largely free universal provision of education, health care, and other welfare services, which also has a strong redistributive effect.

The switch from the old kind of redistributive activity to the new has only partly and semi-successfully taken place. Targeting at each end of the distribution is poor. On the one hand, too wide a range of recipients is entitled to free or almost free provisions, so that too little is available for those who really rely on the support of social solidarity. On the other hand, the tax system leaves too many loopholes. There are large amounts of income, wealth, and consumption that evade taxation by fraud. An even greater proportion of income, wealth, and consumption avoids taxation because of the clumsiness of the law and the way it is applied.

Intervention by the redistributive state in the market distribution of incomes can take place according to several criteria. The choice of criteria is one of the most disputed questions in the discipline that has grown up on the boundaries between economics and ethics. Some schools of thought call for a high degree of activity by the state to ensure an equitable distribution of incomes, while others reject this. However, there are some minimum requirements that they all wish to see fulfilled. There is wide agreement that the state should function as a "last recourse" for all citizens, that it should not allow their living conditions to fall below a level worthy of human beings.

The socialist system had its own set of techniques for fulfilling this requirement. One of the main instruments was the soft budget constraint: enterprises and other organizations that would not have been viable under market conditions were sustained artificially under conditions of full employment and labor shortage. No one was made redundant. This was matched by police-state methods. Anyone who still did not work, or who begged, was branded as a parasite, an idler posing a public danger, and forced by the police to work. There were no homeless, because vagrants would be placed in a crowded mass hostel, shut up in a mental institution, or prosecuted for work evasion.

The constitutional state of the new regime, with its respect for human rights, could no longer make use of such methods. The universal entitlements only provide in part the special assistance required by those whose means fall below an acceptable minimum. Numerous measures have come into force, but the system of social assistance still amounts to only a loose safety net. Although this book holds no brief for the earlier methods of redistribution, it argues that the reformed state should perform its "last recourse" function more fully and reliably than it has so far.

THE RULES OF DEMOCRACY AND THE TRANSPARENCY OF FISCAL POLICY

It follows from what has been said so far that present conditions, and those that follow consistent implementation of the reform, still leave a state, on a significant scale, responsible for performing a variety of functions. One major task of the reform is to ensure that the government fulfils these tasks according to the rules of a democracy.[4]

It becomes easier to apply the procedures of parliamentary democracy consistently if fiscal policy becomes more transparent. Transparency is a complex requirement; here are some of its constituents. Let it be clear to every member of Parliament, and ultimately to every citizen, what connection there is between the revenue and expenditure of the state. Let every actual item of state revenue and every actual item of state expenditure appear openly in the figures of the state budget, and not be hidden away in extra-budgetary forms, concealed from the scrutiny of the legislators and ultimately the public. If a state program or action has an effect either on state revenue or state spending, let this be reflected clearly in the budget. Let every item of expenditure appear under the expenditure of the state organization concerned, where it occurs and under a heading that adequately expresses the economic content of the expenditure. Instead of a comprehensive, theoretical definition, the account that follows offers some specific examples to help clarify the requirement of transparency.

Parliament

Parliament has to be the most important theater in the political process. Parliament decides on the state budget, and if it wishes, it can take action on the expenditure and revenue of the budget, in any degree of detail. On the other hand, it cannot intervene directly in the allocative decisions taken by banks and other financial institutions, and by "extra-budgetary funds" withdrawn from parliamentary authority. Parliamentary regulation and control require that the financing of state functions should not circumvent the budget, but occur in a way clearly built into it. The Hungarian reform has taken several important steps in this direction:

- Printing money to cover the budget deficit clearly has grave inflationary consequences. Some politicians would like to see this done, nonetheless, because it would release them, at least in the short term, from some difficult dilemmas. The deficit could then be covered without cutting expenditure or increasing taxation.

One of the important achievements of the Hungarian reform is that this technique is only allowed within a narrow band. Strict limits to monetization of the budget deficit are applied by laws governing the budget and the central bank.

- The bank consolidations, which swapped poorly performing loans for state bonds, made plain the real situation, hitherto concealed: the burden is borne by the state managing the taxpayers' money, not by the "business world."
- Handling of the public costs associated with the continual exchange-rate adjustments relating to the accumulated debt have been readjusted between the National Bank of Hungary and the state budget. Here too the principle of transparency has been applied. In effect the state (not its central bank) became indebted in relation to the outside world. So the real financial consequences of this debt have to be recorded frankly and honestly in the budget, not in the accounts of the central bank.
- The National Bank of Hungary and the financial administration have rightly resisted pressure to reduce the interest burden on the state by artificial administrative reductions in interest rates. Interest is basically a market category. The burden of the state debt is as much as appears when the calculation is made with the interest accepted by the market. This has to appear clearly before the legislature in the budget.
- A start has been made to restoring to the budget the "extra-budgetary funds" actually financed by the state, although the process is still a long way from completion. The legal status of the so-called social insurance funds remains an open question. Ostensibly they are autonomous bodies, although their revenues actually derive from compulsory contributions levied and collected like taxes. This is where the soft budget constraint still applies on the most grandiose scale. The state has a legal obligation to cover the deficit at any time.

Politicians and Bureaucrats

Even in countries with long democratic traditions, there is a game of "cat-and-mouse." On the one hand are the government members, delegated by the parties in power, and the bureaucracy cooperating with them, and on the other, the parliamentary politicians. Intentionally or unintentionally, the former group conceals the real range of options from

the latter, and tries to suggest there is only one possible solution—the one it happens to be promoting.

The budget documents are hard to interpret. The essential economic-policy relations fail to show up from the great mass of figures. The alternative choices are not explored sufficiently during the preparations for governmental decisions.

There is a related problem with the attitude to the budget taken by the rival political parties. Any important measure of economic policy has fiscal implications, but the parties shrink from presenting these openly. Parties have fewer opportunities for concealment when they are in government, but parties in opposition are all the more inclined toward it. There is a great temptation, when in opposition, to go for easy popularity—to promise a policy that will cost more without saying how the money will be found, or to talk of lowering taxes without specifying what spending cuts will be made.

While this book was being prepared, an election campaign was taking place in Hungary. No party wants to show all its fiscal-policy cards while the competition for votes is on. The country faces reforms that will benefit the vast majority of the population in the medium and long terms, but in the short term, some people may lose by them, or simply fear they will lose by them. This is what prompts politicians to conceal the fiscal dilemmas.

Tax Awareness

The phenomena discussed under the previous subhead tie in closely with the fact that the Hungarian public is not sufficiently tax-aware. There is a great deal of fiscal illusion. Many citizens insist on the state providing various services without realizing to what extent these contribute to reducing their net earnings.[5]

Although this book deals only in passing with the political economy of the fiscal reform currently taking place in the transitional economy, those who wish to study that subject in detail will find many interesting items of information here. It is certainly a subject that requires further research.

SUSTAINABILITY

One of the main instigators of the process of fiscal reform across the world, not just in the post-socialist transitional countries, is the recognition that the balance of the public finance system is being jeopardized by

too low a level of revenue and too high a level of expenditure. In many cases, budget deficits (and where there are twin deficits, the accompanying deficits on the current account) have already caused both internal and external payments crises. This pulls the trigger that releases a burst of restrictive measures. In more fortunate cases, where the government is wiser and more vigilant and farsighted, it takes preventive measures, rather than waiting for the crisis to occur. That is what happened in Hungary in the spring of 1995.

However, those who study this book closely will see that in Hungary's case, this was and remains far more than a question of averting an acute crisis. In the short term, it was enough to restore the requisite macroeconomic proportions by reducing the foreign-exchange rate sharply, introducing a new predictable exchange-rate regime, imposing an import surcharge, cutting back some items of state spending, and, perhaps most painfully and effectively, drastically reducing real wages. However, what was capable in the short term of reducing the barriers to growth caused by the serious disequilibrium will certainly not suffice in the long term.

Well-known analyses of several stabilization episodes have reached the conclusion that the way to avoid persistent disequilibrium is to try to curtail the expenditure side, rather than extend the revenue side.[6] Hungarian experience, and the Eastern European experience of post-socialist transition in general, suggest a different classification of measures. Lasting equilibrium is far less likely to result from adjusting the quantitative macroeconomic parameters than from carrying out institutional changes. If, during times of trouble, it is possible to shift a quantitative indicator in one direction, it will be possible to shift it back in the opposite direction once the trouble has passed. Since the situation usually improves after the threatened or actual crisis has been overcome, politicians are tempted to become overconfident again, and spoil what they improved. So changes in the numerical value of certain macro-parameters are not enough to bring lasting results. There have to be changes in the institutions that ultimately generate the numerical values of those parameters.

It is worth looking at a few examples on the expenditure side. Total spending on wages by the state sector will only be reduced temporarily by restraining the rise in the nominal wages of public employees, as Hungary did in 1995–96. It will be reduced permanently if the state performs fewer functions, or if labor-intensive functions give way to less labor-intensive ones. Total expenditure on the state apparatus can be reduced permanently if the state-owned sector of production contracts, and

with it the bureaucracy exercising the state's ownership functions over the sector—in other words, if privatization progresses in every possible sphere. The greater the extent to which the corporate sector and the general public look after themselves, the smaller the segment that requires state transfer payments. Hungary has made encouraging progress with these institutional changes.

Revenues can also be increased permanently, but not by raising the rates of existing taxes, or, other circumstances being equal, by simply reducing the rates and hoping that will encourage many more people to voluntarily join the taxpaying ranks. Again, the main weapon must be institutional reform: altering the tax regulations or introducing new types of taxes and catching those who have escaped taxation, so as to widen the tax base. Methods of doing so might include introducing taxes on real estate or agricultural land, or strengthening the institutional frameworks for these taxes where they already exist. Mention can be made here of the need for radical revision of the tax exemptions and cost-accounting concessions for the self-employed, small and medium firms, and the corporate sector in general. Under the same head come the spread of co-payments for previously free health services and student contributions to the tuition costs of higher education, as fees or as loans to be repaid later.

It is a notable feature of Hungary's development that it has boldly embarked on this course. The significance of the 1995 adjustment and stabilization program does not simply lie in the fact that tough measures were taken to restore the macroeconomic balance, which, from this point of view, placed the economy on a course toward sustainable economic growth. At least as important was the message the program conveyed, perhaps only symbolically in some respects. It announced to all concerned that there were no absolute taboos among the institutions of state expenditure and revenue. Previously universal entitlements can be turned into targeted entitlements. Full or partial contributions can be requested for previously free provisions. Strata hitherto exempt from certain taxes or tax-like contributions can have their exemptions withdrawn.

So Hungary has embarked on a course of institutional changes to ensure lasting fiscal equilibrium, but it is still a long way from the end of the voyage. This book describes how many of the tasks still need to be undertaken.

INITIAL CONDITIONS AND GRADUALISM

One important requirement for success in the reform process is a sober assessment of the initial conditions. This would be platitude if the world

had not seen several cases where this simple rule was broken. It is especially important to note, as mentioned in the previous section, that this is not just a matter of altering the macroeconomic parameters (devaluing the currency or changing tax rates or customs tariffs, for instance), but of making institutional changes. There are strong forces of inertia at work here. If an existing institution is broken up too hastily, before there is another new institution capable of performing its functions, the result will be an institutional vacuum that leads to anarchy and abuses.

A serious analytical error is committed by those who advise Eastern European countries like Hungary, starting out with a "big" state, to follow the example of the South-East Asian tigers, or even the United States, and leap from a "big-state" to a "small-state" position. This is politically and socially impossible. Hungarian society has not been socialized in that way. Its social norms are shaped differently.

Take, for example, the institutional reform of the health service. In a country where a national system of basic care financed out of tax-like contributions has not developed, there is a realistic alternative of retaining a decentralized health system and remedying the shortcomings within its general framework. That is the starting point in the United States, for instance, which is why there is very strong resistance to partial nationalization and centralization of the health service. The situation is the opposite in Eastern Europe, where the initial state is an operating, albeit inefficient and in many ways distorted, health service in public ownership, publicly financed by tax-like contributions. Meanwhile the private sector is still quite narrow and hardly any private health insurance has emerged. That is the starting point here. That is what has to be transformed, to allow private enterprise, decentralization and competition, with all their advantages, to emerge alongside it as fully as possible, but without jeopardizing the operability of the system for a moment.

Two kinds of mistakes can be committed when reforming institutions. One is a hapless combination of hasty destruction and misapplied "social engineering." That is the behavior Hayek disparagingly termed "constructivism."[7] The other is a blind faith in spontaneous evolution, in the desirable social institutions appearing of their own accord. For the institutions of the state do not die and are not born in a spontaneous way. They have to be abolished or established by laws and regulations, by active administrative organizations. An excessively patient reformer will indeed shrink from the political difficulties of the transformation, take fright at the resistance, and give up the struggle for reform.

It is to the credit of Hungary's public finance reform that it has seldom committed either of these mistakes, and if it did, it recovered quite

quickly. Although the reform has progressed at different speeds, faster in some spheres and slower in others, many important changes have been made. Taking the public finance reform as a whole and ignoring the jumps in some areas, the overall process can be called a gradual one. The reform has speeded up particularly since the 1995 stabilization package. Of course some elements of the institutional changes take effect on a particular day in the calendar, which may cause a "jump" in the process affected. This may apply, for instance, to the introduction of co-payments, to the new division in the allocation of pension contributions, and so on. Sometimes a whole group of new rules comes into force at once, which magnifies the impression of a sudden change. However, when the totality of the hundreds of changes and the process of these in time are viewed from a little further away, the picture is of gradual transformation after all. Perhaps the characteristic pace of the Hungarian transformation might be described as a hurried gradualism. It is gradualist in consisting of many small steps, but it is not immaterial whether the steps are taken at leisure or at speed. From a historical distance, looking at the average rate of change over several years, the process of reform in Hungary can be classed as quite rapid.

Post-socialist transition has already exacted many sacrifices from the present generation, including some whose benefits will not be felt in their lifetime. It should be added that a fall in real wages or the loss of a job is not the only loss felt. There may be a sense of loss from the change itself. It is a big problem for every participant in the transformation to adapt to the new institutions and the new rules of the game.

This was one of the questions that arose in the debates between those devising the financial reforms and Hungary's Constitutional Court. Several elements in the judicial ruling are disputable, but even the most ardent reformer must abide by the humane principle that all citizens must be given time to adapt. No one needs to be given a dispensation from adapting to new conditions of the Hungarian market economy. The reformers have a right and a duty to transform the Hungarian state. But let them do it in a way that leaves enough time for those affected to prepare for the transformation. If there are funds to do so, let them award the relative losers some temporary compensation (or partial compensation if that is all that can be afforded), but let them stress at the same time its temporary nature. Doing so reduces resistance and encourages the adaptation to take place before the temporary assistance is withdrawn.

CHOICES OF VALUES

This volume has been compiled with sponsorship from the World Bank, where both the editors and some of the authors are employed. This inter-

national institution is obliged by its charter to remain outside the domestic political struggles in its member countries. For a long time, the publications of the international financial institutions in Washington, D.C., tried to give the impression that this principle also meant they were obliged to adopt a "value-free" point of view. They were not to be guided by criteria other than the technocratic requirement of efficiency.

This is an untenable approach. In any case it was honored more in words than in deeds in the past. It is a matter for debate what choice of values the international financial institutions in Washington, D.C., have reflected in their actual operation and what values they reflect today. They were probably not invariable over time, and probably not uniform in each institution and its various activities.

To return to the narrower subject of public finance reform, it would be a mistake to give the impression that this book is "value free." This is a "pro-reform" collection of articles. Positions can be deduced from every chapter. The authors evaluate the progress made so far and recommend further tasks. From all this it becomes apparent that what the authors collectively support is not just any reform. They consider changes in a specific direction to be justified and desirable. Below is a brief summary of the main value choices expressed in this book:

- The book refrains from either extreme in considering the tradeoff between the autonomy of the individual and the protection of the individual by the state. It advocates that society should make a shift toward greater individual sovereignty, compared with the situation before the change of system. All in all, this means a reduction in the role of the state and establishment of new state organizations compatible with the market economy.
- Where possible and rational, the earlier centralized institutions should be replaced by decentralized ones. This decentralization is not simply a means of more efficient operation. It has value in itself, because it increases the scope for initiative, and reduces the individual's dependence on the political sphere and political power.
- The requirement of social justice can be interpreted in several ways. The idea expressed in this book is that if state subsidies provide shelter from the consequences of poor performance, this conflicts with the public's sense of justice. The same applies if rich and poor alike receive state subsidies paid for out of the taxpayer's pocket. The state should primarily assist those in need of help, and primarily in ways that support their efforts to adapt.

- It is not just the fiscal anxieties of economists that call for sustainable proportions between state revenues and expenditure to develop in the long term. The same demand arises from the desire to see that benefits and burdens are equitably distributed between generations. This generation has no right to leave "time-bombs" for the next generation in the form of defective financial constructions in the budget system, including pensions, health care, or education.
- The transformation of society requires many people to make sacrifices. This book expresses the important value choice that financial reformers have a dual responsibility. On the one hand they must struggle boldly for the requisite changes, not shrinking from unpopularity. On the other they must do so in a way that minimizes the inescapable sacrifices and gives special protection to those unable to protect themselves.
- Public finance reforms can take place in a wide variety of political environments: under autocratic regimes or military dictatorships, or in parliamentary democracies. It is not immaterial to the authors of this book which case applies. They support reforms that are compatible with the social, legal, and ethical norms of political democracy, indeed not just compatible ones, but those that positively facilitate democratic procedures, above all by ensuring transparency in the financial processes.

The Hungarian public finance reform has not always managed to apply these values totally. However, this book shows that they have been realized to an appreciable extent, and that those who have played and will play a part in preparing and implementing the reform strive to conduct themselves in a principled way.

NOTES

1. The problem of what division of decisionmaking spheres and responsibilities there should be within the smallest community, the family, is disregarded in this chapter. These remarks on the rights and responsibilities of individuals apply both to individuals in the narrow sense and to the family community.

2. Beginning in the 1960s, the classical Stalinist version of the socialist system gradually gave way in Hungary to the "reform-socialist" version. The political dictatorship softened to some extent. The methods of a command economy were replaced by halfhearted, partially successful market mechanisms, and private firms made their appearance. In most places, to make the comparison clear, the various intermediate grades of the long reform period are overlooked in this

chapter, and the present state compared with the pure case of classical socialism. (For a comparison of the classical and the reform-socialist versions, see Kornai, 1992.)

3. Taxation of wealth, notably real estate, has not yet taken place in Hungary to a significant extent.

4. On the relation between fiscal policy and its political and institutional environment, see Cangiano (1996), De Haan and Sturm (1994), and Tanzi (1997).

5. In an international survey, citizens were asked how they felt when they pay their taxes. Do they feel they have had money taken over from them—or do they feel they have "contributed" to something? Of the Hungarian respondents, 56 percent gave the first answer and only 14 percent the second. With the Dutch the proportions were reversed: 14 and 69 percent. See Varga (1993). Furthermore, on tax awareness, see Csontos, Kornai, and Tóth (1996a, 1996b) and Kornai (1997).

6. See Alesina and Perotti (1995), and Giavazzi and Pagano (1990 and 1996).

7. See Hayek (1960 and 1967).

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PART I

THE MACROECONOMIC CONTEXT

2 The Setting: Macroeconomic Policy in Hungary in the 1990s

Jean-Jacques Dethier and Witold Orlowski

Hungary experienced high output growth and increasing living standards from the mid-1960s to the mid-1970s, with average gross domestic product (GDP) growth of 6.3 percent during 1966-75. The increase in consumption—and living standards—began to be financed around 1975 by accumulating foreign debt. During the 1980s the average yearly growth of household consumption was 2.2 percent, while fixed investment grew only by 0.8 percent during 1976-87. During the same period, output grew at an average annual rate of 2.7 percent and by the end of the 1980s, was growing by only 1 percent a year.

It is beyond the scope of this book, which focuses on public finances during the 1990s, to analyze the causes of this decline. Kornai (1996) shows that the emphasis on consumption and the neglect of investment, which persisted even as aggregate growth was declining, can be attributed to a strong time preference for the present, as opposed to the future. Even though economic trends were apparent, they did not elicit any major change in the direction of policy on the part of the authorities which, under the Kádár regime, strongly favored gradualist policy changes and accommodation, as opposed to shock therapy and confrontation. Gradualism implied that emphasis was put on social compromise and private consumption rather than growth and investment. Social appeasement and emphasis on consumption have translated into increases in household transfers, the financing of which has required—after the switch to a market-based taxation system—very high payroll taxes. These high rates of wage tax have, in turn, facilitated the development of an informal economy, already tolerated before 1989. On the other hand, the emphasis placed by policymakers on maintaining high living standards led to the adoption of macroeconomic and exchange rate policies that have tended to keep the currency overvalued, thereby cheapening imports at the expense of exports.

As some features of the economy had been reformed much earlier, Hungary was economically in a better position than Poland or Czechoslovakia to respond in 1989 to the shocks linked to the transition from socialism to a market economy, including the fall in external demand due to the collapse of the Council for Mutual Economic Assistance system,

Table 2.1 ***Adjustment Programs in Hungary, Poland, and Czechoslovakia*** **(percentage change)**

	Poland	Czechoslovakia	Hungary	
Economic variable	*1989-91 program*	*1989-91 program*	*1989-91 program*	*1994-96 program*
Real wage	-32.7	-30.3	-11.2	-10.5
Public consumption	-6.1	-6.3	-0.2	-12.8
Real money supply	-29.3	-32.6	-4.5	-12.8
Real exchange rate	-15.6[a]	-11.9	18.1	-4.0[b]

a. 1989-1990.
b. 1994-1995.
Sources: International Monetary Fund, World Bank.

the adjustment in relative prices, and the sudden decline in output (real GDP fell by 3.5 percent in 1990 and by 12 percent in 1991). Foreign direct investment by Western companies was higher than in other socialist economies and export performance was better. Unlike the neighboring countries, a vibrant domestic private sector, encouraged by the authorities during the 1980s, existed, and its expansion compensated partly the contraction in the publicly owned productive sectors. In spite of those positive features, economic performance at the beginning of the 1990s was negatively affected by two initial conditions. First, foreign debt, which was composed mostly of short-maturity loans, had reached an alarming level.[1] Second, the propensity to favor consumption over investment and the premium placed on social appeasement implied a tendency to favor economic and social policies that avoided, as much as possible, declining living standards—thus compensating the fall in earned incomes with increases in unearned transfer income, and allowing the real exchange rate to appreciate.

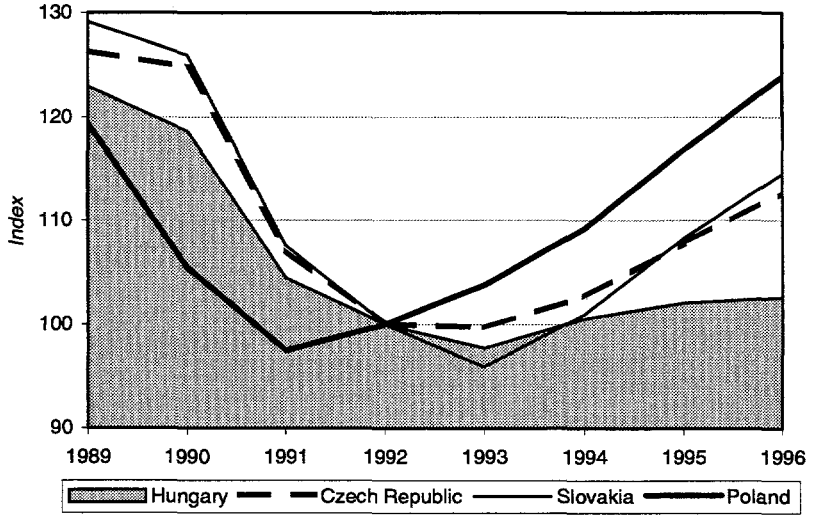
These factors partly explain why macroeconomic adjustment was initially milder compared to Poland and Czechoslovakia (table 2.1). In late 1989, to avert a foreign-exchange crisis, the government implemented a stabilization program that included tax increases and expenditure cuts, a devaluation of the forint and stricter travel allowances, and a tighter monetary policy. It also negotiated a rescheduling of its external debt choosing, unlike Poland, to continue servicing the debt fully and on time to maintain its access to international financial markets. The program pulled Hungary from the brink of default and showed considerable success by bringing the current account in surplus and the budget in bal-

ance as early as 1990. It was also successful in maintaining the flow of foreign direct investment and led, by 1992, to a decline in inflation.

However, after this successful adjustment, economic performance began to deteriorate. Relative to the other Visegrad countries, in which growth was resuming, the recovery in Hungary took place much later and GDP grew very modestly (figure 2.1). By 1996, while GDP had increased between 12 and 24 percent from its lowest level in Poland, Slovakia, and the Czech Republic, it had recovered only 6 percent in Hungary. This poor comparative performance has been attributed to several factors, the most important of which are differences in the trade liberalization regime, in enterprise and banking reforms, and in bankruptcy legislation[2] (De Melo, Denizer, and Gelb 1996). One of the key factors behind the slow recovery that followed the "transformational recession" in Hungary, namely the delay in implementing fiscal adjustment measures and structural reforms in the public sector, is the main subject of this book.

As a result of the 1989-90 adjustment program, the authorities were able to bring the budget—*as measured by official figures*—almost into

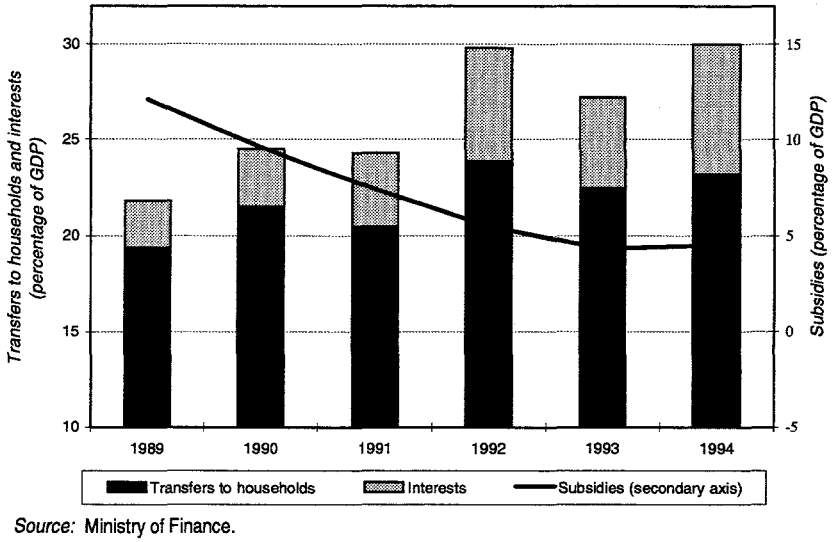
Figure 2.1 ***Economic Performance of Hungary 1989-96 Compared with the other Visegrad Countries*** **(GDP index, 1992 level equals 100)**



Sources: International Monetary Fund, World Bank.

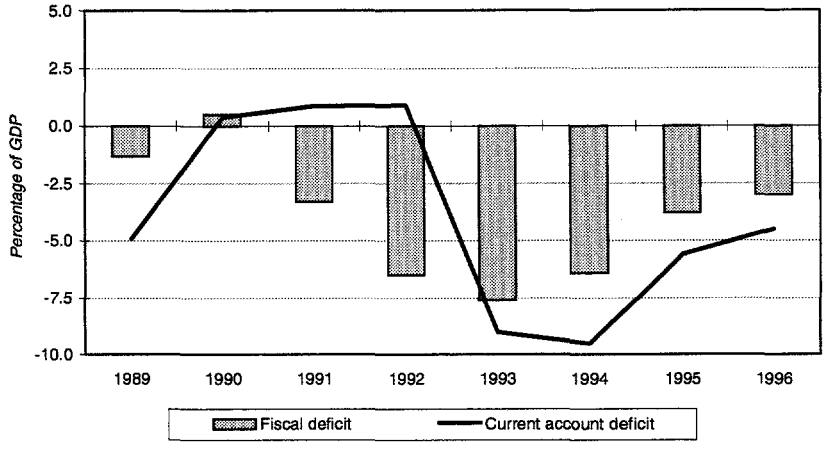
balance. This is discussed further in chapter 3. Public expenditures declined from 61 percent of GDP in 1989 to about 55 percent in 1991. This was largely the result of a reduction in subsidies to enterprises, and savings on government consumption, investment, and in-kind transfers. The budgetary savings in these areas were, however, accompanied by increasing cash transfers to households and growing interest payments (figure 2.2). Starting in 1992, government expenditures began to grow rapidly again (by 4 percent of GDP during 1991-92), which can be partly explained by political efforts to avoid a real decline in most budgetary transfers to households. Since the tax base shrank as a result of the recession, the budget deficit increased sharply to an average of 7 percent of GDP during 1992-94. Budget deficit growth was accompanied by a sharp decline in private savings. Household savings, having reached 15.4 percent of GDP in 1991, mostly for precautionary motives, declined to 12.9 percent in 1992 and 8.2 percent in 1993. Since public-sector dissavings were growing, overall domestic savings were not sufficient to finance the investment needs of the economy. A twin deficit—of the external current account and the budget—became clearly visible in 1993 (figure 2.3) as the economy was forced to search for resources abroad.

Figure 2.2 ***Subsidies Reduction and Growth of Transfers, 1989-94***



Source: Ministry of Finance.

Figure 2.3 ***Macroeconomic Imbalances, 1989-96***



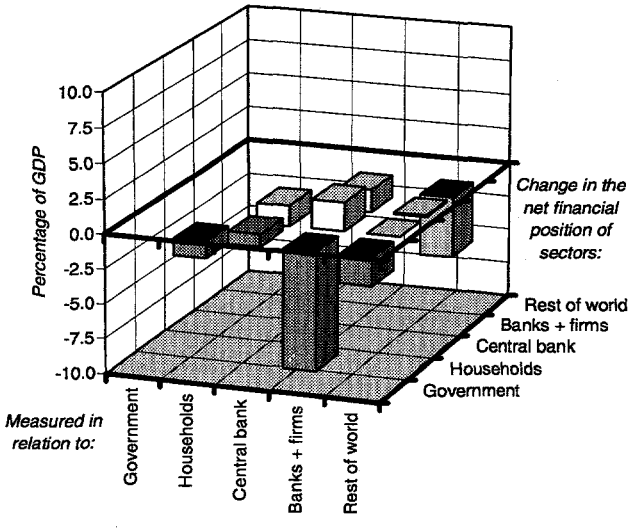
Sources: International Monetary Fund, World Bank.

In 1993-94, financial developments in the government and non-government sectors became closely related in at least three ways. First, domestic banks were lending massively to the public sector because of high public-sector borrowing requirements. Second, the large foreign debt held by the National Bank of Hungary significantly influenced fiscal policy (this is discussed further in chapter 3). Third, bank recapitalization operations significantly increased the public debt without solving in a lasting manner the basic problems faced by the banking sector. That sector, which had inherited a large portfolio of loans to unprofitable enterprises from the socialist period, was weak. The government recapitalized banks on four occasions: in 1991, in May 1993, in December 1993 with a program covering so-called strategic loss-making enterprises including the state railway company, and in 1993-94 with a large program of bank consolidation aimed at progressively increasing the capital adequacy ratio of banks to internationally accepted levels.[3] Urgent action was required because the negative cash flow of banks was creating a serious liquidity crisis and contributed to the maintenance of high interest rates (the spread between deposit and lending rates at the end of 1993 was 9 percent). Twenty-year bonds were issued by the state to raise capital for this operation. However, there were major flaws in the program, including the fact that there were no effective sanctions for banks, which did not comply with the restructuring program agreed to with the

Ministry of Finance. In June 1995, the new government terminated the program.

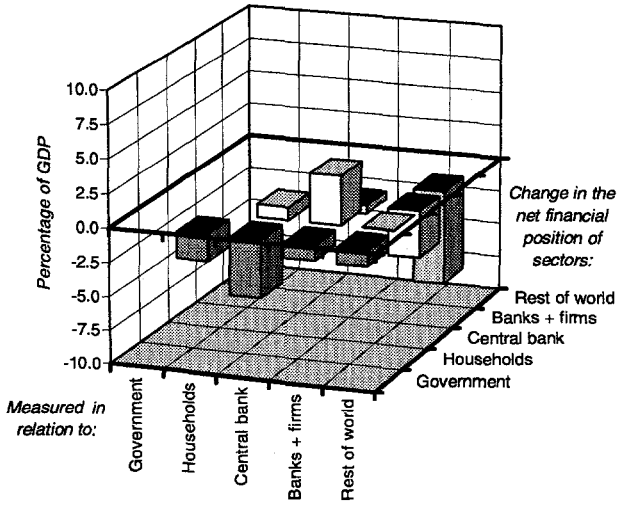
The change in the net financing position of economic sectors resulting from the large financing requirements of the budget is shown in figures 2.4 through 2.6.[4] In 1993, a substantial amount of resources flowed from the business sector to the government (figure 2.4). In a typical case of crowding out, practically all public-sector borrowing requirements were financed by domestic enterprises and banks. Since interest rates were high, banks, facing an uncertain future, were more interested in risk-free lending to the government than financing new investments in the private sector. A few firms were searching for reasonably priced credit and found it in the foreign markets, which explains why the position of the private sector (banks and enterprises combined) relative to the external sector deteriorated as well. In 1994, growth resumed and a different pattern of financing emerged (figure 2.5). As enterprises began to increase their investment, they switched mainly to foreign financing, as they had been crowded out of the domestic market. The government, in turn, finding itself unable to borrow from domestic firms and banks, turned to the central bank and to households, and the twin-deficit situation emerged.

Figure 2.4 ***Change in the Net Financial Position of Sectors, 1993***



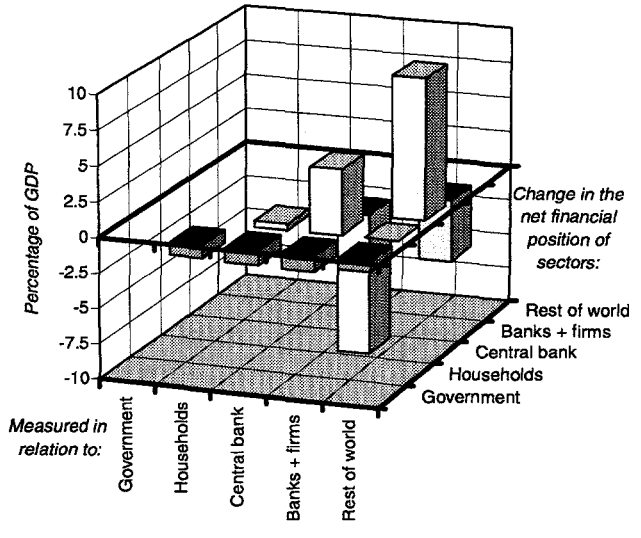
Sources: National Bank of Hungary, Central Statistical Office, Ministry of Finance, and Budapest Stock Exchange.

Figure 2.5 ***Change in the Net Financial Position of Sectors, 1994***



Sources: National Bank of Hungary, Central Statistical Office, Ministry of Finance, and Budapest Stock Exchange.

Figure 2.6 ***Change in the Net Financial Position of Sectors, 1995***



Sources: National Bank of Hungary, Central Statistical Office, Ministry of Finance, and Budapest Stock Exchange.

The mechanism of the twin deficit operated through an appreciation of the real exchange rate supported by large borrowing abroad by the National Bank of Hungary, which borrows externally on behalf of the government (see chapter 3), and the private sector. The current account deteriorated sharply but foreign reserves were still growing. The increase in the fiscal deficit preceded the increase in the current account deficit with a lag of 12 to 24 months, indicating that the roots of the problem were clearly fiscal. In 1994, during the electoral campaign, some economists were still arguing that the current account deterioration was due to a "competitiveness problem" and not to the fiscal deficit. This, however, is clearly disproved by the available data. If there had been less borrowing abroad, the real exchange rate would have appreciated much less, thereby leading to a much slower growth of imports (and probably to a much faster growth of exports) than was actually the case.

The growing budget deficits were combined with a relatively low level of domestic savings and low monetization of the economy. In such situations, even fiscal deficits of 6 to 7 percent of GDP are bound to have a profound impact on the economy. Low monetization implies high inflation risk, low savings implies a high risk of current account deterioration. Between the end of 1990 and the end of 1994, almost 80 percent of the total broad-money increase was due to the growth of net credit to the government. Monetary policy was able to accommodate the effects of the fiscal expansion in a non-inflationary fashion for a few years but, by early 1995, became powerless.

The worsening fiscal situation—which, as analyzed in the other chapters of this volume, resulted to a large extent from structural problems in the public sector—cumulated in a large current account deficit of more than 9 percent of GDP in late 1994. Hungary was on the brink of another financial crisis. This was aggravated by the panic that followed the Mexican crisis on international markets—Hungary started to lose foreign reserves—and by wrong signals sent to the markets by the newly elected government.[5] Nine months after the general elections that brought a socialist-free democrat coalition government to power, the authorities had not yet shown signs of resolve to bring public expenditures under control.

The Prime Minister appointed a new Minister of Finance and a new governor of the National Bank of Hungary, both highly respected by the financial community, in early 1995. On March 12, after an extraordinary Cabinet meeting, the government announced a stabilization program that took the public by surprise. The government also radically changed its

policy on privatization of state-owned enterprises and banking reforms, and a new privatization law was adopted by Parliament in May 1995, two months after the announcement of the economic stabilization program.

Internal and external disequilibria were so large that a targeted GDP growth rate as low as 3 percent would have been unsustainable. The objective of the stabilization program[6] was to "cool down" the economy, promote savings against consumption, and improve the current account. The program was built around the exchange rate, with public sector wages playing a role of the nominal anchor, partly through their demonstration effect. The currency was devalued by 9 percent and the exchange-rate mechanism was changed to a pre-announced crawling-peg policy. In addition, a temporary import surcharge of 8 percent on consumer goods was imposed. The program was "heterodox" in that it relied heavily on an incomes policy. The large decline in real wages observed in 1995-96 was, therefore, not an unintended byproduct of the stabilization program. The fiscal deficit declined by almost 2 percent in 1995 by a combination of revenue-enhancing and expenditure-cutting measures, though with an emphasis on revenue increases. The cutbacks in spending were not particularly significant when measured as a ratio to GDP (except for family allowances), but they were significant from a "psychological" point of view: the program had managed to put major public expenditure areas—including the pension system, universities, and others—on the policy agenda. Details of this are discussed in chapter 5 and in other chapters.

The change in the direction in economic policy—both in terms of stabilization and privatization—yielded very positive results. Most importantly, the program, while avoiding plunging the economy in a deep recession, was successful in creating the conditions for sustainable growth. The features of the program, in particular its reliance on incomes policy, helped to stimulate exports, prevent a deterioration in employment, and avoid an outbreak of uncontrollable inflation. The decline in consumption was expected, and was, indeed, an integral part of the adjustment process. The cost of the adjustment in terms of real wage decline was high, but limited in time. Net real wages dropped by a cumulative 16.5 percent in 1995-96 and private consumption dropped by 10 percent. By 1997, however, both real wages and private consumption began to recover. The success of the program in terms of controlling inflation (after the initial jump in the consumer price index due to the devaluation of the currency) was more limited than envisaged by policymakers: by

the end of 1997, inflation was on a declining path and at one of its lowest levels in the 1990s, yet still reached 18 percent on a 12-month basis.

Output growth slowed in 1995-96 but remained positive, which is remarkable given the size of the external adjustment that was required. In 1997, output growth accelerated to reach an estimated rate of 4.4 percent. This good performance owes much to the structural changes in the economy that had taken place in the first half of the 1990s including, as mentioned earlier, trade liberalization, enterprise and banking reforms, and major reforms in the legal framework (bankruptcy, etc.). These changes allowed the export sector to react promptly to the new environment created by the economic policies.

The external balance improved, mainly because of export growth, leaving some room for modest import growth. The combination of devaluation, crawling peg, and import surcharge was successful in promoting export-led growth, while easing the recessionary impact on the economy. The current account deficit of the balance of payments declined from 9.5 percent of GDP in 1994 to about 2 percent of GDP in 1997, in part because of favorable external conditions,[7] but mainly because of government policies. First, as discussed in chapter 3, there was a sizable decline in net interest payments, which dropped by 1.25 percentage points of GDP between 1995 and 1997, because of a significant fall (from more than 45 percent of GDP to less than 30 percent) in net external debt and because of an active policy of refinancing loans as the risk premium on Hungarian government debt declined sharply. Second, there was also an improvement in the non-interest component of the external current account closely correlated with the improvement in the fiscal balance.[8]

These measures improved the competitiveness of Hungarian exports, as evidenced by a large increase in the dollar value of exports, which outstripped the sharp rise in imports. Improvements in profitability and faster productivity growth in the tradable in relation to the nontradable sector corresponded to a major depreciation of the real exchange rate (measured in terms of unit labor costs) of about 20 percent.[9]

The decline in investment was not unexpected, but its duration was; recovery came only in the second quarter of 1996. Even though the internal financial sources of enterprises improved rapidly in 1995, enterprise managers waited for about a year—given the uncertainty about the success of the stabilization—before launching new investment projects, particularly in domestically oriented activities.[10] Changes in financing patterns induced by the program in 1995 (figure 2.6) show that domestic

enterprises were still borrowing from abroad. The large foreign direct investment inflows improved the position of the National Bank of Hungary dramatically in relation to the external sector, though its position in relation to enterprises and banks deteriorated almost equally because of sterilization needs (as discussed in chapter 3).

After a long and costly period of delayed adjustment, the macroeconomic and structural policies implemented by the authorities have created the basic conditions for sustainable growth as Hungary officially begins negotiations for membership in the European Union. The process of fiscal consolidation and convergence toward the European market economies is far from over, particularly in regard to reducing inflation; however, the basic macroeconomic conditions for stability and growth are in place.

NOTES

1. The external debt increased from $370 per capita in 1975 to $2,050 in 1990, and debt service from 25 percent of exports in 1975 to 63 percent in 1990.

2. The Hungarian Bankruptcy Law of January 1992 is considered a model in Central Europe. However, one of its features (automatically beginning bankruptcy or liquidation procedures when enterprise obligations are overdue by more than 90 days) is considered to have forced into bankruptcy many viable enterprises that only had temporary liquidity problems (Gray, Schlorke, and Szanyi 1996). This feature of the law was abrogated in late 1992.

3. The 1991 program was small (it covered only 2 percent of all outstanding bank loans); the May 1993 program amounted to 2.7 percent of GDP and the December 1993 program to 1.6 percent of GDP. The 1993-94 program amounted to about 4 percent of GDP and was by far the costliest (World Bank 1997).

4. Since neither foreign-exchange losses nor bank-recapitalization costs represent real flows of resources, they are excluded from the data shown in figures 2.4 through 2.6. However, it must be kept in mind that, because of these two items, the public debt grew much faster than if it had only been contracted to finance the budget deficits.

5. In December 1994 the government canceled the sale of HungarHotel to a foreign strategic investor. This contributed to a worsening of Hungary's credit rating, with a sharp increase in the cost of foreign borrowing.

6. The program is discussed in detail in Bokros (1998), Kornai (1997), and Cottarelli and others (1998), which the present discussion follows closely.

7. Imports of Hungarian products by trading partners grew by 7 percent in 1995-97 compared to 4.5 percent during the first half of the 1990s (Cottarelli and others 1998).

8. Cottarelli points out the close correlation between the improvement in the external current account excluding net interest payments and the improvement in the operational fiscal deficit (see Cottarelli and others 1998, p. 13).

9. Measured in terms of consumer price index, however, the real exchange rate gradually regained its end-1994 level in 1997, after an initial depreciation in 1995 (Cottarelli and others 1998).

10. Foreign investment, even excluding participation in privatized companies, remained high throughout the period. Privatization of major public companies translated into inflows of foreign direct investment of almost 10 percent of GDP in 1995 alone.

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3 Fiscal Deficit and Public Debt during the Transition

Gyula Barabás, István Hamecz, and Judit Neményi

One of the fundamental reforms that took place in Hungarian public finances during the transition was the transformation of the deficit-financing regime. Until 1991, budget deficits were automatically financed by central bank loans at preferential interest rates. Three major changes in the financing regime were introduced by the December 1991 Act on the Central Bank: starting in 1992, budget deficits were financed through the market using government securities; second, direct financing of the deficit by the central bank was restricted then—as the deepening of the securities market made this possible—forbidden, and, third, the holding of public debt by economic agents became voluntary.

The shift to a market-based deficit-financing regime turns out to have been a central element leading to the fiscal consolidation process that started in March 1995. Problems had begun to appear in 1993, but policymakers only gradually took the measure of the true costs of government borrowing, as access to cheap financing from the central bank was restricted, then forbidden, making the unsustainability of the public finances more transparent. The true size of the budget deficit was difficult to determine because macroeconomic developments were volatile, inflation was high, and money and capital markets were only emerging.

One of the most serious policy constraints of the transition was the high level of public debt. In this respect, Hungary differs from several other transition economies. In 1989 Hungary's external debt/gross domestic product (GDP) ratio surpassed 65 percent, almost all of which was sovereign debt. The government made the decision to meet its debt-service obligations. This ratio declined to 37.6 percent in 1997. The domestic public debt was not large, but was significantly increased by off-budget liabilities linked to the transition, such as special bonds issued for housing finance and bank restructuring. The Hungarian transition experience is, thus, interesting in showing how economic stabilization was achieved in parallel with reducing and restructuring public debt.

This chapter analyzes how the budget deficit was financed and public debt restructured during the transition. Hungary's transformation started earlier and was more gradual than in other transition economies. Several basic reforms had already taken place when the political changes

in 1990 established a market-based system. While these basic reforms had some impact on the budget, the budget financing system itself remained untouched until 1992. But it is clear that the structural problems of public finances had their roots in the previous regime. Therefore, the period 1986-96 will be analyzed in this chapter.[1]

The chapter begins by describing the conduct of macroeconomic policy and the external and internal constraints it faced during the transition period. Discussed, then, are different measures of the fiscal deficit, first presenting the methodological framework, comparing different measures of the deficit—cash flow versus accrual based, nominal versus real—which is believed to be the appropriate approach in this context. The third section discusses the sources of financing the operational deficit. There were changes in the structure of financing because of inflation, and because the government securities market was in an emerging phase. It was possible to lengthen the average maturity of outstanding government securities only as the credibility of the economic policy strengthened. Then, discussion turns to the determinants of the structure of the public debt showing how the increase in external capital flows and the sterilization policy of the National Bank of Hungary (NBH, or the central bank) resulted in a shift in the structure of the debt. The final section summarizes the resulting findings, distinguishing three different policy regimes during the 1986-96 decade.

CONSTRAINTS ON MACROECONOMIC POLICY DURING THE 1990S

The major changes in basic economic indicators during 1988-97 are presented in table 3.1. Throughout the period, inflation remained high, reaching its peak in mid-1991. The initial increase in the consumer price index (CPI) was the direct effect of major relative price adjustments resulting from trade and price liberalization. But during 1991-96, expectations of future price increases contributed to inertial inflation. The persistence of inflation can also be explained by the effects of exchange rate and monetary policy.

The Exchange-Rate Regime

Between 1990 and 1994, the exchange rate was fixed, but adjusted on an ad-hoc basis. Such an exchange-rate regime, supported by tight monetary policy, is sustainable only if the process of exogenously and endogenously induced relative price changes is completed and if the fiscal stance is sustainable in the long run. Otherwise, there is a real danger of using the unexpected inflation to adjust imbalances.

Table 3.1 *Macroeconomic Indicators* (percentage change unless otherwise indicated)

Indicator	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Real GDP	-0.1	-0.7	-3.5	-11.9	-3.1	-0.6	2.9	1.5	1.3	4.4
Domestic absorption (real)	-2.9	0.9	-3.1	-9.1	-3.6	9.9	2.2	-3.1	0.8	4.2
Measure of money supply (M3) (annual average)	--	--		26.3	36.4	19.9	14.4	15.1	22.8	18.8
Net domestic assets[a]	--	--		14.1	10.9	18.9	20.1	22.3	1.9	9.4
Corporate loans	--	--		21.7	5.9	-3.2	12.1	19.2	12.6	37.5
Current account/GDP	-2.8	-4.9	0.4	0.8	0.9	-9.0	-9.4	-5.4	-3.8	-2.2
Unemployment (percent of labor force)[b]	0.3	0.4	1.0	4.7	10.3	11.9	10.7	10.2	9.9	8.7
Inflation (consumer price index, year-on-year)	15.5	17.0	28.9	35.0	23.0	22.5	18.8	28.2	23.6	18.3
(Consumer price index, end-year)	14.8	18.1	33.4	32.2	21.6	21.1	21.2	28.3	19.8	18.4

-- Not available.

a. Includes the effect of bank restructuring and debtor consolidation after 1993.

b. Annual averages. *Prior to 1993 registered, from 1993 according to the International Labor Organization* definition from the Labor Force Survey.

Source: National Bank of Hungary.

In a small open economy under an adjustable exchange-rate peg such as Hungary's, it was more likely that the monetization of budget deficits would lead to growing external imbalances. Exchange-rate movements (devaluations and cross exchange-rate changes) strongly influenced the debt burden because the largest share of the gross Hungarian sovereign debt was denominated in foreign currencies. High interest charges on the accumulated debt contribute to today's borrowing requirements, and increased borrowing needs can trigger interest rate increases that augment tomorrow's public borrowing. When monetization of the deficit increases,[2] inflationary pressure tends to become stronger—even in the absence of complete information on the relationship between money and price increases.

Fiscal and monetary expansion increased the ratio of domestic absorption over national income and resulted in further current account deterioration and external borrowing. Increasing current account deficits and external indebtedness forced the devaluation of the forint, thus money financing and monetary expansion indirectly increased inflation.

The exchange-rate regime was ultimately changed in March 1995 to a pre-announced crawling peg to assist in restoring the credibility of economic policy. As the rate of the crawl was set according to target inflation during 1995-1996, the exchange rate was thought to play a role of nominal anchor. The adjustment in the budget borrowing requirement and the tight income policy were designed in line with the crawling peg and the upfront devaluation of the Hungarian currency by 9 percent was to increase export profitability. The measures induced the corrections in relative prices and income distribution needed to make the stabilization sustainable, although it could not avoid surprising the public with the sudden jump in inflation.

Monetary aggregates could not be used as intermediate targets because of the instability of money demand and because the relationships between money, inflation, and growth were largely unpredictable.[3] In the absence of a sizeable adjustment in the primary budget, monetary policy proved to be inefficient in curbing inflation. It only became possible to reduce inflation once the government deficit shrank to a size financeable from the market at a reasonable price.

The Debt Burden

The external debt inherited from the previous regime and macroeconomic targets of government policy (external equilibrium, growth, and low inflation) imposed severe constraints on the sources of financing. Quite early on, it was recognized that, as the external debt/GDP ratio approached an unsustainable level and inflation stagnated around 20 percent, external and monetary sources of financing would have to be restricted. As soon as market interest costs had to be paid by the budget, it became evident that fiscal adjustment was necessary to put in reverse the snowballing effect of increasing the Public Sector Borrowing Requirement (PSBR)[4] and increasing interest expenditures. The goal of monetary policy—reducing inflation—could only be achieved if interest rates were at a level sufficient to generate enough domestic private savings to cover the PSBR. At the same time, interest rates could not be so high that they would crowd out the private sector, which would put the economy into prolonged recession. Hence the size of the adjustment in the primary balance of the budget needed to be determined by the financeable deficit consistent with the requirements of a sustainable growth path and the external balance.

In the early 1990s the major task was to cope with the high accumulated external debt and related debt-service obligations. Starting in 1993,

the steadily deteriorating foreign balance worsened the government's external debt constraint. The issuance of marketable government securities to finance the budget deficit, introduced in 1992, aimed at avoiding the inflationary pressure of monetization and at preventing further increases in the foreign-exchange debt. A shortage of domestic savings can make it impossible to avoid adjusting the non-interest government balance to finance the deficit at a reasonable price.

The situation was aggravated by off-budget liabilities, which increased considerably during the transition. Under the centrally planned economy, all public-sector financial flows appeared directly in the central budget and off-central budget debt was negligible.[5] After 1990 the debt of extra-budgetary funds, social security funds, and local governments increased due to their growing independence on financing their excess expenditures. It turned out that their creditworthiness was weak and they could not fully service their debt. Interest expenditures on social security bonds were paid by the central budget. Debt on extra-budgetary funds was guaranteed by the government, and commercial banks were willing to organize syndicated loans for these funds.[6] Local government debt reached a critical level in 1994, leading Parliament to approve limits on their borrowing capacity.

The Deficit-Financing Regime

The regulation of the relationship between the central bank and the budget changed considerably during the transition. Successive amendments of the Act on the Central Bank (see appendix 3.1) aimed at meeting the conditions of a transition economy and being cost-effective as much as approaching regulations conforming with the European Union (EU) standards. During the first phase of the transition (up to March 1995), the limits on budget financing by the central bank often proved ineffective when the budget could bank in budget financing, as the NBH could counterbalance the increase in the liquidity caused by participating in the primary issues through different channels.

Major changes in the system of budget-deficit financing coincided with the establishment of a government securities market. Treasury bills played, as far back as 1989, a marginal role in the financing of the deficit. Financing the deficit by market methods—by issuing government securities—was regulated by the Act on the Central Bank which, among other things, defined maximum limits as a percentage of the budgetary revenues for the increase of central bank debt (including that for open-market operations). Within these limits, the NBH could freely decide its

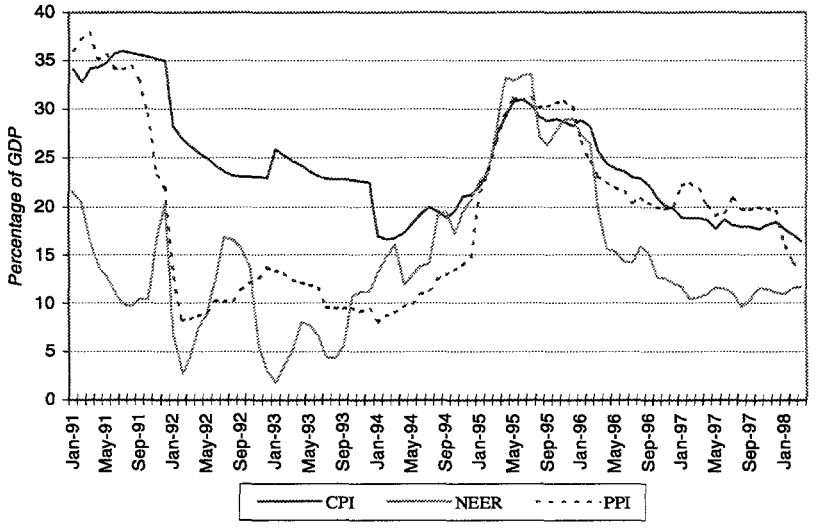
participation in budget financing, taking into account its monetary-policy objectives consistent with economic policy. Financing has been managed by offering central bank credit on market terms, or by buying government securities. Important institutional changes were introduced in the market for government securities in 1996-97 with the creation of the State Debt Management Agency, the introduction of a network of primary dealers, and the development of the secondary market for government securities.

The development of a government securities market and the macroeconomic targets were taken into account when new regulations defined a transition period before central bank participation in direct deficit financing ceased. The "unpleasant monetarist arithmetic" theory (Sargent and Wallace 1981) called for attention to the need to coordinate between monetary and fiscal policy, as under the circumstances of emerging markets debt financing of the deficit could in the long run be more inflationary than money financing. However, coordination between the two authorities—the Ministry of Finance and the NBH—failed several times when problems occurred in financing. The extent of monetization versus debt finance is examined in the third section of this chapter using the operational deficit approach.

The increasing costs of the outstanding debt—appearing directly in the budget in the new regime of budget financing since 1992—made it evident that the debt/GDP ratio was on an explosive path. Considering that the seigniorage-corrected primary balance had not turned to a surplus, the explosion in debt/GDP ratio could not have been avoided. In March 1995 major adjustment measures were launched to introduce fiscal discipline and re-establish equilibrium.

Fiscal discipline played a crucial role in the disinflation process, as the shift to market-based financing has increased the vulnerability of the budget. A lack of confidence in economic policy and imperfections in the emerging government securities market limited choice in the conditions of instruments. The high share of floating-rate debt has made the budget sensitive to inflation, while the higher borrowing need increased the demand for central bank finance, which could fuel inflation and endanger the external equilibrium. Once the most important one-time relative price adjustments linked to the transition to a market economy were completed, a further decrease in the budget-borrowing-requirement/GDP ratio became a major precondition for lowering inflation and achieving price stability.

Figure 3.1 ***Consumer Price Index (CPI), Producer Price Index (PPI), and Nominal Effective Exchange Rate (NEER)***



Source: National Bank of Hungary.

A tight monetary policy is, in this respect, a useful ingredient in disinflation—but without fiscal discipline it is inefficient in curbing inflation. It proved to be inefficient in promoting domestic savings by increasing interest rates when deteriorating fundamentals destroyed public confidence and made forint investments too risky. The room for maneuver in interest-rate policy has been constrained by the quasi-fixed exchange regime of the pre-announced crawling peg. The exchange rate was used as a nominal anchor before the introduction of the crawling band as well, but this role became increasingly difficult to fulfill in a world of growing internal and external imbalances. The real effective exchange rate remained practically unchanged in terms of the producer price index (PPI). However, the gap between the CPI and the PPI was at some point in the 1990s larger than 10 percentage points (figure 3.1) and real appreciation in terms of CPI generated regular devaluation expectations. An "artificial" disinflation process was attempted in 1993-94 (by fixing, for example, energy prices or exchange rates before restructuring was completed) but it eventually became unsustainable. High (increasing) real interest rates and a real appreciation policy with devaluation expectations also provided a good opportunity for arbitrageurs. While the pre-announced crawl introduced in March 1995 was efficient in regain-

ing credibility, the sterilization policy (see the fourth section of this chapter) generated additional costs in the budget, and the crawling-peg exchange regime may contribute to the inertia of inflation in the future.

MEASURING THE CONSOLIDATED DEFICIT AND CONSOLIDATED DEBT

Fiscal policy cannot be analyzed with conventional data because of two characteristics of the public finance system during the transition that have already been alluded to. First, by 1990, the government had accumulated a large foreign-exchange debt though, technically, it was the NBH that borrowed abroad in its own name. Second, as noted by Tanzi (1992), in all transition countries, the actual deficit of the public sector may differ significantly from figures reported in official budgets because of non-deficit related changes in assets or liabilities. In Hungary, these are generated by off-budget government obligations and privatization revenues, which provided a significant additional source of finance ($6.2 billion during 1991-96). In this presentation of Hungarian fiscal accounts, the accounts of the general government and of the central bank are, therefore, consolidated, and both the non-deficit and deficit-related parts of the government debt added together.[7]

The changes in the consolidated deficit of the general government and the public debt will now be described. The accounts of the different fiscal subsystems—central budget, extra-budgetary funds, social security funds and local governments, excluding state-owned enterprises—are consolidated following the International Monetary Fund Government Finance Statistics (GFS) and the resulting balances between revenues and expenditures are presented as ratios to GDP. The public debt is calculated by netting out the financing flows between the budget and the central bank. The resulting consolidated public debt includes both the Hungarian forint-denominated debt outside the central bank and the foreign-exchange-denominated debt (the major part of which is held by the NBH). (See appendix 3.2.)

Nominal Deficits on a Cash-Flow and Accrual Basis

The resulting calculations are shown in tables 3.2 and 3.3. Table 3.2 shows the fiscal deficit in nominal terms, measured on a cash basis, and its components. Conventionally, fiscal deficits are defined on a cash basis; that is, as the difference between total cash expenditures, including interest expenditures, but excluding amortization payments on the outstanding debt, and total cash receipts, including tax and non-tax revenues, but excluding borrowing proceeds. However, it is advisable to use

Table 3.2 ***Components of the General Government Cash-Flow Balance*** **(percentage of GDP)**

Indicator	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*[a]
Central government balance	0.6	-3.6	-6.8	-5.1	-6.4	-5.5	-2.0	-4.0
of which:								
Primary balance	4.6	-0.6	-1.6	-1.2	-0.4	2.9	5.3	4.1
Interest balance	-5.1	-3.3	-5.0	-4.2	-6.5	-8.4	-6.5	-7.9
NBH profit (+) or loss (-)	1.1	0.4	-0.2	0.3	0.5	0.0	-0.8	-0.3
Extra-budgetary funds balance	0.1	0.4	0.1	0.4	0.0	-0.2	-0.1	0.1
Social security funds balance	0.0	-0.6	-0.6	-1.0	-0.8	-0.7	-1.0	-0.6
Local governments balance	-0.4	0.8	0.3	-0.8	-1.3	-0.3	0.0	-0.3
General government balance	0.3	-3.0	-7.0	-6.5	-8.4	-6.7	-3.1	-4.8
of which:								
Primary balance	4.3	1.0	-2.6	-2.9	-2.7	1.6	4.3	3.1

a. Preliminary figures.
Source: National Bank of Hungary.

inflation-corrected balances when evaluating the fiscal stance in economies experiencing high inflation (Tanzi, Blejer, and Tejeiro 1993).

Since foreign-exchange losses are not counted as part of the deficit in the conventional definition, the restructuring that took place between domestic and foreign currency-denominated debt (see the third section in this chapter) did not affect the cash-flow deficit figures.

Table 3.3 reports the nominal deficit on a cash flow and on an accrual basis, the primary deficit, the operational (real) deficit, and the change in gross debt as percentages of GDP. As indicated by the table, the cash- and accrual-basis indicators of the budget balances differ significantly in Hungary.

Table 3.3 ***Indicators of General Government Balances*** **(percentage of GDP)**

Indicator	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Cash-flow balance	0.3	-3.0	-7.0	-6.5	-8.4	-6.7	-3.1	-4.8
Accrual-basis balance	0.3	-3.0	-7.0	-7.7	-9.6	-7.3	-4.6	-4.7
Primary balance	4.3	1.0	-2.6	-2.9	-2.7	1.6	4.3	3.1
Operational balance	-4.7	-3.7	-5.5	-5.1	-5.5	-2.1	+0.6	-0.4
Change in general government gross debt	-5.1	8.7	4.0	11.3	-2.1	-2.0	-12.9	-8.3

Source: National Bank of Hungary.

The divergence between the cash flow and the accrual figures basically can be explained by the frequency of interest payments applied to government debt and, in case of short-term debt, by the maturity and timing of issues. The difference between the cash flow and accrual deficits reflects the fact that the size of interest payments accounted for in the official deficits strongly depended on the possibility of postponing cash-flow interest expenditures by issuing government bonds with annual interest payments. In 1993 and 1996 the restructuring of the cash-flow interest payments—and in 1995 accelerating inflation—were responsible for the gap between cash-flow and accrual deficit figures.

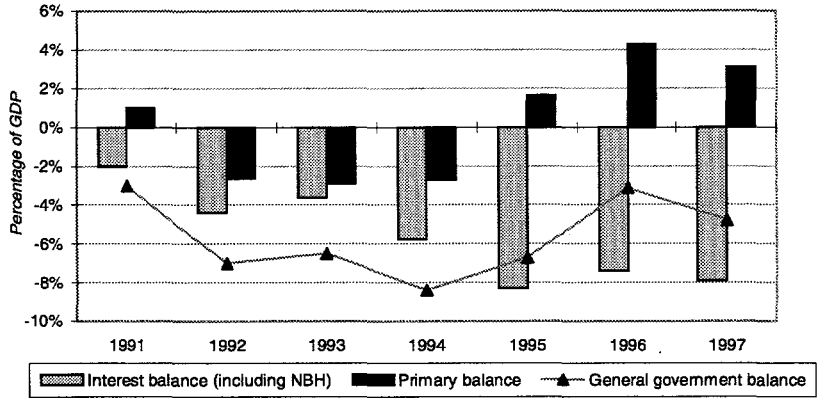
Actual public-sector deficits were higher than reported in the cash-flow balance figures because of off-budget liabilities; that is, bonds issued for the housing finance reform, bank restructuring bonds, and guarantees. The latter off-budget liabilities, though they did not have an immediate macroeconomic impact, contributed significantly to the increase in the public debt/GDP ratio and borrowing requirements in later years. A rough estimate of the true fiscal position of the government is provided by the change in government debt/GDP. The difference between the change in this ratio and the cash-flow deficit between 1992 and 1993 was almost 10 percentage points, which is an indication of the magnitude of off-budget obligations during the transition. The non-deficit-financing debt of the general government increased by 4.6 percentage points to 25 percent of GDP in 1993 and played an important part in the intensification of the debt burden—as reflected by the fact that the gross debt/GDP ratio steadily increased until peaking at 87.3 percent in 1995.

The deterioration in the government's fiscal position became manifest in 1992 as the interest payments/GDP ratio measured on a cash basis increased—this ratio was already higher and increasing on an accrual basis—which made it mandatory to achieve, sooner or later, a significant surplus in the primary balance.

The cash-flow deficit is an indicator of the *net* financing needs of the government. Its two components, primary balance and interest payments, are shown in figure 3.2. However, because of the distortions in interest payments in times of volatile inflation, this does not present a good picture of the true demand and income effect of economic policy. For this, changes in real variables and the operational deficit, defined in equation 3.4 (see appendix 3.2), have to be examined.

The conventional cash-flow deficit measure is a poor indicator of the true fiscal stance in the inflationary context of Hungary. The volatility

Figure 3.2 ***General Government Borrowing Requirement*** **(cash-flow basis)**



Source: National Bank of Hungary.

of the cash-flow-based figures reflects more the debt managers' room for maneuver than an underlying process of fiscal adjustment in the public sector. The deficit on an accrual basis gives a better picture of the adjustment, although it reflects the sizable impact of domestic inflation on the interest balance.

Nominal and real (operational) deficits are, in a way, two extremes. Net financing is less costly if investors are willing to reinvest the inflation-compensating parts of interest incomes as measured by the operational deficit. However, during periods when the credibility of economic policy was weak, the operational deficit underestimates government-borrowing needs, as household propensity to save declines and interest paid on government securities is treated as income rather than compensation for the inflationary erosion of outstanding debt. Credibility is weak if economic agents do not believe the government's announced policy. The leading causes of low credibility have been the deteriorating external and internal balances, inflation, and the underlying failure of the government to operate fiscal adjustment. The large fiscal deficit inspired fears that eventually the government would need to resort to inflationary seigniorage. Since government can decrease the budget deficit by generating surprise inflation—usually by devaluing the forint—devaluation expectations gained strength periodically, making the exchange-rate peg non-credible. (Fiscal adjustment is defined here with reference to the primary balance as an increase in the ratio of government revenue to

GDP, or a reduction in the ratio of non-interest government expenditures to GDP.)

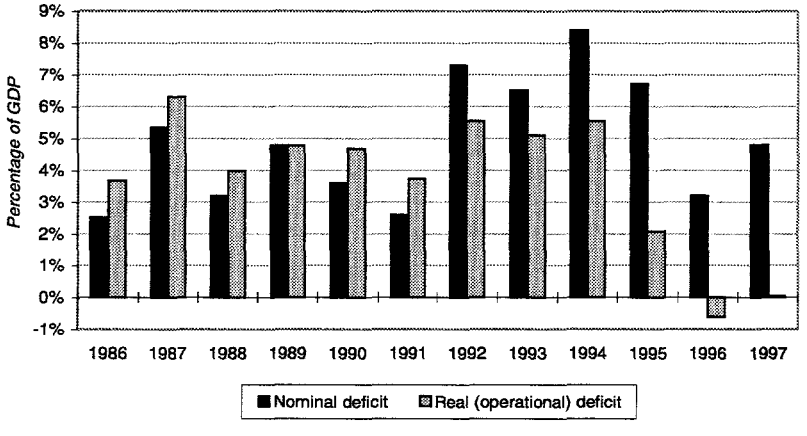
Nominal and Real (Operational) Deficits

Since annual inflation in Hungary has been above 15 percent since 1990, the changes in the government's fiscal position are best evaluated by examining the real deficit over time—which requires eliminating the inflation compensation component (the fact that investors have to be compensated for the effects of inflation) from interest payments and revenues.[8]

Figure 3.3 presents the government deficit on a nominal and real basis during 1986-96. It is clear that, until 1992—the year of the change in the financing regime—real deficits were always larger than nominal (cash-flow) deficits. Theoretically, this cannot happen, as real interest payments are defined as nominal interest payments minus inflation compensation. In Hungary, however, the consolidated government (general government + central bank) had been a net lender to the domestic sector until 1992, and the central bank lent to the corporate sector at preferential, below-market interest rates. These hidden transfers to the corporate sector increased net real interest payments compared to net nominal ones and resulted in a real deficit, which exceeded the nominal deficit.

Since the inflation compensation component on the Hungarian currency-denominated (HUF-denominated) debt equals domestic inflation, while that on foreign currency-denominated debt equals foreign inflation,

Figure 3.3 ***Nominal and Real Deficit of the General Government, 1986-97***



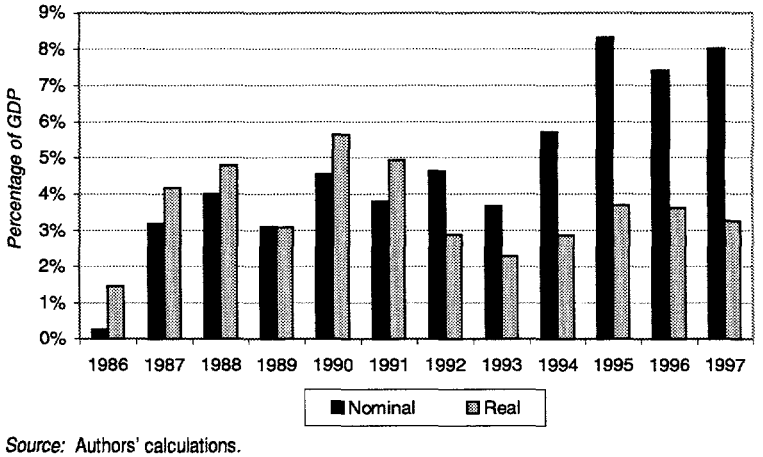
Source: Authors' calculations.

there is a considerably higher spread between nominal and real interest payments for HUF-denominated debt. Figure 3.4 shows the evolution of the government's net nominal and real interest payments. Nominal annual average interest payments were 2 percent of GDP during 1986-90, then 5.1 percent during 1991-96. By contrast, if one looks at interest charges in real terms, there is no practical difference between the two subperiods, with real annual average interest payments amounting to 3.7 percent of GDP during 1986-90 and 3.6 percent during 1991-96.

Interest payments in real terms as a percentage of GDP did not increase in the same proportion as net debt.[9] The substantial increase in net consolidated debt of over 40 percent after 1991 was not accompanied by a similar increase in real interest payments because the actual composition of the net debt was restructured profoundly.

From what has been said so far, it can be concluded that during 1986-91, the fiscal position was actually worse than was indicated by the cash-flow deficit figures—the "headline" deficit figures reported to the public—for three main reasons: interest expenditures on the public debt (paid to the central bank) were lower than market interest rates, the budget did not have to carry the full burden of the external debt owed by the central bank, and the domestic corporate sector had been subsidized through central bank lending at below-market interest rates. All this helped postpone fiscal adjustment and contributed to the deterioration of public finances.

Figure 3.4 ***Nominal and Real Interest Expenditures***

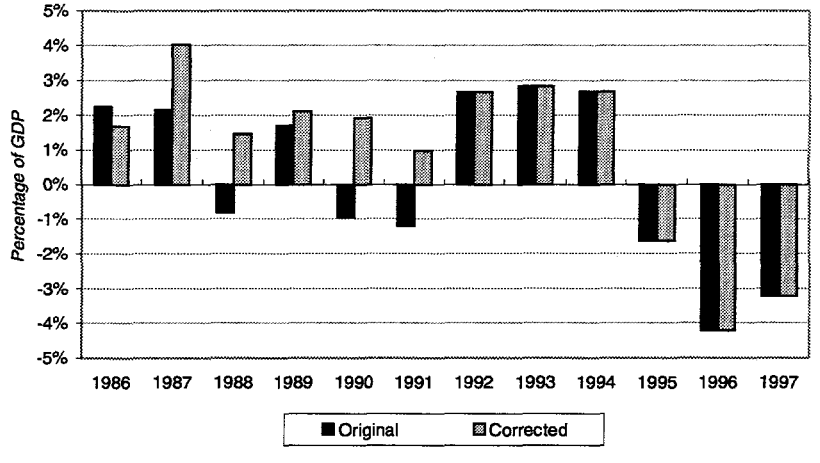


Source: Authors' calculations.

To obtain a more accurate measure of the primary deficit in situations where the operational deficit is higher than the nominal deficit, and where real interest rates are negative—as was the case in Hungary in 1988-91—Tanzi, Blejer, and Tejeiro (1993) suggest computing a "corrected deficit." This correction is obtained by reducing interest payments to an amount equivalent to the trend of real interest rates calculated on the outstanding debt. In calculating the corrected deficit, it can be assumed that the implicit real interest rate on the net debt was the same prior to 1991 as during transition periods. The results, shown in figure 3.5, lead to the conclusion that primary deficits were higher than reported in the early transition period, and that the reported surpluses of 1988 and 1990-91 would become deficits if these assumptions could be verified.

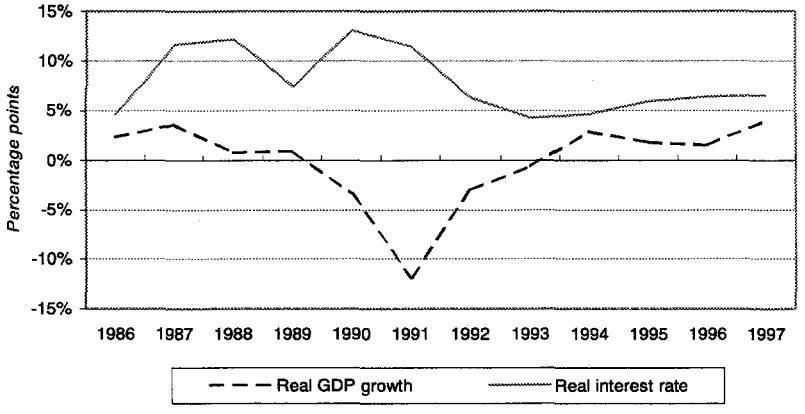
The changes in the operational deficit show that government debt was clearly on an unsustainable path until 1995. This is supported by the observation that there was a gap between the implicit real interest rate on the debt and the real growth rate of the economy (figure 3.6), requiring the generation of primary surpluses. However, this was rarely the case before 1995, and no significant change took place in the size and structure of the primary balance until the marginal cost of borrowing increased to a critical level—reflecting the fact that the general government financial position was unsustainable.

Figure 3.5 ***Original and Corrected Primary Deficits***



Source: Authors' calculations.

Figure 3.6 ***Real Growth and Implicit Interest Rate on Net Public Debt***



Source: National Bank of Hungary.

Using the budget constraint equation 3.1 in appendix 3.2 and dividing by the GDP (Y), the change in debt-to-GDP ratio, ΔD/Y, can be written as follows:

$$\Delta(D_t/Y_t) = pb - s + D_{t-1}/Y_{t-1}(r_t - g_t)/(1+g_t).$$

The debt-to-GDP ratio will be on an unsustainable path if the real interest rate r is higher than real growth (g) and if this effect cannot be counterbalanced by fiscal adjustment in the primary balance *(pb=PB/Y)* corrected by the seigniorage of the central bank *(s=ΔH/Y)*. As seen in figure 3.5, there was a large gap between the real growth rate and the real interest rate (computed according to the inflationary compensation assumption) on the net debt. At first glance, the real interest rate, prior to 1992, seems "too high" by about 10 percent, even taking into account the interest payments on the external debt. There are two reasons for this gap. First, the primary deficit for the pre-transition period was underreported so that real interest payments, derived as the difference between the operational deficit and the primary deficit, were overestimated. This underreporting definitely played a role given the lack of transparency in fiscal reporting during that period. Second, before 1992, the general government extended large HUF (Hungarian currency) credits to the private sector and was a net lender in HUF to the private sector at below-market interest rates. Thus the divergence between real growth and real interest rates can be attributed to lack of transparency in fiscal reporting and hid-

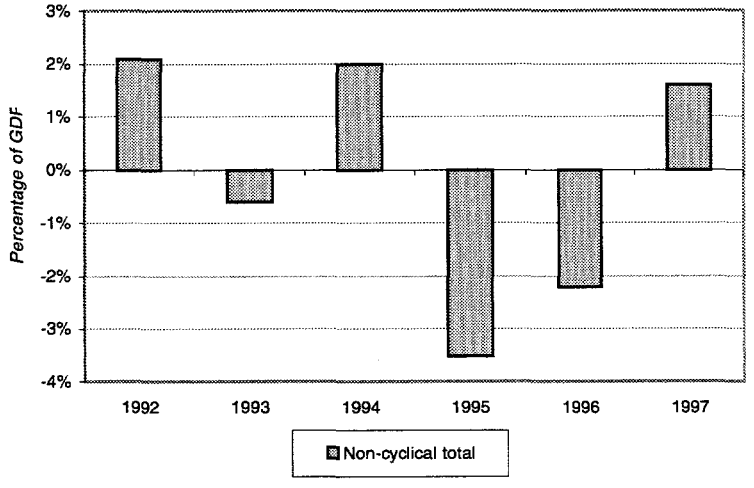
den transfers to the private sector. This is the reason why the corrected budget-deficit figures were calculated previously for the before-1992 period.

Notwithstanding this correction, it should be noted that, from the point of view of the sustainability of the general debt in the past, it does not matter which factor was dominant, as there is no reallocation of data that can produce a combination of primary deficits, real interest rates, and real growth rates that is sustainable.

The implicit real interest rate on the net debt has stabilized at around 6.5 percent since 1992. It is important to emphasize that this does not represent the real marginal cost of borrowing for the government because it also includes the opportunity cost of holding foreign-exchange reserves. The marginal cost can be estimated by assuming that the wedge between the government's foreign-exchange lending and deposit rates is equal to that prevailing in 1995-96. This estimate yields a marginal cost of 5 to 6 percent in real terms.

It is tempting to infer from the analysis of deficits that fiscal policy became looser as the transition process progressed. Taking into account that GDP fell by almost 20 percent during 1989-92, government revenues and expenditures were very sensitive to the business cycle. The claim can be made that, during 1991-94, the exogenous (that is, cycle-related) part of fiscal expenditures was at least as responsible for the deterioration of the fiscal stance as high real interest rates and the recession induced by several real shocks. Non-interest revenues and expenditures of the general government were adjusted to take this effect into account. Every year, potential current revenues are assumed to be related to the previous year's current revenue/GDP ratio and the GDP growth rate. For non-interest expenditures, the previous year's non-interest expenditure/GDP ratio adjusted to the potential growth rate of the economy is used. Calculations assume that, after the 1991 big bang, the growth rate of potential GDP was still slightly negative because of the fall in both effective labor and the net capital stock. It is further assumed that after the 1995 stabilization package, the potential growth rate of the economy gradually accelerated to 3 to 3.5 percent. This is a variation of the "Dutch method" of cyclical adjustment (Chand 1993).[10] Figure 3.7 shows the results of this simple ad-hoc model. Given the crude nature of the estimation, it is preferable to look at trends in the non-cyclical component, rather than at actual levels. The primary deficit deviated from its trend for non-cyclical reasons until 1995, most strikingly in 1994. As a result of the adjustment policy initiated in 1995, the primary deficits in 1995

Figure 3.7 ***Non-Cyclical Component of the Primary Deficits*** **(percentage of GDP)**



Source: Authors' calculations.

and 1996 were below their cyclical levels. A loosening of fiscal policy is evident for 1997.

THE SOURCES OF FINANCING OF THE CONSOLIDATED GENERAL GOVERNMENT DEFICIT

Table 3.4 shows the financing sources of the operational deficit of the consolidated general government: net seigniorage, changes in net credit to the economy by the NBH, changes in the stock of domestic deficit-financing debt, changes in the net foreign-currency liabilities (without revaluation gains/losses), and privatization revenues.

Since examining these financing items separately may give a distorted picture of the interrelated economic processes underlying them, financing flows were reclassified into three broad categories:

- *Net seigniorage*. Monetary seigniorage corrected by the interest paid on mandatory reserves by the central bank.
- *Market-domestic currency financing*. The domestic currency financing defined above minus changes in net credit to the economy by the NBH.
- *Foreign-currency financing*. Changes in net foreign-currency financing minus privatization revenues.

Table 3.4 ***Operational Deficit and Its Financing*** **(percentage of GDP)**

Variable	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
1. Operational deficit (2 + 3 + 4)	3.7	6.3	4.0	4.8	4.7	3.7	5.5	5.1	5.5	2.1	-0.6	0.1
2. Net seigniorage (2a – 2b)	0.8	2.0	1.5	3.1	0.3	4.5	2.7	0.0	-0.5	1.3	1.4	1.0
2a. Gross seigniorage	1.1	2.3	1.7	3.3	0.6	5.8	3.5	0.2	0.0	2.0	2.1	1.6
2b. Interest payments on mandatory reserves	0.2	0.3	0.2	0.2	0.3	1.3	0.8	0.2	0.5	0.7	0.7	0.6
3. Forint-denominated financing (3a – 3b + 3c)	-0.7	1.4	0.1	0.6	1.3	1.8	7.3	1.1	3.0	2.0	4.4	5.1
3a. Government debt outside the central bank	0.1	0.0	0.3	0.9	-0.1	0.8	3.4	3.7	1.2	0.6	2.6	0.4
3b. Central bank financing	0.8	-1.4	0.3	0.3	-1.4	-2.0	-4.9	-0.3	-1.5	-2.3	-2.5	-3.7
3c. Privatization revenues (HUF)[a]	0.0	0.0	0.0	0.0	0.0	-0.9	-1.0	-3.0	-0.3	-0.8	-0.7	1.0
4. Foreign currency denominated financing (4a + 4b)	3.5	2.8	2.4	1.1	3.0	-2.6	-4.5	4.0	3.1	-1.2	-6.4	-6.1
4a. Net foreign-exchange liabilities	3.5	2.8	2.4	1.1	3.0	-3.6	-5.9	0.6	2.6	-8.6	-7.8	-7.7
4b. Privatization revenues (foreign exchange)	0.0	0.0	0.0	0.0	0.0	1.0	1.4	3.4	0.5	7.4	1.4	1.6

a. Privatization revenues (HUF) defined as the difference of the total privatization revenues of the government minus the foreign-exchange privatization revenues. Because not all privatization receipts were transferred to the government, this item can be negative. The rationale for this distinction is that all foreign-exchange privatization revenues were converted to HUF, so it contributed to the increase of the net foreign assets of the NBH, so this classification can give a less-distorted picture of the actual sources of financing.

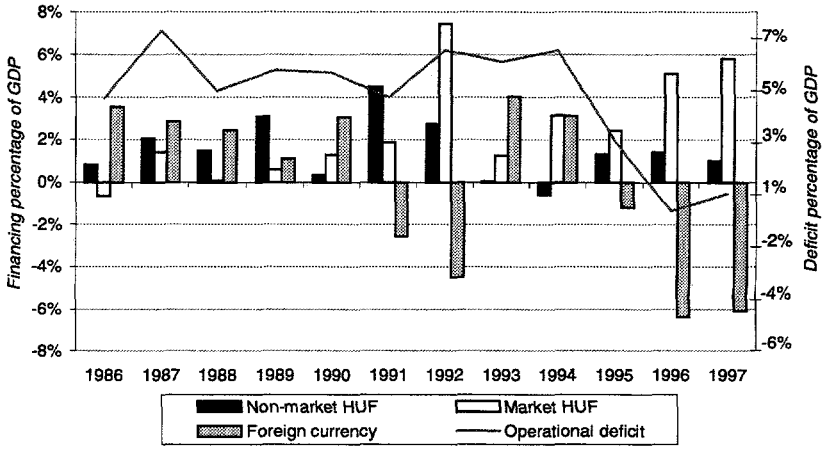
Source: Authors' calculations.

The rationale for this reclassification is that, since the operations of the NBH also covered quasi-fiscal central bank activities, monetary seigniorage in Hungary differs significantly from the government's revenue from money creation. Thus it is relevant to present seigniorage as a source-and-use approach (Klein and Neumann 1990). Only interest payments on mandatory reserves—the non-negligible costs of the monetary base—were taken into account when computing net seigniorage.

The results are shown in table 3.4 and figure 3.8. Since privatization revenues were used to retire net foreign-currency debt, the adjusted foreign-exchange financing—defined as the difference between foreign-exchange finance and the foreign-currency part of privatization revenues—shows the endogenous part of the increase in external sources. The same logic applies to the domestic part, where it can be assumed that banks reacted to the changes in interest rates set by the NBH by reallocating their loans and free reserves at the central bank.

The data in table 3.4 describe the main changes in deficit financing that took place over the last decade. In the second half of the 1980s, foreign-currency financing dominated and HUF-denominated market finance was negligible (as the government provided cheap finance to the state-owned sector with the intermediation of the central bank). The foreign-debt position deteriorated in the early 1990s. The state refrained from further borrowing abroad in 1991-92, but the growing "twin-deficit" problem led to a new wave of external debt in 1993-94. In 1995, as a result of the adjustment program, general government-borrowing needs were cut significantly and could be covered from domestic sources. Net seigniorage—in percent of GDP—was fairly volatile during 1986-96, with a maximum value of 4.9 percent in 1991 and a minimum of -0.8 percent in 1994. There was no permanent increase nor decrease in the level of gross seigniorage during 1986-96, and only slight reductions in the average net seigniorage with two distinguishable subperiods (1986-91 and 1992-96). Before the introduction of the new regime in general government financing, seigniorage revenues fluctuated between 0.3 and 3 percent of GDP, peaking in 1991 at 4.9 percent when inflation reached its high. Since 1992, seigniorage has not played a more important role in Hungary than in developed market economies. After 1992, the government could not rely heavily on money creation as a source of finance, as a new arsenal of savings instruments (government and corporate securities, pension and investment funds, etc.) developed and an increasingly larger part of domestic savings went directly to the budget or the corporate sector. Surprisingly, in the years of financial crises, both

Figure 3.8 ***Operational Deficit and Its Financing***



Source: Authors' calculations.

gross and net seigniorage declined considerably, though the central bank could not avoid participating in the direct financing of the budget.

Table 3.5 and figure 3.8 report domestic and foreign *currency* financing rather than the conventional domestic versus foreign financing. The difference between the two is the foreign-currency financing by residents. There were marked changes in domestic versus foreign-currency financing during the period. Estimates show that, for the 10-year period as a whole, there was no foreign-currency financing, indeed net foreign-currency-dominated debt declined by more than 20 percent of GDP. However, the size of the foreign-exchange-denominated debt in 1994 exceeded the 1985 level by some 10 percent of GDP, indicating changes in the structure of deficit financing. The shift from foreign to domestic sources was particularly strong during 1995-97, with the foreign-exchange-denominated debt dropping by an annual average of more than 10 percent of GDP. Domestic financing during the pre-transition period was dominated by passive forms of financing, such as a credit crunch to the private sector by the NBH. Active or totally voluntary financing was minimal—at about 20 percent of all domestic currency financing—in this period. The transition, however, witnessed a marked increase in the active or voluntary forms of domestic financing—to about 45 percent of domestic currency financing—and, as a consequence, the NBH's direct influence diminished over time.

Table 3.5 ***Components of Seigniorage*** **(percentage of GDP)**

Component	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
1. Gross seigniorage (1a + 1b)	1.1	2.3	1.7	3.3	0.6	5.8	3.5	0.2	0.0	2.0	2.1	1.6
1a. Change in real monetary base	0.0	0.2	-0.9	0.3	-4.2	1.1	-0.1	-3.0	-2.7	-0.9	0.0	-0.3
1b. Inflation tax	1.1	2.1	2.6	3.0	4.8	4.7	3.6	3.2	2.7	2.9	2.1	1.9
2. Interest paid on mandatory reserves	0.2	0.2	0.2	0.2	0.2	1.3	0.8	0.2	0.5	0.7	0.7	0.6
Net seigniorage (1 – 2)	0.8	2.0	1.5	3.1	0.3	4.5	2.7	0.0	-0.5	1.3	1.4	1.0

Source: Authors' calculations.

CHANGES IN THE STRUCTURE OF THE CONSOLIDATED PUBLIC DEBT

Real interest rates have been above the real GDP growth rates for the whole period, pushing the debt/GDP ratio up until it peaked in 1995 at 85.0 percent. Until 1995 this was not counterbalanced by an adjustment in primary deficits. Moderate inflation provided 1 to 3 percent in additional finance (inflation tax) to the government. However, money demand always declined when inflationary pressure increased, which resulted in a decrease in the seigniorage tax base. The high mandatory reserve ratio needed some compensation and near-market interest rates were paid on required reserves. As a result, the primary balance corrected by the seigniorage could not alleviate the increasing debt burden until the fiscal adjustment of 1995. Increasing real interest on Treasuries led to an increasing PSBR that required either higher monetization or higher prices on the debt, so that the "snowball effect" accelerated during 1993-94. The steadily increasing interest rate did not convince investors to buy forint-denominated assets until there was a perceptible devaluation of the forint.

As the twin deficit worsened in 1993-94, it became impossible to significantly reduce the foreign-exchange-denominated part of the debt and therefore, the debt/GDP ratio. The credibility of economic policy improved in March 1995.

Revenues from the privatization of state-owned enterprises were spent as current expenditures during 1990-94, so they did not reduce the debt/GDP ratio. In 1995-96 these revenues were spent on retiring debt (more than $3 billion). In 1995 it became possible to finance the budget deficits from the market. As a result, as shown in table 3.6, the share of HUF-denominated public debt amounted to more than 27 percent of GDP in 1997, while the share of foreign-exchange-denominated debt declined significantly from 60.8 percent in 1995 to 38 percent of GDP in 1997.

Table 3.6 *Consolidated Public Debt* (percentage of GDP)

Variable	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*[a]
1. Gross-consolidated public debt (1a + 1b)[b]	60.1	67.2	65.0	83.8	83.2	85.0	72.4	65.1
1a. HUF-denominated	3.4	5.3	11.9	23.5	24.2	26.5	27.1	26.7
1b. Foreign-exchange denominated	56.8	61.9	53.2	60.2	59.0	60.8	45.9	38.0
2. Foreign-exchange deposits of residents at the NBH	11.1	11.8	9.6	11.2	12.7	13.3	8.5	3.8
3. International reserves at the NBH	8.7	16.9	15.7	21.9	20.2	32.2	25.8	23.4
Net consolidated debt (1 + 2 – 3)	62.6	62.1	58.9	73.2	75.7	66.1	55.1	45.5
Memorandum items								
Gross debt of the general government	67.4	75.0	79.0	90.3	88.2	86.2	73.3	65.1
Central budget liabilities with the NBH	62.2	64.9	62.6	61.1	58.7	56.2	42.5	34.1
Gross foreign-exchange debt at the NBH	55.0	57.1	48.6	54.5	53.6	55.0	41.6	34.0

Note: Computed by netting out the financing flows between the budget and the NBH.

a. Preliminary figures.

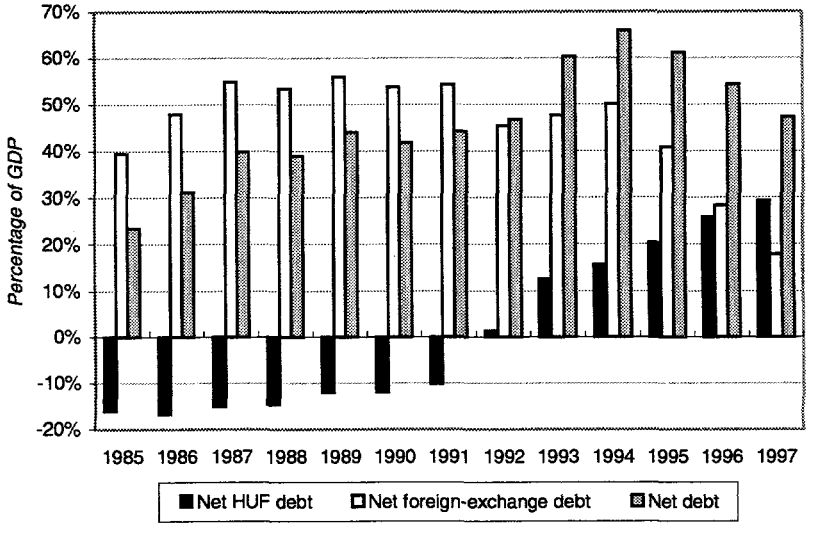
b. If the stock of sterilization instruments and foreign-exchange deposits of residents at the NBH had been included, gross-consolidated debt figures would have been higher (see Barabás, Hamecz, and Neményi [1998]).

Source: National Bank of Hungary.

An interesting aspect of this evolution is that the denomination (figure 3.9) and domestic/foreign residential structure (figure 3.10) of the public debt has changed considerably, which significantly influenced the difference between real and nominal government interest payments, and the spread between real and nominal deficits. Until 1991, net foreign-currency debt exceeded net debt and the consolidated government was a net creditor in HUF. During 1986-1990, the government extended net credit to the private sector of about 13 percent of GDP. Until 1989 the general government deficit was wholly financed from abroad; the pro portion of domestic debt started to increase in 1990 and rose to 70 percent of total net debt by end-1997.

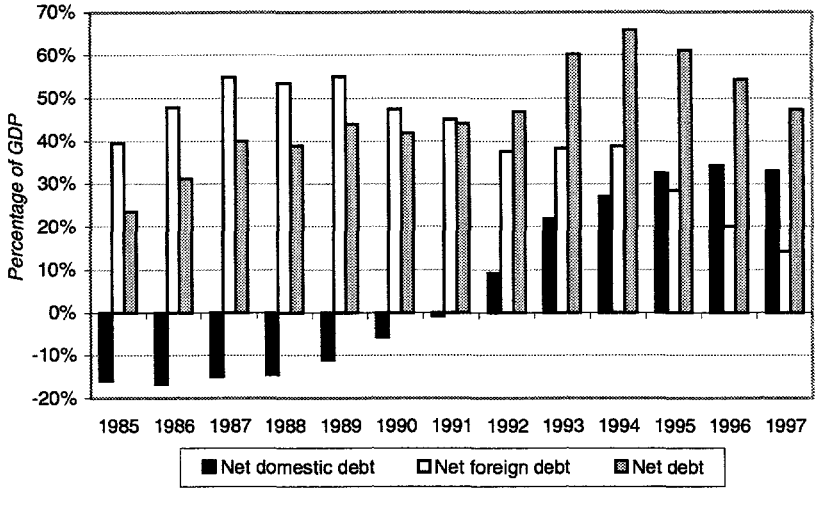
After 1995 the denomination and residential structure of the public debt were influenced by three factors discussed earlier. First, the development of government securities markets accelerated: they have deepened and become more liquid. Second, PSBRs have been significantly reduced by the 1995-96 adjustment measures. Finally, capital flow reversed as the outflow before 1995 returned strengthened by the liberalization of capital-account transactions and the introduction of forint convertibility. These factors changed the public-debt structure. Average

Figure 3.9 ***Net Consolidated Public Debt and Its Hungarian-Currency and Foreign-Currency Components***



Source: National Bank of Hungary.

Figure 3.10 ***Net Consolidated Public Debt and Its Domestic and Foreign Components***



Source: National Bank of Hungary.

maturity increased, and in mid-1997, Hungary had a yield curve with a seven-year time horizon. The restored credibility of economic policy and the crawling-peg exchange-rate regime made forint investments more attractive for resident and non-resident investors. These developments—especially in capital inflows—have led to a significant change in the ownership composition of external debt (table 3.7): the share-of-state (the NBH and government) holdings in external debt has declined, while private-sector-gross indebtedness has grown rapidly.

The story of Hungary's public-debt restructuring has both fiscal and non-fiscal aspects.[11] The surge in capital inflows provided an opportunity to change the forint and foreign-exchange mix in the denomination of the debt. But this had non-negligible costs that had to be factored into the policy design. Although Hungary has the highest inflow of foreign direct investment in Central and Eastern Europe (averaging $1.2 to $1.5 billion a year), non-debt capital inflows were not always sufficient to cover external borrowing needs stemming from the steadily deteriorating current account. After March 1995 the current account improved considerably, capital inflow accelerated, and the excess liquidity stemming from this became the major challenge facing monetary policy. The NBH followed a policy of sterilizing these inflows: the central bank intervened on the strong edge of the pre-announced band to prevent the exchange rate from further appreciation and sterilized the excess forint liquidity. (Under the pre-announced crawling-band regime, the central bank has an obligation to intervene at the edges of the ± 2.25-percent width band.)

The composition of capital inflows changed since the new regime was introduced. Interest arbitraging elements started to grow in mid-1994 when monetary policy was tightened by increasing domestic interest rates. The introduction of the new exchange-rate regime gave a further impetus to these inflows, which increased due to high spread between domestic and foreign interest rates taking into account the depreciation of the forint. Until the last quarter of 1995, enterprises and commercial banks—certainly those with access to foreign sources—were also seeking foreign loans. When domestic interest rates started to decline, approaching parity with foreign rates in the first quarter of 1996, interest arbitraging capital inflows diminished. In 1996, Hungarians were converting foreign-exchange funds to HUF-denominated deposits—strong evidence of growing public confidence. Moreover, as Hungary was upgraded by major international credit-rating agencies, the share of the country in international investment funds increased, which added to the capital inflow, mainly in late 1996 and early 1997. The Budapest Stock

Table 3.7 ***Foreign-Exchange Debt of Hungary, Excluding Intercompany Loans*** **(shares of total)**

Variable	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Gross debt								
1. The NBH	83.5	79.2	75.2	75.9	72.1	68.8	62.2	54.3
2. Government	2.4	6.6	7.5	8.3	8.2	6.5	7.1	7.5
3. Financial institutions	8.5	8.8	8.4	7.5	8.6	9.4	14.1	20.9
4. Enterprises	5.7	5.3	8.9	8.3	11.1	15.3	16.6	17.2
Total (1 + 2 + 3 + 4)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Net debt								
1. The NBH	101.9	82.1	86.0	79.5	71.2	59.1	50.8	35.8
2. Government	1.9	7.7	11.0	12.3	11.4	9.7	8.5	11.2
3. Financial institutions	4.4	3.6	2.2	3.4	7.6	13.0	15.5	22.1
4. Enterprises	-8.1	6.5	0.7	4.8	9.8	18.2	25.1	30.9
Total (1 + 2 + 3 + 4)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Totals may not add up exactly to 100 due to rounding off.
Source: National Bank of Hungary.

Exchange was booming in 1996 due to the large sums (around $750 million) non-residents invested in Hungarian equities.

The surge in capital inflow and the NBH's sterilizing intervention led to a shift in the structure of the debt: on the one hand, the increasing official foreign-exchange reserves allowed some additional amortization of the external debt, but on the other, public debt denominated in forint increased significantly because of sterilization activity.

What were the tools used for sterilization? In 1995, the NBH sold a substantial share of its portfolio of government securities (more than HUF 80 billion) to sterilize capital inflows. In 1996 "reverse repos"[12] became the main sterilization tool. The government was cautious in using privatization revenues, as the largest part of these non-recurring incomes had been spent on debt reduction by pre-payment to smooth the monetary aggregates and keep the fiscal stance in line with longer-run stabilization. Budget borrowing requirements had been cut and could be financed from the market. When capital inflows were the strongest, the government recognized that it would be most cost-effective if the budget took part in the sterilization by issuing more securities than its net borrowing requirement and depositing the excess at the central bank.

As a large proportion of the intervention stemmed from permanent items, the NBH intended to increase the average maturity of the sterilization instruments. Given the lack of marketable Treasuries, the central bank decided to squeeze liquidity by offering 6-month and 12-month deposit facilities, and in June 1997 the central bank issued its own bill with maturity of one year.

Due to the active NBH-sterilization policy, the decline in interest rates lagged behind government hopes, but ex post it is difficult to say that a more ambitious interest-rate reduction would have been feasible. The second half of 1995 was a period of regaining investor confidence, and this always requires some interest sacrifice. Until the interest differential became large, the sterilized intervention was quite expensive—especially in 1995, when domestic interest rates were high, well over parity. Based on estimations of the average interest differential, the excess expenditures related to the sterilization approached 1 percent of GDP in 1995, falling below 0.5 percent of GDP in 1996. This cost appeared in the NBH's profit-and-loss account, which, having already deteriorated in the second half of 1995, turned to a significant loss in 1996. On the benefit side, it should be noted that the inflow of capital allowed the government to swap the foreign-exchange debt into HUF-denominated securities and alleviated the external-debt burden.

CONCLUSIONS: POLICY REGIME CHANGES DURING THE TRANSITION

This chapter has described the changes in public deficit and debt in Hungary during 1986-97. Findings can be summarized by dividing these changes into three subperiods.

In the pre-transition period, there was unlimited monetization of the public deficit. The data before 1991 may underreport report general government deficits because of the lack of transparency in the financing system. Long-term loans at preferential interest rates provided by the central bank were almost the only way of financing the budget, and the true costs of increasing foreign borrowing remained hidden from the budget, as it was the central bank that borrowed abroad. Real interest rates were higher than those in the budgets, and primary balances would probably have been lower if actual borrowing costs and hidden transfers to the corporate sector had been taken into account. The quasi-fiscal activity of the NBH was quite substantial in this period; this was reflected by the sizeable quasi-fiscal deficit at the central bank, although its profit-

and-loss account showed that the NBH was running profits in nominal terms.

The analysis pointed out that the development of the domestic financial crises at end-1994 had its roots in the legacy of the 1980s. The external-debt burden increased fiscal vulnerability in the early 1990s.

The years 1992-94 were a time of postponed fiscal adjustment. As the new system of financing the budget by marketable securities at market prices was introduced in 1992, the ratio of general government deficit to GDP increased steadily due to growing interest expenditures that were not counterbalanced by a primary surplus. There was no adjustment in the primary balance until 1995, when the general government deficit/GDP ratio had reached 8.4 percent on a cash-flow basis (9.6 percent on an accrual basis). An analysis of the primary balance, however, leads to the conclusion that, as the cyclical element of the deficit was quite high, fiscal policy in 1992-94 was not more expansionary than before. Fiscal reforms were postponed not only because of the lack of understanding by policymakers of future dangers, but also because external and internal shocks (in particular the war in former Yugoslavia, the collapse of the Council for Mutual Economic Assistance, and the 1992 bankruptcy and banking laws) prolonged the recession, lengthened the recovery period, and made the need for restructuring more profound than in other transition countries.

Central bank participation in primary treasury bill and bond issues had been significant during this period, as the NBH had to increase financing for the budget both in direct ways (the limits set in the Act on the Central Bank were modified) and in indirect ways (by providing excess refinancing to financial institutions). Interestingly, the overall effect of these different actions—the monetization of the deficits measured by net seigniorage—was not, on average, higher than previously or thereafter (it was somewhat higher than 1 percent of GDP) because money-demand fell immediately when inflation increased and the yield on new instruments became more attractive.

Monetary policy was tightened by raising interest rates starting in mid-1993; this proved to be ineffective in curbing the spiral of increasing real interest rates and increasing borrowing requirements. The price of the debt was increasing, while the average maturity of issues in the market was well below one year. The direction of monetary policy became controversial when the recovery accelerated in 1994. High interest rates were maintained, but liquidity was provided by reducing the rate of man-

datory reserves. Monetary policy was tightened only when—following the financing crises in early 1993—failures of excess liquidity policy were recognized. Under the pressure of high borrowing needs of the budget (in 1993-94), the coherence of monetary policy measures did not improve. By increasing real interest and reducing reserve requirements, the indirect costs of borrowing were increased over the unbearable ceiling by providing tax relief for more than three-year maturity investments in government securities.

Thus, monetary policy actions and, often, fiscal and monetary policy were characterized by a lack of coordination. The outcome was the explosive growth of twin deficits (budget and current account) and the development of serious problems in domestic and external finance. The high budget-borrowing requirement could not be met from the market at any price when foreign-exchange speculation revived. High interest rates increased, enhancing the dangers of crowding out the private sector and moral hazard and adverse selection in the banking sector. This macroeconomic policy was unsustainable and led to the adjustment program of March 1995.

After 1995, policy was aimed at establishing equilibrium conditions for sustainable growth. The reduction and restructuring of budget expenditures in 1995 and 1996 were major factors in maintaining a longer-run fiscal stance consistent with the sustainable growth and disinflation policy. The general government-borrowing requirement/GDP ratio was significantly cut to 3.1 percent of GDP in 1996 by generating a surplus of 4 percent of GDP in the primary balance. The share of interest payments did not rise further in 1995 and —when inflation started dropping—the decline in interest rates and yields was somewhat faster, reflecting a declining risk premium (due to the restored credibility of the new stabilization program).

The current account deficit/GDP ratio also was reduced significantly, to 2.2 percent of GDP in 1997, which could be financed by non-debt capital inflows (foreign direct-investment and privatization receipts). Privatization revenues spent on debt pre-payment contributed to the improvement in debt indicators. The large interest differentials in the first few months of the adjustment program resulted in an increase in interest-sensitive capital inflow. As a result of the improving current account, central bank intervened at the stronger edge of the crawling band even when capital inflows slowed down. The heavy foreign currency conversion allowed the government to restructure public debt. As these inflows exceeded external borrowing requirements, the NBH intervened heavily

to prevent forint appreciation induced by permanent and temporary foreign-exchange inflows. Excess liquidity stemming from foreign-exchange interventions was sterilized to a great extent by the central bank. The costs of sterilization, however, declined as the risk premium on forint-denominated assets decreased due to the increasing credibility. The weakened profit position of the central bank reflected the costs of sterilization. The budget covered the central bank losses to avoid monetization through this channel.

APPENDIX 3.1: ESTABLISHING CENTRAL BANK INDEPENDENCE

Creating the conditions for an independent central bank and divesting the NBH of its quasi-fiscal activities has represented a radical institutional change. The process began with the establishment of a two-tier banking system in 1987. The legal and institutional framework was established by the Act on the Central Bank of 1991. The basic task of the NBH—as stipulated in the Act—is to safeguard the domestic and external purchasing power of the national currency. The Act further states that the NBH is independent from the government but is required to promote implementation of the government's general economic policy. The Act limited the increase in budgetary assets at the NBH (to 5, 4, and 3 percent of target government revenues in 1993, 1994, and 1995, respectively). Institutional independence is coupled with independence from the executive branch and autonomy in the formulation and use of monetary policy instruments. Current monetary policy targets support this priority: the final objective is to control inflation which, in turn, requires an independent monetary policy. The perspective of EU accession and, as a longer-term strategic goal, of reaching EU inflation levels, provide further incentives to central bank autonomy.

Since the 1970s, when foreign borrowing started in Hungary, it was the NBH that borrowed abroad, in its own name. Budget-financing needs were then covered by the central bank by extending forint-denominated loans to the government without statutory limitation. The central bank charged only the direct foreign interest rates (of 7 to 8 percent) on the long-term forint loans that it extended to the budget. But domestic market interest rates were much higher (due to inflation) and the net foreign liabilities of the NBH were large due to exchange-rate losses resulting from the devaluation of the forint. These losses could not be settled in the central bank's profit and loss account. Instead, the NBH credited the budget with non-interest bearing, non-maturing loans to cover exchange-rate losses, called the "zero coupon budget debt." This quasi-fiscal debt

was not a mere accounting problem. Not passing on the full cost of the debt, including exchange-rate losses, to the budget enables the postponement of fiscal adjustment necessary for sustainable economic growth (Leone 1993; Rocha and Saldanha 1992).

Two major amendments of the Act on the Central Bank aimed at creating transparency in the monetary and fiscal functions of the NBH. The first significant attempt to tackle the quasi-fiscal issue was in December 1993: an amendment was voted stipulating that the non-interest bearing budget debt held by the NBH had to be converted into government bonds according to the size of decrease in the net foreign-exchange liabilities of the NBH. Thus it was recognized that capital inflows might lead to sterilization problems and that the NBH needed to be equipped with additional instrument to face problems of excess liquidity. The final steps toward establishing central bank independence were taken in December 1996 with an amendment stipulating that the direct financing of the budget (issues of short-term government debt securities) was forbidden and that the non-interest bearing government debt at the NBH was transformed into foreign-exchange-denominated loans (according to the maturity and interest-rate structure of the NBH external debt). This latest amendment also established the preconditions for a market-based financing regime, as it stipulates that, starting in 1999, the Treasury will borrow abroad in the name of the Hungarian government and the central bank will be responsible for the management of foreign-currency reserves. Basic changes in debt accounting between the Ministry of Finance and the NBH were introduced. The non-interest bearing debts of the budget against the NBH were transformed into a credit on a foreign-currency basis, up to the amount of the net foreign-currency debt of the central bank. Thus, the devaluation losses of the foreign debt appear directly in government accounts and the NBH's profits/losses reflect its monetary operations. As a result of this settlement, the direct, interest-free financing of the budget by the central bank was terminated. By 1997 the NBH had almost fully divested its quasi-fiscal activities and performed only central bank activities, with the exception of foreign-exchange borrowing abroad in its own name.

APPENDIX 3.2: METHODOLOGY FOR DEFICIT AND DEBT CONSOLIDATION

Deficit Consolidation

Equation 3.1, is simply the budget constraint, which equates the above-the-line total nominal deficit with below-the-line financing sources. The

nominal deficit is equal to the primary deficit plus total net interest payments. Interest paid on the general government's debt (including debt held by the central bank) increases the budget deficit. Central bank transfer of profits (less operating expenses) to the government reduces the deficit. The deficit is financed by increasing domestic market debt, by (net) borrowing from the central bank, or by issuing foreign debt directly (the latter was insignificant in Hungary during that period).

$$D_{gg} = PB + i_b B + i_g C_g + i^* C^* E + \Delta(C^* E) - S_c = \Delta B_d + \Delta C_{gd} + \Delta C^* E \tag{3.1}$$

D_{gg} = general government budget deficit
PB = primary balance (excluding privatization revenues)
B = government's net domestic debt outside the central bank ($B = B_n + B_d$)
B_n = non-deficit-financing domestic debt outside the central bank
B_d = deficit-financing domestic debt outside the central bank
C_g = net liabilities at the central bank ($C = C_{gn} + C_{gd}$)
C_{gn} = non-deficit-financing debt at the central bank
C_{gd} = deficit-financing debt at the central bank
C^* = foreign debt of government in foreign-currency terms
S_c = central bank's dividend paid to the government
i = domestic nominal interest rates
i^* = foreign nominal interest rate
E = nominal exchange rate.

The simplified balance sheet of the central bank (excluding non-financial assets/liabilities, which are not relevant in this context) can be written as follows:

$$NFA^* E + C_g + C_p = H + NW$$

NFA^* = net foreign assets of the central bank in foreign currency
C_g = net credits to the government
C_p = net credits to the private sector
NW = net worth of the central bank
H = monetary base, the sum of cash and banks' reserves ($H = CU + R$).

From this balance sheet, (3.2) can be derived, which shows the quasi-fiscal deficit. It is equal to the (negative) change in net worth of the central bank:

$$(3.2) \qquad D_{cb} = -\Delta NW = -i^*NFA^*E - \Delta NFA^*E - i_gC_g - i_pC_p + i_rR + S_c = \Delta H - \Delta C_g - \Delta C_p - \Delta(NFA^*E).$$

By combining (3.1) and (3.2), the nominal consolidated deficit can then be written as follows:

$$(3.3) \qquad D_c = D_{gg} + D_{cb} = PB + i_bB - i^*NFA^*E - i_pC_p + i^*C^*E + i_rR = \Delta B_d - \Delta C_{gn} - \Delta C_p - \Delta(NFA^*E) + \Delta(C^*E) + \Delta H.$$

The real consolidated public-sector deficit, also called operational deficit, can be obtained by dividing all terms in equation 3.3 by the price-level P and decomposing the real interest rate into various components to show the impact of inflation. This is shown in (3.4) where lowercase variables indicate real variables.

$$(3.4) \qquad d = pb + r_bb - r_pc_p + (r^* + e')(c^* - nfa^*)e = (\Delta H - r_rR)/P - \Delta c_p + \Delta b + \Delta(c^*e - nfa^*e)$$

r = real domestic interest rate
r* = real foreign interest rate
e = real exchange rate
e' = real depreciation of exchange rate.

Debt Consolidation

The net debt of government consists of three parts: the domestic debt, the central bank's net claims on the government, and the direct foreign debt:

$$NGD = B + C_g + C^*E.$$

The change in net government debt results partly from the financing of the budget deficit and partly from the accumulation of the non-deficit financing government debt, while privatization revenues reduce the debt burden, as shown by the identity below, in which PR represents privatization revenues:

$$\Delta NGD = D_{gb} + \Delta B_n + \Delta C_{gn} + \Delta EC^* - PR.$$

The bulk of the non-deficit-related increase of the market debt is Treasuries issued for the recapitalization of the banking sector. Non-deficit-related government liabilities at the central bank basically reflect devaluation losses on foreign debt. There is also a small amount of devaluation loss on the direct foreign credits of the government.

Privatization revenues are recorded "below-the-line" and leave the budget deficit unaffected, but reduce the non-deficit-financing government debt.

The monetary base is viewed as a source of seigniorage, and not as a part of the public debt; therefore, the net consolidated public debt (NPD), must be written as follows:

$$NPD = B + Bn + C^*E - NFA^*E - C_p = NGD - H - NW,$$

and the change in the net consolidated public debt equals the change in net government debt minus gross seigniorage and change in the central bank's net worth.

$$\Delta NPD = \Delta NGD - \Delta H - \Delta NW = D_c + \Delta B_n + \Delta C_{gn} - \Delta H - PR$$

This means that the net public debt is determined by the consolidated deficits, the accumulation of non-deficit financing government debt, gross seigniorage, and privatization revenues. Gross seigniorage (or monetary seigniorage) measures the extent to which the consolidated government has recourse to money financing. Net seigniorage is defined as the change in monetary base minus interest that the central bank pays to commercial banks on mandatory reserves. Seigniorage has two main components: the net inflation tax and the real variation in the monetary base (the base of the inflation tax).

NOTES

1. Several assumptions were made in estimating the government fiscal position before 1990, as official data do not reflect the true size of the fiscal sector. The quality of the data before 1990 is weak, and caution is needed in interpreting it. However, data for the pre-transition period are included because the "heritage" of debt and budget structures is one of the important causes of the fiscal problems of this decade. Details on the calculations are presented in Barabás, Hamecz, and Neményi (1998).

2. Monetization of the deficit by the central bank—until 1997 when it was prohibited—took place through different channels. First, the central bank was allowed to finance the deficit by direct credit line and/or by purchasing govern-

ment securities in primary issues. Second, budget financing might be carried out not only through primary issues but also by loosening the general conditions for financial sector lending. The prohibition of direct and preferential lending could be introduced only once the development of the government securities market had achieved a certain level.

3. The relationship between monetary aggregates and inflation changed during the period due to various structural, institutional, and regulatory reasons. The role of money has fundamentally changed in business transactions and in saving. At the beginning of the transition household savings were deposited in the banking system. As the capital and government securities markets grew, non-bank forms of savings (mutual funds, pension funds, insurance, etc.) expanded. The demand for foreign-exchange deposits fluctuated according to devaluation expectations and mandatory reserve requirements. The control of money supply was limited because the surge in capital inflows required sterilization.

4. The term PSBR is used for the sake of simplicity instead of the more precise "borrowing requirement of the general government." The PSBR in Hungary has significantly exceeded general government borrowing needs because, as the share of the state-owned sector was gradually reduced with privatization, the debt of large companies was generally guaranteed but not owned by the budget.

5. Several items were "set aside" so as to underreport the size of the budget in the centrally planned economy. The best example is the "independent" State Development Institute, which borrowed from the central bank without limitation for investments. It was merged into the central budget in 1991 but its borrowings are still reported as non-deficit-related debts.

6. The system of extra-budgetary funds was fundamentally transformed in 1996 when all but five funds were merged into the central budget.

7. Traditional cash-flow measures prove to be weak indicators of the fiscal stance. Accrual-based deficit measures are more appropriate to show whether the deficits are in line with macroeconomic targets, while operational-deficit measures can be used to estimate the borrowing requirement, assuming investors treat the inflation compensation part of interest payments much like amortization. If investors are less rational, or the risk of refinancing is increasing, it may be useful to examine the cash-flow deficit plus amortization to estimate market pressure.

8. Theoretical and data aspects of the estimation of the operational deficit are discussed in detail in Barabás, Hamecz, and Neményi (1998).

9. Pre-transition real interest payments are probably overestimated in the calculations.

10. Given the non-transparent nature of fiscal accounts and the incidence of numerous special events in this period, the actual estimation is much more complicated. Details can be found in Kiss (1998).

11. Given the non-transparent nature of fiscal accounts and the incidence of numerous special events in this period, the actual estimation is much more complicated. Details can be found in Kiss (1998).

12. Reverse repurchase agreements, which are one-week and one-month deposit facilities with the central bank, collateralized by government securities.

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4 Long-Term Effects of Fiscal Adjustment

Jean-Jacques Dethier and Witold Orlowski

In this chapter, long-term effects of fiscal policy are assessed using a general equilibrium model of the Hungarian economy. In the first section, the costs of having postponed fiscal adjustment and structural reforms in the public sector during 1991-94 are measured. It is shown numerically that the short-term welfare gains of the expansionary fiscal policy were outweighed by long-term losses in terms of growth and inflation. The second section addresses a different but related topic: the sustainability of fiscal policy in the context of the accession of Hungary to the European Union (EU). Given the desirability of accelerating economic growth and converging rapidly toward EU income levels, it is asked under what conditions high growth is compatible with achieving the targets of the Maastricht Treaty. Can Hungary implement a credible medium-term program to converge toward Maastricht without imposing excessive social hardships? The answer is yes—provided that irreversible public sector reforms are introduced—but meeting the public-debt criterion will require putting a stronger emphasis on fiscal consolidation than what is implied by the Treaty.

LONG-TERM EFFECTS OF POSTPONING FISCAL ADJUSTMENT

The measurement of the macroeconomic costs of the fiscal deficit, amply discussed in the literature,[1] is not an easy matter. Empirical evidence indicates that that there is no strong correlation between fiscal deficits and any single macroeconomic variable that could be used for evaluating the cost of the deficits (Easterly, Rodriguez, and Schmidt-Hebbel, 1994). The effects of the deficit, whether output losses or inflationary costs, are spread over time and are not always immediately apparent. But the mechanisms by which budget deficits affect growth are known, and their effects can be traced. Budget deficits can be financed in various ways, each leading to different types of effects. In Hungary, they were financed through a combination of inflation tax and increases in (domestic and foreign) debt, with the relative importance of each method of financing changing over time, as shown in the previous chapter.

If the deficit is primarily monetized, and therefore financed through the inflation tax, one can expect the cost to be higher inflation. Although

inflation does not necessarily affect economic growth immediately, it is likely to do so over the longer term. The persistence of high inflation has been shown to be negatively correlated with long-term gross domestic product (GDP) growth (Barro and Sala-I-Martin 1995), mainly because the higher level of uncertainty and instability of the macroeconomic environment thwarts long-term investment projects, thereby affecting growth. Persistent inflation most often translates into persistently high inflationary expectations. As a result, when a government finally decides to launch an anti-inflation program, the costs of breaking the inflationary inertia are generally very high. High inflation is also likely to increase income inequality because the poorest population groups do not generally have sufficient bargaining power to achieve full indexation of their incomes, though the empirical evidence on this point is ambiguous.

Non-inflationary ways of financing the deficit—by increasing either the foreign or the domestic public debt—causes a snowball effect: as the public debt grows, interest payments on the debt also grow and this contributes to the persistence of the deficits. If the government borrows from abroad, the increased capital inflows put pressure on the real exchange rate, which tends to appreciate. This, in turn, can lead to a twin deficit—large fiscal and current account deficits—as was the case in Hungary in 1994, when there was an appreciation of the real exchange rate supported by large borrowing abroad by the central bank, the government, and the private sector. In the Hungarian case, the increase in the budget deficit preceded the increase in the external deficit by about 12 months, an indication that the problem was clearly of a fiscal nature. Sooner or later, inconsistency between an expansionary fiscal policy and a tight monetary policy leads to serious balance-of-payments difficulties (Agenor, Bhandari, and Flood 1992) and in such cases, one can expect stabilization measures to lead to output losses (due to demand restrictions) and increased inflation (due to the initial devaluation).

If increased domestic borrowing mostly finances the deficit, this will translate into an increase in interest rates, leading to two types of effects. The first is crowding out: private investors will be pushed out of the credit market either as their investment projects become unprofitable at those higher interest rates, or because the scarcity of available savings does not allow for the simultaneous financing of both the government's and the private sector's needs. The effect is likely to be a slowdown in economic growth (Buchanan, Rowley, and Tollison 1987). If financial flows are liberalized and the economy is reasonably stable, a different effect may appear. High domestic interest rates make foreign borrowing

cheaper for the private sector. The inflow of capital puts pressure on the exchange rate, leads to a real appreciation of currency, to a deterioration of the current account and, ultimately, to a twin deficit.

There is a third important effect to take into account when the level of the public debt is high. Even when governments bring their fiscal deficit under control, they still have to deal with the presence of the large public debt built up in periods of expansionary fiscal policy. If the country is experiencing high inflation and interest on the public debt is not indexed to inflation, the debt is likely to be depreciated. However, in such a situation, GDP losses resulting from stabilization programs are much higher than in case of moderate inflation. If the value of the debt is not depreciated by high inflation, debt service will increase, forcing the government to generate a higher primary surplus. Ultimately, lower levels of public spending, or higher taxes, will be required to maintain the new fiscal equilibrium with higher interest payments.

The long-term costs of delaying fiscal adjustment are now examined numerically in terms of changes in output and employment levels, inflation and real incomes, and changes in income distribution, using a dynamic general equilibrium model of the Hungarian economy. The main features of the model and the data sources are described in this chapter's appendix. The counterfactual question is asked: assuming that policymakers in 1992-94 had been able to counterbalance the growing interest expenditures on the debt by generating a primary surplus, how would this have affected the performance of the economy? Consequently, to what extent would early fiscal adjustment have helped Hungary avoid some of the long-term costs of the deficits?

Stabilizing the fiscal position of the government and implementing structural reforms in the public sector in 1992-94 would have by no means been an easy task. But, arguably, the general political environment was more favorable to carry out fiscal adjustment than in 1995-96, when it finally took place. First, in 1992, even though social support was weakening, the government still had some of the political credit that it had earned through the democratic elections and that allowed substantial reforms to be implemented. Second, although GDP was still declining in 1992-93—mainly because of unfavorable external conditions—signs of recovery were noticeable. GDP fell by 4 percent in 1992-93 compared to a 15 percent decline in 1990-91, then grew by almost 3 percent in 1994. Third, the high regard for the Hungarian transformation process throughout the world translated into significant inflows of foreign direct investment in 1992-93 of 5 to 6 percent of GDP. If necessary, a temporary in-

crease in expenditure could have been easily financed with the privatization proceedings. There was also some room left for further reductions in subsidies to productive sectors, and government consumption—albeit reduced—remained almost at its pre-transition level, in sharp contrast with the situation in other Central European countries that went through more radical fiscal adjustment. Finally, the public debt was much lower than in 1995, while inflation and interest rates were clearly on a downward trend.

To measure the cost of delaying fiscal adjustment, the long-run path of key variables is tracked. The limitations of our approach must be pointed out. The point of the exercise is not to uncover "causality," but to examine the sustainability over time of a particular fiscal stance connected with a certain path of the debt/GDP ratio. Stable growth of the real economy faces two constraints. Externally, foreign borrowing and the inflow of foreign saving is limited, so that investment, and, thus, output growth, depend on the supply of domestic—government and non-government—saving (the larger public-sector dissavings, the lower the investment level). Internally, there is a "maximum allowable" inflation rate that is, a normative limit that must not be exceeded if the exchange-rate regime is to be credibly defended. Whether inflation can be kept below this limit depends essentially on wage policy and the budget deficit which, as discussed above, directly fuels inflation.[2] The fiscal deficit and GDP growth are directly linked through these channels.

Two long-term growth scenarios are compared during the period 1992-2006: a base-case solution that reproduces historical data until 1996 then extrapolates trends until 2006, and a counterfactual situation that assumes that fiscal adjustment begins in 1992. The difference between the two scenarios represents the long-term gains due to the hypothetical early reforms or, alternatively, the costs of postponing fiscal adjustment until 1995.

Base-Case Scenario

The model is calibrated and solved so as to replicate historical data until 1996, the last year for which official data were available at the time of writing. Trends are then extrapolated to 2006 to obtain an equilibrium growth path that does not assume any further changes in the structure of the public sector, and in which public expenditures and revenues depend dynamically on exogenously given GDP growth rate, tax policy and public consumption, inflation and interest rates, and demographic factors (which affect the labor market and the parameters of the pension system).

The inflation target determines the growth of the monetary base. Therefore, the public-debt buildup depends both on the size of the deficit and on the path of inflation reduction.[3] The base case can thus be considered to be a "historical/steady-state" solution of the model that replicates the actual data for the 1993-96 period.

Counterfactual Scenario

It is assumed that a process of fiscal adjustment and structural reforms in the public sector was undertaken during 1992-96. Specifically, the following policies are assumed:

- Purchases of goods and services by the public sector are reduced by 20 percent compared to the base case, implying significant reductions in public-sector employment.[4] Employment reductions, instead of wage compression, are viewed necessary to make the policy sustainable over time. The cuts in government consumption are assumed to take place in 1992-96 (government consumption in 1995 in the base case is 10 percent higher than in 1992, and in the counterfactual scenario lower by more than 10 percent). From 1997 on, government consumption grows, in both scenarios, at 2.5 percent a year.
- Reforms are introduced in the pension system to eliminate, after 2000, the buildup of a large deficit in what would have to be financed by tax or debt financing. Pension reform is discussed in detail in chapter 7. In the model, it is assumed first that public savings are generated by introducing a new indexation mechanism (with pension benefits indexed 50 percent to the price level and 50 percent to the wage level) in 1993-94, and by controlling disability pensions (assuming that the number of disability pensioners remains constant after 1992). It is also assumed that a three-pillar pension system with a fully funded component is established in 1995. Curbing the growth of pension expenditures allows the pension expenditures ratio to GDP to decline from more than 10 percent in 1992 (in the base case) to less than 9 percent. However, as a result of the switch to a multi-pillar system (discussed in chapter 7), a transitional deficit up to 1 percent of GDP appears in 1998-2000 due to the loss of revenues to the public scheme. The social security contributions/GDP ratio falls from 14 percent of GDP in 1992 to below 12 percent in 2000.
- Reforms also take place in health-care financing and in the health-care system, creating balanced accounts for the Health In-

surance Fund starting in 1995 without transfers from the central government.

- Other transfers to households are controlled so as to avoid a real increase in spending. It is assumed that social transfers—with the exception of unemployment benefits—are constant in real terms between 1992 and 1996, thus allowing for a reduction in their ratio to GDP from 13.5 percent in 1992 to below 11 percent in 1996.
- Public sector capital expenditures are reduced by 20 percent in the period 1992-96.
- These expenditure cuts are accompanied by tax cuts, mainly reductions in social security contributions and in the corporate income tax. These tax cuts are smaller to allow for a gradual reduction in the general government deficit to 3 percent in 1995, then balance in 2002-2006. This reduction leads to a lower level of real interest rates, which helps to reduce the service of the public debt. Compared to the base case, under the counterfactual scenario, interest payments are already lower by 0.8 percentage points of GDP in 1996 and by 1.1 percentage points in 2006.

The order of magnitude of the policy changes is chosen to examine the dynamic sustainability of a fiscal stance connected with a steady fall of the debt/GDP ratio. Choosing the public debt, rather than the deficit, as a long-term policy target is consistent with the observation that governments set debt/GDP targets perceived as sustainable, then derive the financeable deficit consistent with this ratio, the inflation rate, and the growth rate of GDP (Coricelli 1997). As to what would constitute an appropriate budget deficit target for Hungary and some other transition economies, it has been argued that the "Maastricht threshold" of 3 percent of GDP is still too high to ensure simultaneously a continuation of the disinflation process and high GDP growth (Czyzewski and Orlowski 1996).

Table 4.1 summarizes some results of the base and counterfactual scenarios. The share of public expenditure in GDP, in the counterfactual scenario, falls steadily from 60 percent in 1992 to 48 percent in 1995-96, and to 42 to 43 percent after 2000. In the base case, which tracks historical numbers, this share grows to 62 percent in 1994 then declines after the adjustment program (public expenditures being mostly eroded by unanticipated inflation) and stabilizes around the 50-percent level at the end of the period. The budget deficit, in the counterfactual scenario, falls

Table 4.1 ***Simulation Results: Base Case Compared to Counterfactual Scenario, 1992-2006 Averages***

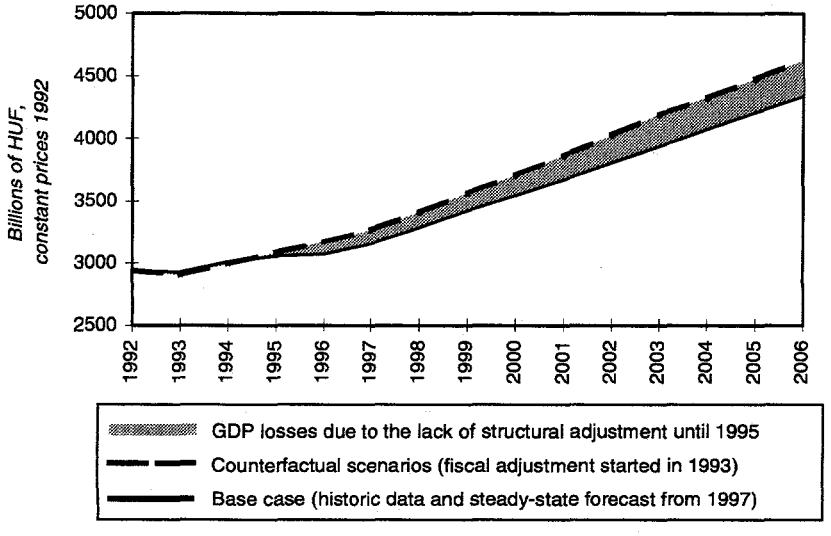
Variable	*Base case (1)*	*Counterfactual scenario (2)*	*Difference (2) – (1)*
Growth rates (average, 1992-2006)			
GDP	2.8	3.3	0.5
Total consumption	2.4	2.1	-0.3
Gross investment	4.0	6.8	2.7
Percentage of GDP (average, 1992-2006)			
Budget revenue	48.4	45.7	-2.7
Budget expenditure	53.3	47.7	-5.6
Budget deficit	-4.9	-2.0	2.9
Public debt	73.4	66.9	-6.5
In percent (average, 1992-2006)			
Inflation	13.7	9.1	-4.6
Interest rate	19.9	13.8	-6.1

Source: Authors' calculations.

from 5.4 percent in 1992 to 3 percent in 1995, then gradually to zero after 2003 to meet the given debt/GDP and GDP growth targets. In the base case, the budget deficit grows to 7.6 percent in 1993 then falls in 1995-97, and stabilizes by 1999 around 4 percent of GDP.

Smaller fiscal deficits, in the counterfactual scenario, leads to much smaller current account deficits, since there is much less pressure for a real appreciation of the forint in the absence of massive borrowing abroad. In the base case, the capital-account surplus is much higher due to the government-borrowing requirements (financed either through direct foreign borrowing of the government or the National Bank of Hungary, or by crowding Hungarian enterprises in search of affordable credit out of the domestic market). The current account deficit, in the counterfactual scenario, grows to 6 percent of GDP in 1993, then falls—without requiring stabilization measures—to 3.5 percent in 1995-96 and to 2.5 percent after 2000. In the base case, the deficit grows to more than 9 percent in 1993-94 then, after the adjustment program, stabilizes around 3 percent of GDP. The stabilization measures that are modeled are those of the March 1995 package including the fiscal adjustment measures mentioned above, a one-step devaluation of the forint, tight monetary policy, and the decline in real wages necessary (in the base case) to avoid an unsustainable balance of payments position.

Figure 4.1 ***Cost of the Deficit: GDP Losses*** **(counterfactual simulation with a computable general equilibrium [CGE] model)**



Source: Authors' calculations based on data listed in the appendix.

Estimates of the long-term macroeconomic costs of postponing adjustment in 1993-94 are calculated as the difference between the base-case and the counterfactual scenarios.

Output Losses

GDP losses due to the fiscal deficit reach, on average, 0.5 percentage points of GDP growth a year during 1993-2006, with the GDP level in the counterfactual scenario exceeding that of the base case by 6.5 percent in 2006 (figure 4.1). There are two main reasons for the gap. First, as the fiscal deficit remains under control in 1992-94 in the counterfactual scenario, the financing requirements of the economy relative to the rest of the world are more limited. Reduced foreign borrowing results in a more limited appreciation of the real exchange rate, which leads to an acceptable current account deficit. Therefore no stabilization measures need to be introduced. In actuality (that is, in the base case), the large current account deficit required stabilization to "cool down" the economy with GDP growth reaching only 2 percent in 1995-96—as opposed to 6 percent in the counterfactual scenario. Second, the lower level of taxation in the counterfactual scenario increases savings of the private sector. Since the level of government savings is also higher than in the base case (due

to much lower deficits), total domestic saving by far exceeds the base-case level. The increased supply of domestic savings leads to a decline in real interest rates and investment increases.[5] Therefore, GDP growth after 2000 is higher in the counterfactual scenario than the base case (by 0.3 percentage points annually).

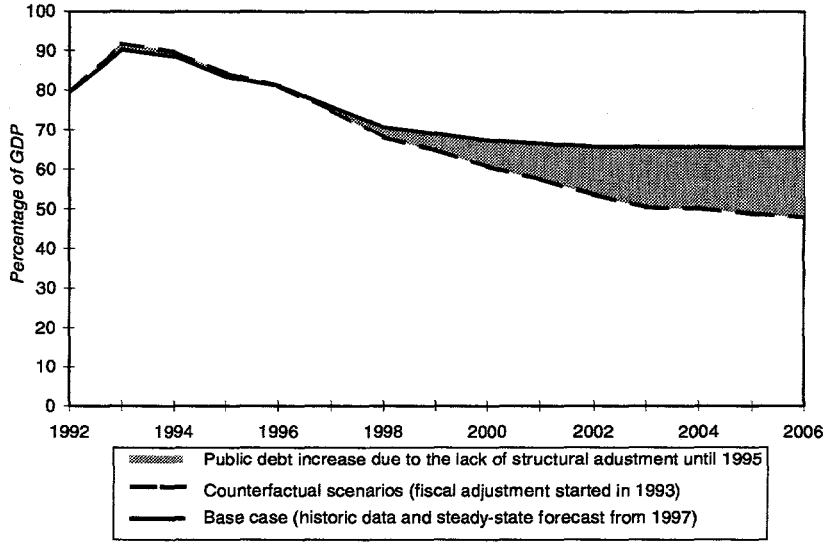
The recent development paths of transition economies, in particular the most advanced ones in terms of reforms, have shown that external balance represents the main medium-term constraint to economic growth. Hungary—and the other post-communist economies of Central and Eastern Europe—have large investment needs to retool industry, build up physical and human capital, and develop infrastructure. The level of domestic saving is low relative to those investment needs. It is the main reason why any acceleration of the economic growth *not* combined with the attempt to increase domestic saving (as, for example, the growth stimulus in 1993-94) immediately results in growing demand for foreign savings, and, therefore, a drastic deterioration in the current account. Structural policies aimed at increasing the level of domestic saving lead to relaxation of the external constraint and allow for faster sustainable growth.

Public Debt

Another major long-term cost of delaying fiscal adjustment is increased public debt. We estimate the cost related to the increased public debt burden at 18 percentage points of GDP during 1992-2006. The public debt in the base case reaches 66 percent of GDP in 2006 by contrast to the counterfactual scenario, in which the debt/GDP ratio is 48 percent in the same year (figure 4.2). Several factors lead to this result. First, in the counterfactual scenario, the steady reduction of the debt/GDP ratio is due to higher GDP growth and lower deficits. As real interest rates fall, debt servicing becomes much smaller, thus contributing to an improvement in the government's fiscal position. Second, there is the effect of inflation, which is twofold. On the one hand, lower inflation means lower nominal interest rates, which contribute to the fiscal improvement in the counterfactual scenario. On the other hand, higher inflation in the base case significantly depreciates the debt and reduces the debt/GDP ratio.[6]

If, however, interest rates are viewed as indexed inflation, as many have argued was basically the case in Hungary, the gains due to the debt depreciation are fully compensated for the private sector by increased interest rates. The real appreciation of the currency, which reduces the

Figure 4.2 ***Cost of the Deficit: Growth of the Public Debt*** **(counterfactual simulation with a CGE model)**



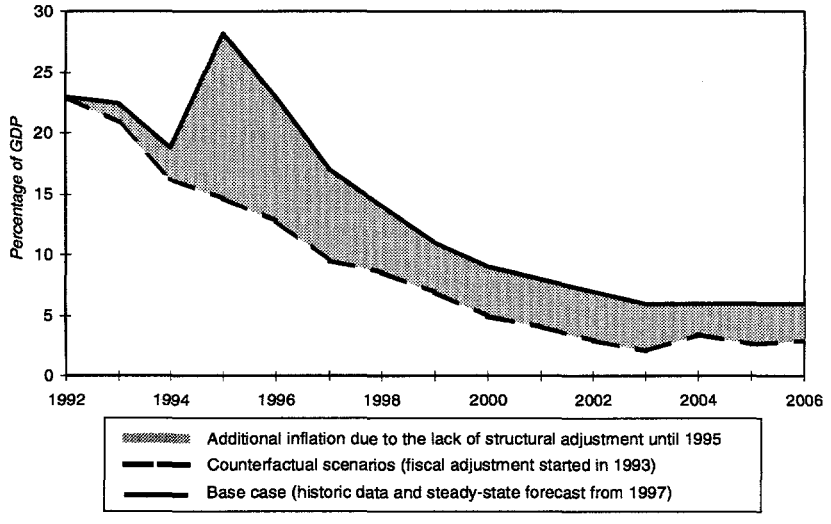
Source: Authors' calculations based on data listed in the appendix.

foreign-exchange-denominated component of the public debt in relation to GDP, would bring about an even faster depreciation of the debt. In 1993-94, the policy of real appreciation was one of the main factors behind the large current account deficit.

Inflation

It is estimated that the average cost of delayed adjustment in terms of higher inflation was 4.6 percentage points of the additional yearly inflation during the 1992-2006 period (figure 4.3). By 2006, the inflation rate measured by the consumer price index (CPI) is still 3 points higher under the base case than the counterfactual scenario. This effect is due to two factors. First, the fiscal deficit and the demand for credit from the public sector, which are both higher in the base case, result in faster money supply growth (due to partial monetization) in 1993-94. Monetary policy, even in the short run, is unable to compensate fully for an expansionary fiscal policy. Second, in the base case, the stabilization program results in a temporary increase in inflation from 20 to almost 30 percent in 1995. This effect is mainly due to the devaluation of the forint, but is strengthened by the indexation mechanisms present in the economy (see chapter 3),

Figure 4.3 ***Cost of the Deficit: Higher CPI Inflation*** **(counterfactual simulation with a CGE model)**



Source: Authors' calculations based on data listed in the appendix.

the most powerful indexation mechanism during 1995-96 being the crawling-peg exchange-rate regime. The authorities chose this regime in March 1995 to avoid resorting to a stronger initial devaluation of the currency.[7]

Collective wage bargaining is another indexing mechanism. However, collective bargaining agreements are not legally binding in Hungary: the government negotiates wage guidelines in national negotiations with employer and trade-union representatives, separately for the private and public sector (the increase agreed in the guidelines has been, on average, equal to the nominal increase calculated ex post), so that there is no formal—that is, guaranteed—indexation. In the counterfactual scenario, CPI inflation falls to single-digit levels in 1997, and to 2 to 3 percent after 2002. In the base case, the single-digit level is reached only in 2000, with inflation still reaching 6 percent in 2006.

Social Costs

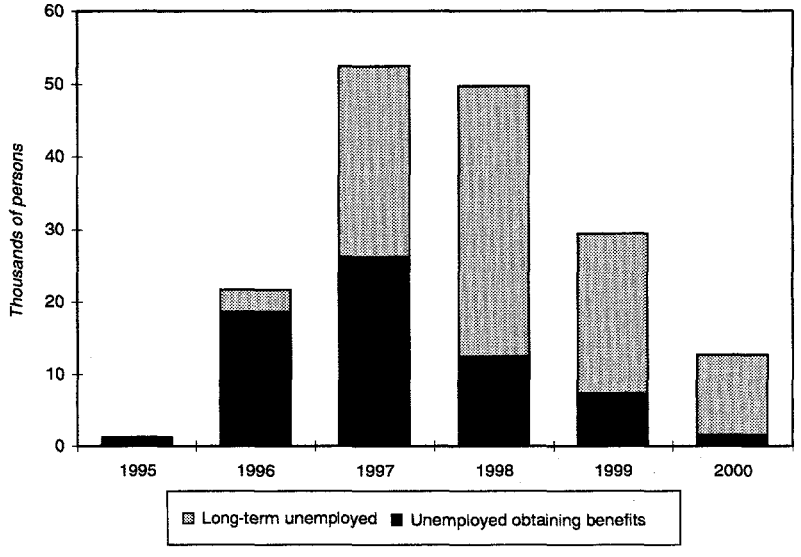
The postponement of fiscal adjustment had significant social costs, partly spread over time and partly experienced, as short-run shocks, during the 1995-96 adjustment period. There are three main short-term costs of stabilization: the decline in real incomes, the increase in inflation, and

the increase in unemployment resulting from the recession. These costs are not all attributable to the adjustment program itself; some reflect institutional features of the economy such as welfare and public-sector employment legislation. Income replacement schemes and transfers maintained income at artificially high levels, and public employment remained high. Some other provisions (early retirement, disability pensions) distorted labor-market incentives and artificially lowered unemployment. The perception that inflation and low growth, that is, insufficient labor demand, are the costs of the adjustment program itself rather than costs of the excessive deficits and inefficiencies inherited from the past, may be understandable, but is erroneous.

INCOME INEQUALITY. The fall in current government spending, including household transfers, increases income inequality (measured in terms of Gini coefficient or poverty headcount) in the short term. In-kind and cash transfers represent a relatively high share of the income of the poor households,[8] implying that this group is likely to be hurt the most severely. The reforms translate into a higher level of income inequality with an estimated Gini coefficient rise of 1.5 percent during a 5-year period (until 2000). The poverty headcount also increases and exceeds 1 point despite faster economic growth. As discussed in chapter 10, these effects can be counteracted by better targeting of social assistance programs that minimize leakages to higher-income households, but this involves administrative costs and implementation problems that are difficult to measure in an aggregate model of this kind.

UNEMPLOYMENT. Irreversible fiscal reforms require sustainable expenditure cuts rather than an increase in taxation (Alesina and Perotti 1996). Obviously, some types of expenditure reductions are easier to reverse than others. In the public sector, employment reductions are likely to be more sustainable than real wage cuts that can be reversed more easily at the end of the austerity program. It is important to include in a fiscal adjustment program measures to reduce excessive public-sector employment to increase both the efficiency of administration and long-term sustainability of the program. Public-sector employment levels, calculated as a share of total population or total employment, are higher in Hungary than in countries with similar per-capita incomes and in other Central European economies chapter 14). This seems to suggest a low relative level of efficiency of the Hungarian public sector and excess employment. Results show that the reform program leads to an unemployment rise of more than 50,000 people two years after the implementation of the measures (figure 4.4). Part of this unemployment is temporary,

Figure 4.4 ***Social Costs of the Structural Adjustment in Hungary: Temporary Increase in Unemployment***



Source: Authors' calculations based on data listed in the appendix.

though it can last several years, as the economy, even on an accelerated growth path, needs time to absorb the additional flow of unemployed. After six to seven years, the economy is able to create enough new jobs to re-employ these workers. Some of these workers may remain in the pool of long-term unemployed, particularly former public employees working in small towns and villages (with low labor mobility), even if additional jobs are created in the economy as a whole.

REAL WAGES. A decrease in real wages is a painful but inevitable cost of fiscal adjustment if high inflation is to be avoided. As mentioned in chapter 2, the 1995 stabilization program relied heavily on incomes policy to achieve a decline in real wages that was needed to achieve Hungary's macroeconomic targets—a decline in consumption relative to investment, and an increase in competitiveness. Real wages fell 16.5 percent in 1995-96 and, according to our model results, would not return to their 1994 level before 2000. Even though fiscal adjustment hurts specific social groups in the short run, the model results show that the process translates on average into long-run welfare gains that largely outweigh the short-run costs. Most importantly, higher growth translates

over time into welfare gains and living standard improvements for all groups in society.

GROWTH AND FISCAL POLICY DURING THE EU ACCESSION PHASE

This section examines the issue of sustainable growth in the context of accession to the EU. Since higher output growth means faster convergence toward average income levels in the EU, how can the Hungarian economy reach—and maintain—high growth while at the same time maintaining a sustainable fiscal stance? Is a high GDP growth rate achievable for a given (financeable) level of budget deficit, debt-to-GDP, and inflation-rate targets?

Becoming an EU member is now the overarching political and economic objective of Hungary. It is an objective that is shared by all major political forces and the vast majority of the Hungarian population. The efforts of policymakers to gradually eliminate internal and external imbalances and put the economy on a sustainable growth path were part of this broader strategic objective, and it is clear that the collective ambition of Hungarians to join the EU has contributed to the social acceptance of the profound and painful reforms that took place in 1995-96. These efforts were acknowledged by the EU when the Commission, in its so-called *avis*, recommended that Hungary be included in the first group of Central and Eastern European countries that should be able to adopt, over a reasonable period of time, the *acquis communautaire* (EU laws and regulations applying to all member countries) and join existing member countries (European Commission 1997).

From a formal point of view, the process of accession to the EU will consist in the gradual adoption, under a mutually agreed calendar, of a large number of legal and economic measures required for the single market for goods, services, capital, and labor. Probably around the time of Hungary's accession, the third and final step of the Economic and Monetary Union (EMU) will begin and the EU will have a common currency. Fiscal, monetary, and exchange-rate policies will be a matter of common concern, even for the countries that will not join the single currency area. The Commission's *avis* clearly states that all countries applying for membership have to accept the broad EMU objectives and fulfill the convergence criteria on a permanent basis.[9] The *avis* also clearly states that new members will be granted an additional transition period and will not have to meet the criteria at the time of accession.

The convergence criteria are considered orthodox rules for conducting fiscal and monetary policy, based on arbitrarily chosen thresholds.

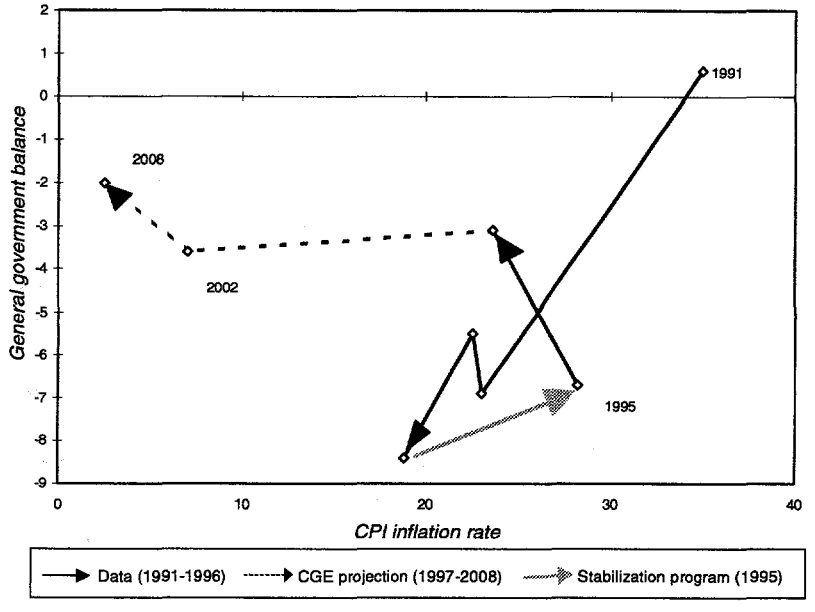
The ultimate objective of the EMU framework is the creation of a stable macroeconomic environment with zero inflation, no exchange-rate risk, a sustainable fiscal position for member governments, and totally free movement of capital. The framework has been criticized by some, especially on the issue of the price to be paid for the introduction of EMU,[10] but the majority view is that expected gains are very significant, once the cost of adjustment to the EMU is absorbed (for example, once budget deficits are permanently reduced). The benefits include a reduced risk of fluctuations in the exchange rate (which is seen as an incentive for long-term economic ventures), price stability, increased predictability of the macroeconomic fundamentals, and a longer planning horizon for economic activity (Nielsen, Heirich, and Hansen 1992). When the irreversible fixing of exchange rates leads to a common currency, additional benefits result from lower transaction costs between countries of the union, elimination of unjustified price differences between markets, a lower level of required foreign-exchange reserves, and dynamic growth effects due to the improved microeconomic efficiency (Gros and Thygesen 1992).

Hungary's per-capita GDP level, on a purchasing-power parity basis, is approximately 40 percent of the EU-15 average. High economic growth is required for Hungary to gradually narrow this development gap. Simple arithmetic shows that narrowing the gap will require sustained GDP growth rates of at least 4 to 5 percent a year for several decades (Baldwin 1994). In 1997, Hungary was far from meeting the criteria. Inflation reached about 18 percent as compared to an EU average of 2.5 percent; the deficit and public-debt levels exceeded by wide margins the Maastricht benchmarks of 3 percent and 60 percent; interest rates were several times higher than in Western Europe; and the currency was still subject to monthly mini-devaluations to maintain external balance and competitiveness.

Hungary will need to present a credible medium-term program of convergence toward EMU criteria. As mentioned above, meeting these criteria is not a precondition for EU membership but the track record of the economy and the national convergence program are likely to constitute the key reference points to assess Hungary's macroeconomic situation (European Commission 1997). Moreover, the credibility of the program will be essential to continue to enjoy favorable borrowing conditions in private international markets.

Figure 4.5 summarizes the path of the economy in terms of inflation (measured by changes in the CPI) and budget balance. Trends in 1991-94

Figure 4.5 ***Stabilization and Adjustment in Hungary: Changing the Path***



Source: Authors' calculations based on data listed in the appendix.

were moving in the wrong direction, with a slow decline in inflation accompanied by a sharply deteriorating fiscal position. The fiscal adjustment measures and structural reforms undertaken in 1995-96 played a decisive role in changing the course, thereby bringing the economy closer to the Maastricht targets. However, from the point of view of narrowing the income gap, the macroeconomic performance in 1993-96 (that is, after the output decline linked to the "transitional shock" of the early 1990s) was highly unsatisfactory, with an average annual growth rate of about 1 percent, a level much below than what is required just to keep pace with economic growth in the EU. In years to come, a necessary—though not sufficient—condition to achieve high and sustained rates of growth combined with a stable external position and declining internal imbalances is to achieve a substantial improvement in the fiscal accounts, which will require structural changes in the public sector.

Is a credible program to reach the Maastricht criteria in the medium run possible—without imposing excessive hardships on the population? Yes, but only if irreversible reforms of the public sector are introduced. Meeting the public debt benchmark of 60 percent of GDP will require, however, putting a stronger emphasis on fiscal consolidation than what is

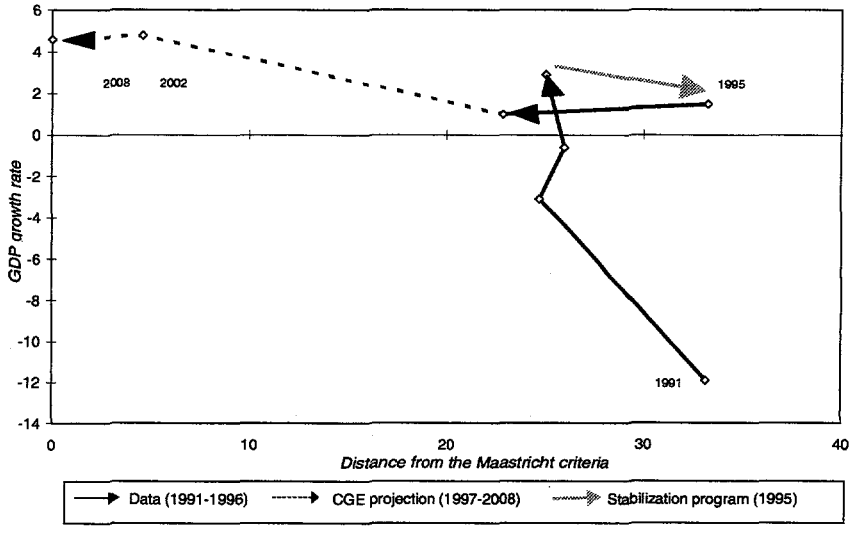
implied by the Maastricht criteria. This is shown numerically in the following paragraphs.

A general equilibrium model is used to quantify the process of convergence toward the Maastricht criteria. The scenarios described here differ from those in the first section from the point of view of the *timing* of the reforms: here historical trends until 1996 are replicated, then it is assumed that fiscal adjustment and structural reforms started in the years 1995-96 are concluded in 1997-98.[11] The results indicate GDP growth of 4 to 5 percent per year can be achieved while at the same time converging toward the Maastricht targets, with inflation reaching 2.5 to 3 percent by the end of 2006, if public sector reforms are implemented and government consumption is held constant at about 10.5 percent of GDP in 1997-98. However, to stabilize public debt below 60 percent of GDP, the fiscal stance would need to be stricter than what is implied by the Maastricht Treaty. The fiscal deficit after 2002 would need to decline below 2 percent of GDP. Such a fiscal stance may be difficult to maintain in view of the fact that EU accession implies the total elimination from the Hungarian budget of all customs revenue (which would be channeled to the EU budget), an obligation to contribute to the EU budget, the need to cofinance from the central budget investment projects partly financed by the EU regional development funds, and the transition costs of the pension reform (see chapter 7).

Figure 4.6 presents actual 1991-96 trends and the projected path for 1997-2008, showing the tradeoffs between growth and macroeconomic stability (as defined by the Maastricht criteria).[12] From 1991 to 1994, growth improved substantially (with GDP moving from -12 percent in 1991 to + 3 percent in 1994) but there was no observable improvement in macroeconomic stability. In 1995 and 1996, the move toward EMU targets was rapid, but the price was paid in terms of lower growth. The stabilization program (and associated structural reforms), however, set the foundations for sustainable growth.

Macroeconomic stability combined with accelerated growth—assumed in our model to exceed 4.5 percent after 2000—is possible. One of the main problems that Hungary has is its public-debt level. The 1997 level of 65 percent of GDP can be reduced below the Maastricht threshold only to the extent that strict fiscal policies maintain the deficit below 2 to 2.5 percent of GDP over the next few years.[13] Such a fiscal policy would result in growth, rather than have a contractionary impact, only if it was accompanied by strong supply-side stimulus to induce a supply response, in particular reductions in social security contribution and tax

Figure 4.6 ***Stabilization and Adjustment in Hungary: Convergence and Growth***



Source: Authors' calculations based on data listed in the appendix.

rates and increases in tax bases through improved compliance. These are possible only if the structural reform process in the public sector is deepened and extended to notoriously hard-to-reform areas such as the civil service and health care.

Even though the decline in the GDP share of general government expenditures between 1994 and 1996 (from 62 percent to 50 percent) has few international precedents, the expenditure share of Hungary is at least twice as high, on average, as that of the economies of Southeast Asia, which have historically experienced high GDP growth, their current crisis at the time of this writing notwithstanding. The size of government in Hungary remains large, requiring a high level of taxation that creates disincentives for private saving and investment, and for legally hiring labor. The process of reducing government expenditures and taxation, which began in 1995, would need to be sustained to increase the dynamism of the private sector and generate sustained high GDP growth. Moreover, reducing the size of the state needs to be accompanied by structural reforms in the public sector to make the process irreversible. One must keep in mind that a significant part of the public-expenditure

decline in 1994-96 was due to real wage cuts in the public sector (almost 3 percentage points of GDP) and to savings on purchases of goods and services by budgetary institutions (an additional 4 points), both of which are reversible.

So far, in terms of structural reform of the public sector, the most important achievement has been the pension reform (chapter 7). Its significance derives from the fact that it allows simultaneously a reduction in government spending, the promotion of private saving, and improvements in competitiveness, thereby contributing in no small way to an increase in growth potential. If no reform had been undertaken, the growth of pension expenditures in Hungary—9 percent of GDP in 1997, a lower level than in neighboring countries such as Poland or Croatia and comparable to that of several Western European countries—would have led to increasing budgetary problems because of unfavorable demographic trends and built-in inertia in the pension system.[14] The type of pension reform that has now been adopted by Hungary initially implies additional fiscal deficits (averaging 0.6 percent of GDP in the first three years) because of the introduction of a funded component but, in the medium term, produces fiscal savings of around 1.5 percent of GDP (before taking revenue losses linked to the transition to the funded system into account). This helps to further strengthen the initial increase in national savings expected in the medium term. The increased fiscal deficit that results from the partial privatization of the public pension scheme (shifting from pay-as-you-go financing to a funded scheme), should not be taken to imply that the fiscal stance has become looser than it would have been if the funded scheme had not been introduced, as the increase in public sector debt will have little impact on national savings—and is the result of converting an implicit government debt into an explicit debt.

Reducing the general governments deficit below 3 percent of GDP at the expected time of EU accession, given the decline in interest payments that should result from the drop in inflation, can be achieved only if the authorities manage to generate a primary surplus of more than 2 percent of GDP for a sufficiently long period (1998-2000). Since this primary surplus includes the budgetary transfers that will be made by the central budget to the pension fund to offset the revenue losses caused by the progressive diversion of contributions to the second pillar, generating a primary surplus of this magnitude implies a continuation of the fiscal consolidation process to achieve fiscal adjustment in real, as opposed to nominal, terms. Real fiscal adjustment is necessary if the pension reform is to lead to an increase in real national savings. Otherwise, the new pri-

vate pension funds would not be able to finance private investment and would just hold government paper. The model results indicate that such a fiscal program could lead, in the medium term, to increases in real national savings equivalent to the revenue losses due to the pension reform projected for this period (about 1.5 percent of GDP in 1998-2002). There would be other sources of increases in savings coming from the household and enterprise sectors that would allow investment to increase without external disequilibrium.

It is not clear at all whether such a fiscal effort is politically and socially feasible. In 1998 (the year of general elections and change in government) and beyond, further fiscal-consolidation measures and structural reforms would be required in public-sector areas that are notoriously hard to reform, such as the civil service and health care, to ensure increases in national savings that could be channeled to productive investment by the private sector. Cross-country studies (Alesina and Perotti 1996) have shown that only expenditure cuts allow for long-term improvements in deficits and that tax increases give only a temporary effect. They also indicate that not all expenditure cuts are equally sustainable in the long run. For instance, public-sector employment cuts are sustainable, while wage compression can be reversed as soon as the economic situation improves.

Introducing non-reversible reforms in public finance would seem to be a precondition for the sustainability of the fiscal stance in the long run. If growth accelerates above current projected levels, primary expenditure of the general government would need to be maintained constant in nominal terms to save revenues from stronger economic growth. General government expenditures, which already have declined by 12 percent of GDP in three years, would need to continue their declining trend. Achieving a GDP ratio of about 35 percent by 2006 would seem a reasonable target.

In the medium term, fiscal policy—in combination with the capital-market effects of the pension reform—should contribute to maintaining the savings ratio at a much higher level than in 1997, which could sustain higher levels of fixed investment. The increased investment would likely be accompanied by improvements in allocative efficiency, generated, among other factors, by the development of the capital market and reduced distortions in labor markets. These factors, taken together, should make it possible to sustain GDP growth rates of about 5 percent a year while maintaining a sustainable current account position.

Fiscal consolidation will be necessary to meet both growth and reduced inflation objectives. Inflation could drop to average EU levels early in the next decade. But meeting the inflation target without affecting external competitiveness (necessary to face competition in the single market) requires coherent exchange rate, wage, fiscal, and monetary policies. The use of the exchange rate as a nominal anchor requires active policies to keep nominal wage increases at a low level and to reduce fiscal pressures on aggregate demand and on the prices of non-traded goods.

APPENDIX: MODEL STRUCTURE AND DATA

The simulations presented in this chapter were performed with a computable general equilibrium (CGE) model of the Hungarian economy. Such models are now commonly used to analyze long-term growth in market economies. The models postulate that, over the long term, an economy develops as a result of a continuous adjustment of demand and supply factors: production capacities increase as a result of cumulative growth of production factors, and changes in the price structure inform consumers about production costs and force producers to allocate production factors in accordance with consumer decisions.

In the model for Hungary, the following assumptions are made. Economic agents are rational; producers maximize profits, and households maximize utility. Prices of goods and services are flexible and clear the market. Wages, however, do not clear markets. As a result, some unemployment exists due to technical reasons and labor-market inflexibility. The relative level of unemployment resulting from these factors is assumed to diminish over time as labor-market reforms proceed. Capital is assumed to be mobile in the medium term but not in the short term. Capital mobility in the medium term is assured by an investment allocation function that takes into account differences in the return to capital across sectors of the economy.[15] Investment increases the capital stock only with a one-period lag, so that the stock of fixed capital by sector is fixed in any given period.

For a given level of incomes and allocation of production factors, domestic demand for goods and services—previously distinguished from import demand depending on relative prices—is confronted in each sector with the level of supply. If markets are not in equilibrium, prices and, consequently, profitability will vary. Given the new price information, consumers modify their demand, and producers their output and demand

for labor. The demand for labor is confronted with supply, determining the wage level, and the demand for the foreign exchange is confronted with supply, determining the exchange rate. For any vector of prices, wages, and exchange rates, a distribution of primary and secondary sectoral incomes can be calculated. The new income structure leads to the new demand structure. The model is solved iteratively until a vector of prices that ensures equilibrium on all markets is found.

In terms of macroeconomic closure, the model is savings driven: for a given current account deficit level, investment and output depend on the level of domestic saving. Since the market for foreign currency is flexible, the real exchange rate that corresponds to any given current account level can be calculated. In the counterfactual scenario, we assume that the current account deficit is entirely financed by foreign direct investment, so that net foreign debt does not increase. In the base-case scenario, foreign borrowing is necessary to cover the financing gap in 1993-94, then gradually declines until 2002, after which the current account deficit is assumed to be financed by foreign direct investment inflows.

The model is disaggregated into eight economic sectors and four domestic institutions (households, government, non-financial sector, and financial sector). The foreign sector is divided into three groups (European Union, Central European Free Trade Association countries, and other countries).

The model equations presented here are in simplified form, omitting parameters and variables that are not significant for an understanding of the mechanics of the model.

Household consumption is given by the indirect addilog system, relating the level of demand in particular groups with the level of disposable income and relative prices:

$$C_i = f_i\,(Y(1 - tax)/P, P_i/P)$$

C_i = demand for product i
Y = income
tax = tax rate
P_i/P = ratio of price i to average price.

Household savings (S_g) equals the difference between disposable income and expenditure:

$$S_g = Y(1 - tax) - S_i\, C_i P_i.$$

Investment is equal to the sum of savings (after tax profit) of the non-financial sector, households, government (where "negative savings" of the government is equal to the deficit of the current account of the budget), and the foreign sector (foreign savings is equal to the current account deficit).

Exports depend on the foreign demand and on prices of Hungarian exports relative to world prices:

$$E_i = \alpha(FDem_c)^{\beta}[P_i\, XR\, (1 + tar_{z,i})(1 - subs_i)/P_W]^{\gamma}$$

E_i	=	exports of good i
$FDem_c$	=	foreign demand in country group c
XR	=	exchange rate
$tar_{z,i}$	=	foreign tariff on Hungarian good i
$subs_i$	=	export subsidy (estimated only for agricultural products as the difference between domestic and world prices)
P_W	=	world price.

Total demand is the sum of demands from households, government (exogenously given), investment, exports, and intermediate demand:

$$Q^d_i = C_i + g_i\, G + i_i Inv + E_i + \Sigma_j a_{ij} X_j$$

Q^d_i	=	total demand for good i
G	=	government demand
Inv	=	investment demand
X_j	=	gross output of branch j
g_i, i_i, a_{ij}	=	coefficients from the input-output table.

Demand for imports is given by "Armington functions" (based on the assumptions of cost minimization by consumers and imperfect substitution of imports and domestic production):

$$M_i / X_i = \alpha[P_i\, XR / (P_W(1 + tar_i))]^{\sigma}$$

M_i	=	imports of good i
tar_i	=	Hungarian tariff on good i.

Production functions are of the Cobb-Douglas type:

$$X_i = \alpha\, L_i^{\beta}\, K_i^{(1-\beta)}$$

L_i = employment in branch i
K_i = fixed capital in branch i.

Demand for labor is derived from the maximization of the profit function of the non-financial sector:

$$L_i = \beta\,(X_i P_i\,(1 - vat_i) - \Sigma_j a_{ji}\,X_i\,P_j)/w_i$$

w_i = wage in branch i, which is a constant function of the average wage
vat_i = VAT rate.

Capital stock in branch i depends upon the capital stock in the previous period, depreciation, and investment in branch i in the previous period (where investment in branch i depends on volume of production and the return on capital in that branch):

$$K_i = K_{i,t-1}\,(1 - \delta_i) + Inv_{i,t-1}$$

δ_i = depreciation ratio in branch i.

Household income is the sum of primary incomes (wages, capital income, and mixed income), transfers from government (including old age and disability pensions), transfers from abroad, and interest payments on the financial assets owned by households.

Government income is the sum of revenues from taxes (indirect and direct, including social security contributions) and tariffs; *expenditure of government* is the sum of government consumption, transfers to households, enterprise subsidies, and net interest payments on the public debt.

After-tax profits of enterprises are calculated residually, as the difference between total revenue of enterprises and their expenditure, corrected for transfers received from other sectors and net interest payments on their debt:

$$\Pi_i = (X_i P_i\,(1 - vat_i) + ntransf_i - \Sigma_j a_{ji}\,X_i\,P_j - L_i\,w_i - int_i\,)(1 - tax)$$

Π_i = profits in branch i
$ntransf_i$ = net transfers from other sectors
int_i = net interests
tax = corporate income tax.

Net saving/borrowing by sector is calculated as the difference between investment in the sector and the sum of the sector's gross saving and net capital transfers received.

Net debt in each sector is the sum of the debt at the end of the previous period and net saving/borrowing of the sector in a given period.

Market clearing for the products markets determines the equilibrium price Pi balancing demand with supply (the sum of production and imports):

$$Q^d_i = X_i + M_i.$$

Market clearing for the labor market determines the equilibrium wage (with a given rate of "structural" unemployment):

$$L^s (1 - UR) = \Sigma_i L_i$$

L^s = total labor supply, determined by demographic factors
UR = assumed structural unemployment rate.

The Balance of Payments identity determines the equilibrium exchange-rate equating revenues (the sum of export earnings, transfers, and capital inflows) with expenditures (the sum of expenditures on imports, interest payments, and transfers) plus the necessary increase in foreign-exchange reserves. Total capital inflows—equal to the capital account surplus—are exogenously given.[16]

Net foreign debt is the sum of the debt at the end of the previous period and of the current account deficit in a given period, less foreign direct-investment and foreign assets held by domestic institutions (which are essentially foreign-exchange reserves).

Data Sources

The data for the model are organized in a social accounting matrix (SAM) constructed for the year 1995. The main sources of data for the SAM are the national accounts and employment figures published by the Central Statistical Office (1996). The 1991 input-output table was also obtained from the Central Statistical Office. The data on stock of debt by sector have been estimated by author Witold Orlowski using data from the National Bank of Hungary, the Hungarian Statistical Office, the Ministry of Finance, and the Budapest Stock Exchange. The parameters of the model are generally calibrated using the 1995 SAM data. Con-

sumer demand elasticities, elasticities of substitution between domestic and imported goods, exports elasticities, and investment-allocation elasticities were estimated by Orlowski using yearly or quarterly data. The data on distribution of household income are from Szivos (1995), TÁRKI (1995), and the World Bank (1996).

Differences Between the Simulations

The remainder of this appendix describes the differences between the simulations in the first section (Long-Term Effects of Postponing Fiscal Adjustment) and the second section (Growth and Fiscal Policy during the EU Accession Phase). The base case presented in both sections in this chapter is identical: it consists in replicating historical trends in 1993-96 followed by a "no-structural-reforms" period in 1997-2006.

The counterfactual scenarios in the two sections differ from the point of view of the *timing* of the reforms, but the numerical values used for the changes in variables and parameters are identical.

- In the first section, fiscal adjustment and structural reforms, described in details in the text, are hypothetically assumed to start in 1993-94.
- In the second section, fiscal adjustment and structural reforms started in 1995-96 are assumed to be concluded in 1997-98.

The main changes in the value of the exogenous variables and/or parameters that are assumed are as follows:

- The pension system has balanced accounts from 1997 onward mainly because of the change in indexation formula. However, as a result of the systemic change, a transitional deficit of about 1 percent of GDP starts appearing in 1999.
- Health financing reforms take place in 1997-98, allowing the Health Insurance Fund to balance its accounts by 2000.
- In 1997-98, welfare reforms take place so as to avoid a real increase in spending on "other transfers to households."
- In 1997-98, government consumption is reduced by 20 percent compared to the base case.
- Public investment is reduced by 20 percent in 1997-98 compared to the base case.
- The spending cuts mentioned above are accompanied by cuts in taxes and social insurance contributions, but of a smaller mag-

nitude. This gradually reduces the general government deficit to a level of 3 percent of GDP by 1998.

NOTES

1. See Barro (1991), Levine and Renelt (1992), Easterly, Rodriguez, and Schmidt-Hebbel (1994). For a recent analysis of transition economies, see Fischer, Sahay, and Végh (1997).

2. See Kornai (1997). An alternative would be to target some monetary aggregates, but the Hungarian authorities have preferred to adopt an exchange-rate rule because of the difficulty in reliably forecasting money demand in a period of macroeconomic uncertainty and structural changes in the economy.

3. If the inflation reduction path is more ambitious, there is less room to monetize the deficit. Over the long run, the faster the reduction of inflation, the faster the fall in nominal interest rates, and the smaller the debt service. But getting on a path of steady inflation decline requires an initial effort of fiscal deficit reduction; otherwise, the "unpleasant monetarist arithmetic" applies.

4. According to Central Statistical Office figures, final government consumption measured at constant prices increased by 17 percent while GDP declined by about 16 percent between 1989 and 1994. The share of government consumption in GDP, measured at current prices, increased from 10 percent in 1989 to 12 percent in 1994. Maintaining the government/GDP share at its 1989 level would approximately require a 20-percent drop in public consumption.

5. The model does not use any behavioral equation to explain the level of investment (in terms of interest rate or otherwise). Since the model is savings-driven, it is simply assumed that the market is cleared by interest rates and that investment is restricted by the total amount of disposable funds. Such an assumption is not unreasonable given the vigorous growth of investment observed in 1993-97 in most successful transition economies.

6. The effect of inflation on both interest payments and the debt level can be netted out if the operational (real) deficit is used rather than the nominal deficit (see chapter 3).

7. If the exchange rate had been pegged and had played the role of nominal anchor, a much stronger initial devaluation would have been necessary (see chapter 2, table 2.1, for a comparison with Poland and Czechoslovakia). A stronger initial devaluation, however, would have required a much stricter monetary policy to reduce inflation, which would have lead to a deeper recession.

8. On the distributional impact of the measures, see chapter 10.

9. The convergence criteria of the Maastricht Treaty include a low inflation rate (maximum 1.5 points higher than in the three EU countries with the lowest inflation), low interest rates (maximum 2 points higher than in these countries), a deficit of the consolidated government at or below 3 percent of GDP,

a public debt at or below 60 percent of GDP, and a stable exchange rate (with fluctuations not exceeding the bands of the European Exchange Rate Mechanism).

10. Most of the criticism is based on the 25-year old Fleming-Corden argument about the non-optimal tradeoff between inflation and unemployment resulting from a monetary union (Fleming 1971).

11. See the appendix in this chapter for a description of the differences between the simulations in the first section (Long-Term Effects of Postponing Fiscal Adjustment) and in this section.

12. Used here is the definition of the distance from the Maastricht criteria proposed by Gros and Thygesen (1992). It is the sum of the distances from the targets (in percentage points) for inflation, interest rates, fiscal deficit, and exchange rate (with zero devaluation assumed as the target), plus the yearly decline in the public debt required to meet the debt criterion over a 6-year period. Excluded from the measure is the unemployment rate that Gros and Thygesen use in their measure.

13. This implies a more significant fiscal effort than envisaged by official medium-term projections. The projections of the government (contained in the 1998 budget document) envisage a reduction in the deficit of the general government to 3 percent of GDP by 2002. The projections consider that this target can be achieved if a primary surplus of 2 percent of GDP is generated for three years (1998-2000) because interest payments would decline solely as a result of the decline in inflation.

14. Pension reform was not considered an urgent priority during the first years of transition. This is now considered a costly error by the early reformers (Balcerowicz and Gelb 1994).

15. In more conventional CGE models, capital is mobile until its return is equalized across sectors. In the model in this chapter, the unit income from capital in a given branch is a function of the existing capital stock (itself the result of investment decisions made in previous periods) and of the relative prices of products and labor. Therefore, there exists no single price of capital that clears the market, and the return to capital varies among sectors.

16. Therefore, the current account deficit is also given. Alternatively, the model could be solved for a given level of the nominal or real exchange rate, in which case the current account deficit would be endogenously determined.

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PART II

THE REFORM FROM A HISTORICAL AND COMPARATIVE PERSPECTIVE

5 Twists and Turns: The History of the Hungarian Public Finance Reform

Csaba László

In the course of the 1987 debate on tax reform, one of the most important events of the years preceding the political and economic transition, a new and, since then, often-used term was born in the Hungarian Parliament: public finance reform. The need for reforms became evident to those in charge of economic policies in 1986. Even though many changes have since been made in Hungary's public finance, the reform is far from over (see the 1999-2000 forecast in table 5.1). Many people still expect the reform to allot more financial resources to certain state duties, others hope for budgetary savings and tax reductions.

In the past 10 years, countless illusions have been fostered by the reform, and even today no consensus has been reached as to its correct interpretation. Reform committees were created and dissolved, some of which met only once over several years, while others met 10 to 15 times within six months. Plans were prepared, never discussed, while structural changes in public finance were made without mentioning sector reform.

There is, perhaps, one issue on which all the experts in the subject agree: a comprehensive public finance reform can be realized only gradually over several years. Furthermore, this process entails countless conflicts of interest and polemics; a whole range of compromises is needed to attain progress. This chapter sketches the history of Hungary's public finance reform, pointing out both obstacles and achievements. The focus is primarily on the progress made during the reform, but also described are the decisionmaking stages to make the process more easily intelligible.

First, the main question must be clarified: What is the aim of reforming public finance—what does this reform entail? One aim is to transform a public finance system shaped by socialist economic policies to meet the demands of a modern pluralist parliamentary democracy and free-market economy. This means creating a transparent budget system that meets the needs of democratic political decisionmaking, in which the state, once rid of its former excessive responsibilities, adjusts the tasks retained to the demands of a market economy. The state must be smaller, and its financing must be macroeconomically sustainable. Reform is not an issue of automatic increases in spending on state tasks or across-the-

Table 5.1 ***General Government Accounts***

Indicator (percentage of GDP)	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997 (preliminary actual)*	*1998 (approved budget)*	*1999 (forecast)*	*2000 (forecast)*
Consolidated general government revenues excluding privatization revenues	--	--	52.8	52.3	53.9	52.4	46.7	47.1	45.8	42.7	39.8	38.4
Consolidated general government expenditures	--	--	55.8	59.3	60.3	60.8	53.4	50.3	50.6	47.6	43.8	42.0
Consolidated primary revenues	--	--	51.0	51.1	52.8	51.3	45.9	45.3	43.4	41.3	38.9	37.8
Consolidated primary expenditures	--	--	49.9	53.8	55.8	54.0	44.3	41.0	40.3	39.4	36.9	36.0
of which: interest payments	3.2	3.0	5.9	5.5	4.5	6.7	9.1	9.2	10.3	8.2	6.9	5.9
General government balance[a]	-2.7	0.3	-3.0	-7.0	-6.5	-8.4	-6.6	-3.1	-4.8	-4.9	-4.0	-3.5
Primary balance	--	3.3	1.0	-2.6	-2.9	-2.7	1.7	4.3	3.1	1.9	2.0	1.8
Gross public debt of the general government	73.1	66.3	75.0	79.0	90.3	88.2	86.2	73.3	65.0	59.3	57.0	55.0
Overall general government balance[a] (billions HUF)	-46.3	7.0	-75.8	-207.2	-230.1	-367.3	-372.8	-212.6	-406.8	-463.8	-459.6	-459.6
Primary balance (billions HUF)	--	76.2	25.5	-77.9	-104.4	-118.1	92.8	294.0	260.4	173.7	227.0	226.8

-- Not available.

a. Excluding privatization revenues (GFS format).

Source: Ministry of Finance.

board lump-sum cuts; reform means structural changes that lead to changes in the operation of budgetary institutions, and the behavior of the parties involved. The institutional system of performing state tasks is made more efficient and economic. Following a real structural reform, the system will operate better on significantly fewer resources.

The basic elements of public finance reform can, thus, be classified into three distinct groups: measures to reduce public resources needed to meet macroeconomic demands; measures transforming the way the state performs its tasks; and measures transforming the institutional systems and economic regulations determining the operation of the budget and the behavior of the parties involved. In the past decade a significant shift of emphasis between these groups has taken place.

WHERE WE CAME FROM

In the 1980s Hungarian public finance manifested all the problems characteristic of socialist economies. In 1988 the consolidated expenditures of the public sector were some 60 percent of the gross domestic product (GDP). This was higher than in other socialist countries, because, as a result of the 1968 economic reforms, the influence the state exerted through the system of central plans was weaker, financial subsidies for state-owned enterprises were already explicit, and social transfers were given more importance.

Until the 1988 tax reform there was no personal income tax. A mono-phase cumulative tax was the most commonly used turnover tax, and a significant part of revenues came from taxes (for example, investment and assets taxes) imposed on the state-owned corporate sector. A threat of serious evasion of the standing tax regulations was impossible to conceive. The number of taxpayers was relatively small, as was the number of those in charge of tax control.

On the expenditure side, linked to investment activities of the central government, the ratio of expenditures was significant, and consumer and producer subsidies emulated those customary in market economies. Hungary, to use the words of János Kornai, was a "premature welfare state," where in the absence of means-testing, generous welfare expenditures far surpassing those of similarly developed countries burdened the general government budget.

The state budget, which included social security benefits, played a decisive role in the structure of public finance. Furthermore, there were 20 to 30 more or less independent extra-budgetary funds that removed a

substantial part of public funds from—already rather limited—parliamentary control and the traditional bargaining process of public finance. The local level of public finance was represented by municipal councils heavily dependent on central government transfers. These councils had only minimal political and fiscal independence.

Even though the state budget was formally approved by Parliament, there was no real parliamentary control. The budget plan presented to Parliament contained 20 to 30 appropriations at best, and the budgetary debate and decisionmaking was over and done with in half a day without the original suggestions being altered to the smallest degree. The principles of fiscal operation, regrouping of funds, freezing or the division of competence between government and Parliament, and the schedule of fiscal decisionmaking were insufficiently—or not at all—regulated. No one even thought of making rules for special cases, such as what was to be done if there was no approved budget at the beginning of the new fiscal year. The role of the executive power was significant, but actual power remained in the hands of the Hungarian Socialist Workers Party, which exercised authority over all major decisions.

However, after the early 1980s, operation and management of budgetary institutions became "soft" in the economic sense. In the name of independence, strict and heavily regulated economic management—also characteristic of Western systems—was gradually replaced by loose management. To counterbalance the lack of funds, institutions were given freedom to solve their financial problems in their own ways. This process seemingly suited the spirit of independence emerging in the corporate sector, and the curtailing of excessively strict state regulations.

While problems of public finance disequilibrium were already present, they were not explicitly manifest. The central bank, under the strict supervision of the government, was giving unlimited financing to the government with low-interest credits. The source of these credits was money printing and, even more so, foreign borrowing, which, in turn, led to increasing inflationary pressure and accumulation of external debt. Thus, the effects of central overspending mostly took the indirect form of external indebtedness.

By the end of the decade, the state of public finance made the general government ripe for radical transformation, for fiscal reform in both the political and economic senses. Once this was recognized, preparation of reform measures started at the beginning of 1988.

EARLY ATTEMPTS (1988-SPRING 1990)

The first major step in public finance reform was the tax reform connected with the name of Peter Medgyessy—Finance Minister then Deputy Prime Minister from December 1986 to May 1990. This step radically transformed the structure of fiscal revenues, creating Central Europe's first tax system comparable to that of Western European market economies. Personal income and value-added taxes were introduced January 1, 1988, and the idea of a tax on corporate profits was accepted by the Parliament a year later. Simultaneously, the sales, investment, and corporate assets taxes disappeared. The growing number of taxpayers induced the development of a much larger fiscal control system. The system of social security contributions, on the other hand, was hardly touched until 1996.

Two years before the transition, at the turn of 1988, no one dreamed that the speed and the depth of political transition would be such that a basically pluralist parliamentary democracy would evolve by 1990, and that the political powers would accept a market economy model by this date. In 1988, therefore, a public finance reform concept was accepted that sought to complete the reform of state tasks and transform the operation of the entire system over two to three years. The organizational setup for preparing the reform evolved in accord with this concept: a large reform committee was headed by the Minister of Finance, with subcommittees dealing with specific issues. A rather small secretariat was set up to organize the work under the direction of Mihály Kupa, who had successfully led the tax reform at the expert level.

Many experts joined in the preparatory work, and studies were drawn up for each government task, as was a schedule for preparing and implementing the reform. By the summer of 1989 the preparations reached a stage in which the government could inform Parliament of its comprehensive concept of public finance reform and its ideas concerning the reform of state tasks. The main principles of the reform concept included the following:

- Substantial reduction of redistribution by the general government
- Creation of a legally regulated democratic procedure for budgetary decisionmaking and operation
- Revision and re-regulation of state tasks
- Ensuring real self-governance at the local government level and for social security, and real independence from service providers, such as the health and education systems

- Preserving the rights of citizens regarding social transfers, except social assistance, which was supposed to decline significantly based on means-testing
- Incorporating market principles into financing certain tasks of the state, such as higher education
- Applying modern financing and planning techniques in operating institutions (zero-base planning, cost-benefit analysis, performance-based financing, performance measuring, etc.)
- Reforming the information system.

Several points of the concept that evolved in 1988-89 are still valid today. Reducing redistribution, revising state tasks, and reforming the information system characterize the whole period under investigation. However, the schedules conceived at the time, especially in 1988, were unrealistic in terms of administrative capacity, knowledge, and political considerations. Surprisingly, despite the complex character of the approach, little was said on the politics of pension reform—now seen as the key to such reforms. The long-term demographic problems had already been recognized, and experts had begun work on reforming the pay-as-you-go system.

Meanwhile the political situation changed from month to month, and Hungary's macroeconomic balance became increasingly unstable. Even though preparatory work on the reform was not canceled or impeded, public finance reform was pushed into the background by other political imperatives. This is shown by the fact that the Committee on Public Finance Reform met only once, but the secretariat of the committee continued organizing work.

Retrospectively, it is obvious that by the summer of 1989, when the concept of reform solidified, changing political conditions made the formerly imagined speed and depth of public finance reform impossible. The government had its hands full with preparing the political transition and trying to develop short-term solutions to the macroeconomic imbalances.

Thus, progress in public finance could only be achieved in certain fields before the summer of 1990. One step was the creation, in the fall of 1989, of a State Audit Office—independent of the government and accountable to Parliament—to supervise public finance. In 1990 the system of financing local councils was transformed in one significant step, and the system of normative grants created. Thus, the creation of the local governments, a political change, came a year before the creation of

the necessary financing system. Another important step was the birth of a pluralist democratically elected Parliament in the spring of 1990 as a preliminary step in political transition. This event lead to new requirements regarding the operation of the budget and political decisionmaking.

The first significant structural change in social security was made in the 1990 budget. Social security became independent of the state budget, provision of family allowances became a duty of the central government, and health service was incorporated into the social security system. Meanwhile the government, reacting to the emerging macroeconomic problems, was able to enforce some restrictions and, by 1990, the general government budget reached a temporary state of balance. Preparing and executing the fiscal reform was left to the new government.

PLENTY OF CHANGES, NONE OF THEM FUNDAMENTAL (1990-94)

The new government confirmed the importance of public finance reform, which it declared a political aim, and proposed agendas in countless fields of politics, society, and economics. The public finance reform was characterized by continuity when it came to the evaluating the situation and deciding on the most important steps to be taken and how they were to be organized. The content of the transition in other fields, such as political institutions and the competitive sector was obvious, but—apart from a few popular slogans—there was little agreement as to how the tasks of the state were to be performed in a modern market economy.

The continuity can be explained by two factors. There were no different, more radical concepts available, thus earlier analyses and the main lines of the concepts developed earlier were reinforced. The other, perhaps not negligible aspect, is that the new government, as it possessed no detailed plans or experts when it was elected, was forced to rely on the experts of the preceding period—all of whom agreed on the shape of public finance reforms. Naturally, significant changes were made in personnel, but the new leaders in economic policy came from the former second and third line.

The demand for comprehensive public finance reform was voiced by the new government after it came to power, but real political will turned out to be lacking. As in 1989, public finance reform was never openly removed from the agenda. In the Ministry of Finance a small fiscal reform unit operated almost continuously, but, partly due to its small size, was capable of dealing with only a limited number of reform issues. The secretariat dealt with reform of budgeting procedure, fiscal legislation, and modernizing the operation of budgetary institutions, while the rest of

the administration performed the usual budgetary work, preparing and carrying out changes that often amounted to reforms.

Studies based on professional research helped the political leadership recognize in 1990-91 that real public finance reform would entail serious restrictions and sacrifices by society. In the fall of 1990, after a drastic and "miscommunicated" rise in the price of gasoline was announced, traffic on the national roads was practically paralyzed by cabdrivers. The government managed to normalize the situation only after prolonged negotiations and significant concessions. Barely a few months after the first freely elected government had come into office this price rise—a measure that theoretically did not touch social sensibilities—led to a public protest that showed that the government's room for maneuver was much more limited than was originally supposed.

After this event, economic policy avoided any step that could provoke a similar reaction. Meanwhile, the external shock caused by the collapse of the Council for Mutual Economic Assistance, the attempts to handle a nearly 20-percent GDP drop in 1991-92, and the full-scale development of the institutional system for a market economy pushed public finance reform into the background. The need to reduce redistribution and deficits and to revise state tasks was still mentioned in economic policy programs, but only in a very general way. Under the "Kupa Program" (named after the new finance minister who came to power after the strike), expenditures were to decrease by 5 to 10 percent of GDP by 1994, and public finance was supposed to regain balance.

Due to economic recession and expenditures based on overly optimistic revenue forecasts, the fiscal deficit reached 2.9 percent of GDP in 1991, and 6.8 percent in 1992. This made it obvious that fiscal reform could not be postponed, and at the beginning of 1993 a new attempt was made to consolidate and rationalize the public finance system. The Committee on Fiscal Rationalization (with a small secretariat) was established to organize the work. The need to reach agreement with international financial institutions also required fiscal stabilization. The committee itself never became functional, but the Ministry of Finance outlined a number of plans on public finance consolidation in the first half of 1993.

These plans were partly based on the same principles as the earlier plans (reduction of deficit and redistribution), but contained new ideas as well:

- Using privatization revenues to reduce the fiscal deficit
- Creating an independent pension system for the public sector

- Means-testing social policies
- Introducing treasury management.

These proposals, however, were not accepted, and the entire program was turned into a classical short-term fiscal restriction package, which, in the end, did not improve the fiscal balance. By 1994, the year of elections, the fiscal deficit reached an unprecedented 8.4 percent of GDP.

Thus, the measures taken during 1990-94 were not based on a coordinated reform program. Instead, they were partly a continuation of the 1988-89 work done on regulating budgeting procedures, and partly connected to preparation of annual budgets and the transformation of the system of political institutions.

Changes in the Institutional System and in Budgetary Regulations

One of the first steps taken by the new government and Parliament was to create a new system of local governments to replace the earlier councils, so that local elections could take place in the fall of 1990. The essence of the new system is that these local governments are legally independent and equal—but this also means that the central budget is not financially accountable for the debts of local governments. As most revenues are realized at the central government level with its large revenue collection systems (personal income tax, value-added tax, customs duties, etc.), most local government revenues come from the central budget.

As of 1990, the earlier system of financing, based on individual bargains, was almost totally replaced by normative regulation of resources. Resources allocated to certain investment decisions, however, still came from the central budget on the basis of individual decisions. This situation was not altered by the Act on Local Taxes, accepted later in 1990; these taxes represented supplementary resources, principally in larger towns, but did not essentially change the system.

The structure of the budget was transformed after 1990 under the demands of the new Parliament, and the budget became significantly more detailed. Finally, in the spring of 1992, Parliament passed the Act on Public Finances, which regulated the division of fiscal responsibilities between the Parliament, the government, and the ministers, and set deadlines for preparing the budget plan, its execution, and final accounting. Furthermore, it provided a framework for the structure and functioning of public finance that served as a basis for detailed regulations to be drawn up. A budget-control organization accountable to the government was created later.

The last major change in the fiscal structure was brought about by the creation of a self-governing social security system with health and pension insurance funds. This system, still one of the most controversial, is based on the principle of self governance, although the central budget is fully responsible for financing social security deficits. Control of social security governance is shared by unions and employer organizations. The government can exert influence only through the Parliament via social security legislation, which still defines the basic principles of health, pension benefits, and social security contributions. This system was characterized by constant tension generated over the budgets of social security fund authorities, permanent excessive deficits, and financial management problems.

A new element in old-age assistance was created in 1993 with the Act on Voluntary Pension Funds. At the time, few attributed any importance to this slowly developing institutional system of pension funds, which began operations following the principles of a private, voluntary, fully funded pension system. Pension reform had been on Parliament's agenda since the beginning of the decade. One of the alternatives presented by the government aimed at developing a mandatory fully funded system. As this model was practically unknown in Hungary, Parliament did not pay much attention. Retirement age was raised at the time, but this decision was rescinded by Parliament before the elections.

After the creation of the new pension funds, a significant part of the citizenry became gradually acquainted with the characteristics of private fully funded systems, and a professional group interested in founding, operating, and managing assets emerged. These two factors proved to be crucial in 1996-97, when Parliament finally accepted the creation of a mandatory fully funded pillar as a part of the pension reform package, after some two years of preparation.

At the beginning of 1990, deficit financing gradually became based on market principles. One of the first steps was adopting the Act on the Central Bank, which created an independent central bank. The budget was still partly financed directly by the central bank, although at market interest rates. By 1993-94 the rest of the deficit was financed by the budget at market conditions from the emerging capital and money markets. Consequently the limits imposed by the size of budgetary deficit and external debt were amply demonstrated by the rise in interest rates in 1994-95, when the budgetary deficit increased significantly. It was no longer possible to counterbalance the intensive accumulation of debts with soft financial help from the central bank.

Partial Reforms on the Expenditure Side

During 1990-91 the expenditures of the consolidated general government temporarily dropped to about 55 percent of GDP, but reached 60 percent by 1993-94, although given the significant decrease of GDP, this number meant a 20-percent real decline in expenditures. Such probably could not have been achieved just by inflating, or mechanically reducing, expenditures.

Producer and consumer subsidies in the central government budget were significantly reduced in this period. These price-distorting subsidy systems went against the logic of the newly developing market economy. High inflation made it possible to get rid of most of these expenditures in 1990-91 without major social shock. As a result of the economic recession, subsidy elimination and the introduction of a tough bankruptcy law unique in ex-socialist countries, a wave of bankruptcies swept through the economy. This was the principal motivation behind the bank and enterprise consolidation, which meant indirect fiscal assistance. This did not affect the scale of the deficit, but caused a significant increase in public debt. Thus, hidden losses, formerly a burden of the state, manifested themselves visibly in public finance, and the majority of subsidies, including indirect ones, were cut down only after 1993-94, when expenditure restrictions took place in the budgetary institutions, especially defense. Public investment expenditures also dropped, putting an end to large uneconomic state investments.

Establishing an institutional system for managing unemployment also amounted to a reform, even though financially it meant further fiscal expenditures. Unemployment, as such, was theoretically non-existent in Hungary even in the second half of the 1980s, and the notion of unemployment benefits was unheard of. The rate of unemployment, however, grew from zero to 12 percent within a few years, which made the development of a financial assistance system necessary.

The 1993 adoption of laws regulating the legal status of public employees was also a significant change. The development of a fixed-wage system, modeled on Western systems, exerted a significant influence on public finance. The system, characterized by centrally set parameters, became one of the most important factors in the yearly budgetary bargains. On the one hand, this system could play a stabilizing role for those working in the public sphere, but on the other, too-intensive wage growth could be dangerous for fiscal equilibrium.

This period was characterized by a 20-percent real drop in expenditures. Despite this, a decline in GDP meant that the share of fiscal ex-

penditures hardly fell. Central budget debt increased from 66 percent in 1990 to more than 80 percent, and the threat of a vicious circle of debt loomed. Significant changes were made in some expenditure categories (producer and consumer subsidies, investments, and defense), but reform of the large redistributive systems financing human services could not be accomplished. Importantly, though, budgetary procedures characteristic of modern democracies and a system of local governments, with independent tasks and financial authority, were created. The creation of self-governing social security funds, however, originated long-term tensions that have not yet been resolved.

REFORMS AND DEEP CUTS (1994-97)

When the new government came into office in 1994, the general government deficit (without privatization revenues) rose to 8.4 percent of GDP, expenditures to 61 percent of GDP, and the debts of the central budget rose above 85 percent. Fiscal reform obviously was more necessary than ever. Simultaneously, the deterioration of external balances was becoming more and more serious. In 1993 and 1994, deficits on the current account reached record heights.

In mid-1994, however, these facts were not so self-evident, and some leading politicians hoped that the new social-liberal coalition could manage the macroeconomic disequilibria without imposing serious restrictions. The government program was controversial in many respects, as it proposed quality improvements in every field, while acknowledging the necessity of reducing redistribution and deficits. The new coalition did not put forward a detailed program that could be accepted by Parliament. The lack of sufficient time also impeded such initiatives when the annual budget for 1995 was prepared.

It should be recognized that the new coalition had high hopes of a social and economic agreement with the employers and unions. This seemed a viable plan, as the socialists had a close alliance with the unions. However, the agreement was not realized. The local elections in the fall of 1994 contributed to the omission of sensitive issues from the agenda, and the 1995 budget could not move toward public finance reform. At the end of the parliamentary debate, even the Minister of Finance stated a budgetary adjustment would probably be needed later in the year.

In December 1994, the government created a reform committee under the direction of the Minister of Finance and included, beside mem-

bers of the government, representatives of scientific research, unions, employer organizations, and even the political opposition. A small secretariat was created to organize the work, while subcommittees of experts were asked to draw up plans for pension reform and establishing a treasury. No radical new aims were voiced. In addition to reducing deficits and redistribution, a comprehensive reform of the large redistributive systems was planned.

At the end of 1994, Hungary's financial difficulties intensified. The crisis in Mexico increased distrust toward Hungary and it became more and more evident, even outside professional circles, that the deficits on the current account and general government could not be sustained much longer. Expectations of a devaluation and speculation against the forint became constant. Under these circumstances, the government accepted the stabilization package named after Lajos Bokros, the recently appointed Minister of Finance, on March 12, 1995. The new stabilization measures brought about a decisive turn in economic policies and the entire process of public finance reform.

The deficit on the current account was successfully reduced. Real progress was made on such structural issues as privatization. The investment-rating agencies have since continuously upgraded Hungary, and its increased stability is demonstrated by plans to begin European Union (EU) accession negotiations this year (1998).

Hungary's public finance system was radically transformed during 1995-97 after the stabilization induced by fiscal reform. The ratio of general government expenditures dropped from 61 percent of GDP in 1994 to 50 percent in 1997, despite increases in interest payments. Primary expenditures on state tasks were reduced by 15 percentage points by 1997. The primary balance of the budget reached a 4.4-percent surplus of GDP—from -2.7 percent— in 1996, while the total deficit dropped from 8.4 to 3.2 percent. The budgetary debt, as a result of these achievements, dropped from more than 85 to 65 percent of GDP by 1997, and could be below 60 percent by the end of 1998.

The stabilization brought a change in political conditions as well. Practically every detail of the package was disputed by those adversely affected by it. There were demonstrations against certain measures of lesser significance, but the need for stabilization was not really questioned. Measures constituting the basis of the program, such as one-step devaluation, introduction of the crawling-peg and import surcharge, and decreases in real wages, did not evoke effective protests. Society and its interest groups were resigned to the demands of the austerity measures.

Furthermore, the package was introduced without warning, and interest groups and unions could not react quickly to such things as the sudden jump in inflation.

The concept of reform changed during this period as it became clear that priorities would have to be set and the process phased in. Until mid-1966, planning covered all aspects of public finance. By then, however, it became clear that there was no time to take real steps on reform measures that had not reached a certain phase before the elections, and the government's limited resources were better concentrated on the most important issues. This change in approach was demonstrated by the fact that the transformations of local governments and the health service were pushed into the background, while the pace of pension reform, development of tax administration, transformation of social security contributions, and the development of a more efficient information system, increased. A summary of the most important changes is presented in the section below.

Conceptual Changes in Budgetary Policy

The first, very important, change was the universal acceptance of approaching the budget from the point of view of the general government. In other words, the desirable level of the deficit, redistribution, and primary balance came to be defined on the basis of the connections between economic policies and the entire general government. Some public finance subsystems had been separated to such a degree that the most important fiscal indicators (for example, general government deficit, primary balance, expenditure rates) did not even appear in budget documents before 1992-93. By 1995 it became accepted that the entire system of general government was at the center of fiscal policy, and deficits in a fiscal subsystem, usually in social security, had to be balanced by savings elsewhere.

The second significant change was that, since 1995, privatization revenues have not been included in the budget when deficits are calculated and fiscal policy is communicated; the general government would have had a surplus in 1996 if privatization revenues were included. Significant privatization revenues were realized in Hungary during this period, and there was a major pressure to spend them on current expenditures. It was finally accepted, however, that long-term expenditure obligations could not be based on one-time revenues, because after privatization is completed in 1998-99, those revenues will fall sharply and no longer be available for financing the general government.

The third factor is that, previously, the state tended to solve problems by off-budget means that did not show up as a deficit, thereby giving the appearance to "save" on current expenditures. This, however, led to direct increases in public debt. The effect of these measures—increasing the public debt—was identical in an economic sense to increasing the deficit (László 1994). The application of such off-budget measures was limited by the 1995 amendment of the Act on Public Finances, and since then, off-budget liabilities have to be counted in when the deficits are calculated.

Finally, since 1995, planning of the most important macroeconomic and budgetary indicators has taken place in advance within a multi-year budget plan. Since 1997, detailed appropriation forecasting for the entire general government must be based on a three-year planning system. In the pension system, expected revenues and expenditures will have to be forecast several decades ahead from 1998 on.

These changes all point in the direction of centralizing budgetary procedures and a more disciplined fiscal policy. This coincides with the experience of most countries of the Organisation for Economic Co-operation and Development (OECD). Budgetary discipline is increasingly enforced by legal means, such as the Maastricht criteria in the EU and legal limits on budget deficits in the United States. Recent analyses have demonstrated that a strong and centralized budgetary system tends to induce a stricter and more cost-efficient budget policy, which is one of the long-term preconditions of sustainable economic growth (von Hagen and Harden 1996; Tanzi and Schuknecht 1995).

The Institutional System of Public Finance

The greatest progress in public finance reform was perhaps made in the institutional system. The fiscal structure was, first, greatly simplified and some 30 extra-budgetary funds were cut down to 5, making this public finance subsystem more transparent and controllable.

In 1995 Parliament passed the Act on Public Procurement, which regulates all major purchases by the general government, creating a system that was cheaper, as well as more transparent and controllable. While there are no supporting data, the Act on Public Procurement probably also helped some institutions pay for materials and services despite appropriations reduced by budgetary restrictions.

The greatest institutional change came with the creation of the Hungarian State Treasury in 1996, the first among ex-socialist countries.

Creating and developing the Treasury allowed the financial management of the entire central government to be finally centralized. This made debt and cash management more effective, and the flow of information about budgetary processes quicker, more exact, and more detailed. Through the Treasury, the so-called net financing of local governments could be introduced. This means that appropriations for paying public burdens are not transferred from the central government to local governments, thus local governments cannot accumulate debts toward the central budget and social security. The reduction of money flow resulted in significant interest savings.

A new organization for debt management, the State Debt Management Agency (ÁKK), was developed and incorporated into Treasury and, with its assistance, a primary dealer system was created and market techniques of financing were introduced. Since mid-1995, Hungary's entire public-borrowing needs have been met from the capital market through ÁKK. Since 1997, it has used only auction techniques. As a result, a market for government securities has been built from practically nothing. Interest rates, above 30 percent in mid-1995, dropped to less than 18 percent in mid-1998, and the terms of government securities have been significantly extended—from a maximum of one year in 1995 to up to five years today.

The transfer of public debt from the Hungarian National Bank to the central budget, and the modification of the Act on the Central Bank reached well beyond their focus on managing the public debt. In the 1970s and 1980s the budget was directly financed by the central bank, mostly by foreign borrowing. The role of the central bank in directly financing budgetary deficits was reduced in the 1990s. The accumulated external debt still appeared in the books of the National Bank of Hungary, and the encumbrances were traced to the budget in a complicated and non-transparent way, though it was obvious that the external debts on the books of National Bank were liabilities of the central government. In January 1997 the budget took over the net foreign debt of the National Bank of Hungary up to the level of central government debt owed the central bank so that the burden of the external debt appeared transparently and directly in the budget. The independence of the central bank was also significantly reinforced. Apart from providing temporary liquidation loans, direct central bank financing of any subsystems of general government was banned. Since mid-1995 the central budget has not used short-term liquidity loans with maturities below one month.

Social Insurance and Social Policy

The most important sector for the long-term affordability of public finance is social policy, especially the reform of the social security system. The transformation of family allowances to a means-tested system was included in the stabilization package and was so much debated that the Minister of Welfare resigned on the day of the government's decision. The former system of maternity and childcare benefits—in which mothers received a certain percent of their earlier salaries independently of the family's financial situation until children reached a certain age—was abolished and replaced by a means-tested linear system. Under the new system, family entitlements for families with one or two children depend on per-capita incomes.

The largest savings came from structural reforms in sick-pay benefits. The former exceptionally liberal system resulted in countless abuses, and neither employers nor employees were interested in checking unauthorized use of benefits. By shifting a portion of the financial responsibility for benefits to employers, and limiting the recourse of pensioners who continue working, the real value of sick-pay expenditure dropped by two thirds.

Transforming the biggest social welfare subsystem, the pension system, is another key reform. By the mid-1990s it was evident that the pension system could not be financed without reforms and restrictions, although social security contributions were extremely high. The excessive level of these contributions raised labor costs, damaging the competitiveness of the economy. An unclear relationship between contribution rates and pensions also led to a tendency to evade payment. There was much collusion between employers and employees to pay only minimum wages. Expenditure levels were high due to exceptionally low retirement ages (60 for men, 55 for women until 1996), and the easy availability of early retirement. The pension system was also used to partially solve the employment problems of the past few years. Thus, even though the age-dependency ratio reflecting demographic structure is not worse than in Western European countries, the system dependency ratio—the ratio of contributing payers to pensioners—is among the worst. In 1996, 39 percent of workers were above retirement age; 67.1 percent were drawing pensions.

After prolonged study and debate, the pension system was reformed in two steps. The first, austerity measures, was accepted by Parliament in 1996. Retirement age was to gradually be raised to 62 years (for both

men and women) by 2009, and other conditions of retirement, such as required service years, became stricter. The second step, amounting to a real reform, and the most important facet of fiscal reform, was the creation of a three-pillar pension system after 1998, which was accepted by Parliament in the summer of 1997. The first pillar is a modernized pay-as-you-go system, which gradually strengthens the relation between contributions and benefits. The second consists of fully funded privately managed defined-contribution pension funds, which are mandatory for new labor market entrants and voluntary for other age groups. The ratio of the two pillars is expected to be about 2:1 over the long run. The third pillar—voluntary pension funds—is already functioning and gradually expanding.

The annual deficit in the social security system under this plan is estimated at less than 1 percent of GDP, and will be funded by transfers from the central budget to the social security system. This pension reform will be among the first, not only in Eastern Europe, but on the whole continent, to provide a new answer to the long-term financing crisis of pension systems.

Budgetary Institutions

During 1990-95, about 1.5 million jobs were eliminated in the non-government sector, while the number of those employed in the public sector did not change. Reorganizations were made in the budgetary institutions at the beginning of the decade, but it was possible to spin off only a few important functions, such as public media and road maintenance. In 1995 reductions in the number of people employed in budgetary institutions began (table 5.2), accompanied by incentives. Employment fell by 4 to 5 percent compared to 1994. One of the key conditions of the long-run sustainability of the general government is reducing the number of employees. The other major change, to convert into numbers, but perceptible almost everywhere, is that the institutions facing budgetary restrictions endeavor to discover their internal reserves and take steps leading to savings. These relatively small steps can bring significant changes across government.

Local Governments

In 1995 the government was still considering a comprehensive fiscal reform aimed at restructuring the tasks of local governments. By the end of 1996 it became obvious that only smaller modifications were feasible due to political, technical, and time constraints, and that the choice of stabilization measures to establish financial stability and prevent indebtedness was extremely important.

Table 5.2 ***Employment in Budgetary Institutions***

Year	Central government budgetary institutions	Local government budgetary institutions	Total (persons)	Volume index (previous year = 100)
1992	323,995	563,610	887,605	
1993	335,191	577,878	913,069	102.9
1994	330,367	573,399	903,706	99.0
1995	313,948	566,059	880,007	97.4
1996	290,100	546,900	837,000	95.1
1997	280,500	533,500[a] (505,800)[b]	814,000[a] (786,300)[b]	97.3 (93.9)

a. Including workers employed in communal works. Data from the previous period are not available.
b. Excluding workers employed in communal works.
Source: Central Statistical Office.

There were three major initiatives. First, the introduction of net financing, already mentioned. Second, passing the Act on Bankruptcy of Local Governments, which forced debtors to realize that credit extended to local governments involved an identical, if not greater, risk as credit extended to enterprises, as the central budget would not guarantee their debt. The same law obliges local governments to use all their assets, except those necessary for basic functions, such as education, to pay debtors. Third, borrowing by local governments was limited under a legally specified formula that links debt service to their own revenues.

These steps improved local government financial positions, reduced their debt, and increased their deposits. Though some of these changes came from local government privatization revenues, measures aimed at imposing hard budget constraints can be pronounced successful. Despite the restrictions, the local government sector was not forced into unmanageable financial difficulties, as it adapted to the increasingly difficult circumstances through small local stabilization packages. At the same time, it must be understood, certain sector and wage regulations increased their burdens, which reduced the real value of appropriations for renovations and material expenditures. These often resulted in depletion of wealth and declining quality of the services provided by local budgetary institutions.

The reform steps and measures outlined above were all prepared by the Ministry of Finance. Since the early 1980s there has been constant debate as to whether responsibility for reform should fall on individual ministries, the entire government, or the Ministry of Finance. It is evident

that in most fields, the role of the responsible ministries must be decisive to ensure the necessary professional background and the opportunity for consensus. As part of the financial stabilization of 1995-96, this was clearly not the case.

IT IS NOT OVER YET (1998-?)

Hungary's first and most important task is to stabilize the reform steps that have already been taken. In the past two or three years many restrictions were imposed—such as limits on public-sector wages—and there is great pressure to restore the former level of fiscal expenditures. Structural reforms decrease the chances of reversal but do not completely eliminate it. Time bombs can still be found in public finance. Despite fiscal and other restrictions, the recession that is the usual consequence of such stabilizations did not take place in Hungary (Kornai 1996). This can be traced to the nature of the adjustment structure, a question that has been investigated by many authors (Alesina and Perotti 1996; McDermott and Wescott 1996). Improving the fiscal balance was partially based on temporary import surcharges, but the permanent adjustment steps concerned the expenditure side; on the revenue side revenues could be increased by strengthening tax control. On the expenditure side the focus was on public wages and social transfers, and reductions could prove permanent, increasing the credibility of the adjustment, diminishing recessional influences, and promoting sustainable high growth—which could facilitate the realization of the steps still to be taken.

The most important remaining field is, perhaps, health services, whose structure was barely altered, despite reducing the number of hospital beds. Spending increases for pharmaceutical subsidies and disability pensions could not be stopped. The authority and regulation of social security also will have to be further transformed, and the exact nature of responsibilities clarified. As an integral part of the transformation, efficiency in collecting public taxes will have to be improved at the level of the central budget, cooperation between the responsible institutions strengthened, and the integration of social security contributions and government tax control seriously investigated.

Revenues have not played a large role in this study. However, the high ratio of tax and contribution evasion caused by the excessive taxes and contributions is one of the principal problems facing Hungarian public finance, despite the countless measures of the past few years. It provides an unfair competitive advantage to a certain group of entrepre-

neurs, while the competitiveness of honest taxpayers, mostly in the tradable sector, is damaged by excessive taxes. Improving this situation by any possible means should be a priority.

CONCLUSION

The history of public finance reform demonstrates that comprehensive reform of a complicated system redistributing 60 percent of the GDP cannot be realized in one or two years in a modern democracy. Huge systems, for example, pensions, can be transformed only gradually. Lack of speed must not be confused with lack of political will, or a lack of human and financial resources, as was often the case in the past 10 years. The period 1995-97 must be seen as successful, despite the fact that in certain fields progress was less than what had been hoped for. The public administration, the political leadership, and, especially, society possess a certain absorptive capacity for change that can be increased under exceptional external pressure, but cannot be amplified permanently and without limits.

It would be easy to blame only the politicians for all the failures of the past decade. Even those responsible for the reform had to go through the process of learning. Access to foreign study trips and the aid of foreign experts increased significantly in the 1990s, and the apparatus was a lot more prepared from the professional point of view by 1995.

The most important precondition of budgetary adjustment is political will. Without it, there is only quasi-reform, and never-ending committee meetings that lead nowhere. Political leadership in modern democracies abhors painful measures that can lead to damaging political consequences. Therefore, a centralized budgetary policy, supported by legal means, is the precondition for a permanently strict fiscal policy. In addition, external pressures are often needed to carry out serious budgetary adjustments, so that even the negative political consequences of a strict fiscal policy seem a better political alternative. The wish to evade an external insolvency crisis and regain the credibility of economic policy may induce politicians to make deep cuts and introduce restrictions. This happened in Hungary in 1995. A compulsion to act took the place of the earlier search for consensus.

Is it possible to support reforms on such a scale with social consensus? Such is feasible only under very stable political circumstances, and must be based on the professional objectivity of different interest organizations, which would have to renounce their private interests. These con-

ditions are rare, however, in Eastern Europe and elsewhere. The often-mentioned examples of Ireland, the Netherlands, and New Zealand are rooted in a competitiveness crisis that enforced reforms based on general social consensus.

Another conclusion is that under the pressure of budgetary bargaining the parties concerned often tend to undertake extra obligations for the medium term in exchange for immediate compromises. But all promises catch up with the budget sooner or later, and can be satisfied only with major efforts. In some cases, earlier promises could be broken only at the cost of serious political losses. Long-term promises, thus, require very cautious consideration.

Another lesson worth reflecting on is that in certain political situations it is easier to reduce social transfers covering millions than to transform institutions at the cost of entrenched interest groups. The major subsidy reductions at the beginning of the 1990s and the fall of real wages in 1995 were much more important from the macroeconomic point of view than the disadvantages suffered by certain interest groups. While protests against large lump-sum cuts caused by inflation cannot be effectively carried out, attempts to close down a small hospital usually meet incredible resistance—and fail. Reform is often forced to go in the direction of least resistance, and hence cannot result in optimal solutions. It is hardly a coincidence, then, that the smallest changes took place in two large human-service-provider systems—health service and education.

The organization of reform work, including a clear definition of authority, is very important. In an emergency, when it is less possible to seek consensus, it is more efficient to entrust preparation of the reform to a centralized institution devoted to the reform and able to keep in sight the global interests of the government. In Hungary, this condition was met only by the Ministry of Finance. The creation of an institution directly dependent on the government might be an alternative. Providing the extra resources required by a new institution would be worthwhile only if substantially broader political support could be secured.

The responsible ministries could come more into prominence in more peaceful periods, but an adequate political background and regulation of the principles by the government cannot be dispensed with even then. It is also evident that the more the evaluation of the issues in a field depends on specialized knowledge, the more reform measures should depend on the responsible ministry.

Inflation also played a decisive role in the quick and huge reduction of the real value of expenditures in Hungarian public finance. Had inflation been small, it would have been impossible to carry out the nominal reduction in public wages that restored the same real position. The significant rearrangement of the structure of the budget was definitely facilitated by inflation. It is not accidental that EU members face difficulties in achieving the criteria of Maastricht, and especially in reducing their budgetary deficits. With insignificant inflation and low economic growth, this requires a nominal reduction in the majority of expenditures; as with wages, the majority of budgetary expenditures is nominally downward inflexible.

Inflation is, however, a very dangerous drug that requires caution. It can have serious side effects even in the short run. In countries with large internal and external debts and high interest rates, inflation can result in an explosive growth of interest rates—and consequently the whole deficit—destroying the credibility of otherwise valuable adjustment programs (Guidotti and Kumar 1991). In the long run, the credibility and sustainability of the entire economic policy becomes disputable, and finally, high inflation makes economic development its victim. One of the keys to keeping inflation in check is reducing the budget deficit (Dornbusch 1992). Even though its deliberate use to adjust the budget is alluring, ostensibly easier and politically less damaging, inflation is a double-edged sword. The effect of inflation on the different layers of society also must be taken into consideration. The losers in inflation are usually the poorer classes.

Budgetary restrictions similar to the Hungarian ones usually imply lump-sum cuts, which threaten service provision in certain fields. But whether restrictions are mistaken becomes evident only later. Usually in this moment everyone concentrates on "trying to extinguish the fire," a phenomenon well known in socialist-planned economies (Kornai 1980). This problem manifested itself in 1996, but the process will probably go on for another two or three years. In the long run, however, budgetary planning identifying and ensuring the resources needed to meet tasks is crucial. Nonetheless, infallible techniques for such planning will probably not be available for a long time to come.

Budgetary restriction and communicating the reforms to society's interest groups were the most critical issues in the past two or three years, especially in 1995. Today it hardly can be disputed that communication should have been more emphasized, even if those responsible for reform were too busy at the time to have energy left for such tasks. Utili-

zation of more indirect forms of communication—such as using public relations firms—is not yet common in the civil service. It first occurred in 1997, with the objective of divulging information on the pension system.

The other side of the coin is that the most influential electronic media cannot—and are unwilling to—provide space for complicated, professional, and long arguments to explain such measures. And budgetary restrictions are hard to popularize through nice snappy slogans like detergent or toothpaste. "Considering that political and social issues are very complicated and complex, we could hope that the speech of politicians would be more reminiscent of the Protagoran ideal than of commercials. Unfortunately, the structure of modern mass communication does not facilitate this expectation. Arguments and counter-arguments can hardly be presented in 30-second political commercials and in the short summaries of television news" (Aronson and Pratkanis 1992). Despite these obstacles, greater attention ought to have been given to trying to convince society of the rightness of the reform goals.

Finally, it must be asked if these achievements are permanently sustainable, and how far one can go in deconstructing the state. Tanzi's analysis amply demonstrated that the welfare of a society does not depend on the size of the state (Tanzi 1995). Obviously, there is a minimum of state tasks in a modern society that cannot be given up without grave social losses. Above this minimum countries follow various models, but it is clear that an overdeveloped state threatens economic growth. There are still state functions that should be deconstructed in Hungary.

As for the sustainability of the achievements, the future holds the answer, but hopefully enough structural reforms have been made. A phase of growth is probably approaching that will not demand new social sacrifices to further reduce the ratio of expenditures and deficits to GDP.

Hungarian society has made serious sacrifices for the sake of stabilization in recent years. This cannot be repeated many times. These sacrifices must not be rendered futile by allowing budgetary policy to loosen again. In the coming years, Hungary will prepare for accession to the EU. This process could be indefinitely postponed if the macroeconomic tensions of the past decades reappeared. Risking such a postponement cannot be afforded.

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6 Hungary's Public Finances in an International Context

Luca Barbone and Rossana Polastri

This chapter provides some evidence on the sustainability of Hungary's public finances based on an empirical analysis of determinants of the size of the state. It begins by analyzing developments in expenditure and revenue aggregates, and fiscal balances, in all formerly socialist economies. The central thesis is that the fiscal crises typically associated with the onset of economic transformation were attributable—in Hungary and in most other reforming ex-socialist economies—to the changes in their economic systems and the societal response mechanisms put in place to address these structural transformations, rather than to "conventional" deficiencies in policies, or the effect of the business cycle. This point is elaborated in the first section. The second section examines in greater detail Hungarian public finance's position relative to the rest of the world, utilizing estimates of a model of public-expenditure determinants that accounts for societal choices as well as structural characteristics of the economies under study. The final section investigates the issue of the sustainability of the size of the state, and finds that the Hungarian government's recent drive to substantially reduce its government is well warranted.

Economic Transition and the Fiscal Accounts

Hungary's post-liberalization fiscal predicament is best understood in light of the experience of other countries' post-socialist reforming economies. These countries[1] all undertook fundamental pricing and ownership reforms (albeit at widely different paces and using a variety of methods), and all went through cycles of sharp recession followed, in most cases, by private-sector-induced economic recoveries (although, here too, individual county experiences are widely divergent).[2] A central feature of the liberalization packages was a set of policies intended to affect the fiscal accounts. These ranged from the abolition—or sharp reduction—of subsidies to loss-making enterprises and the population at large, to tax and budget-management-system reforms, to curtailment of the use of extra-budgetary funds (Tanzi 1993). But by and large, the swings in the fiscal accounts in the first few years after the onset of liberalization—that, in many cases, led to profound financial crises—were the

result of more indirect and deep-seated influences sparked by the changes in economic systems.

Fiscal crises were rare in socialist economies (in fact, most of the recorded crises over the past generation were the result of external shocks). There was no role for capitalist-style fiscal policy as a tool of macroeconomic management. Fiscal accounts in the socialist economies were ancillary to the plan and the underlying "material transactions" that accompanied the plan's annual execution. With few exceptions, the fiscal accounts were intended to be balanced, representing just the financial counterparts to the "real" transactions taking place under the plan.[3]

Governments were large by international standards, although for reasons that differed from those applicable to capitalist economies. Given the widespread social ownership of productive assets, the very definition of the government was difficult to pin down (and statistics were correspondingly inadequate to the task). In order to reconstruct a notion of the size of the state (intended here as general government, in the International Monetary Fund [IMF] definition, the system of state-owned enterprises needs to be excluded except for the current and capital subsidies emanating from the budget or extra-budgetary resources). When this is done, it is apparent that socialist economies were situated in the neighborhood of the advanced countries of the Organisation for Economic Cooperation and Development (OECD), and substantially above countries with similar per-capita incomes. During 1988-89, recorded consolidated general government expenditures (or some equivalent approximation) averaged some 53 percent of gross domestic product (GDP), ranging from a high of 67 for Mongolia to 40 percent of GDP for Romania and the former Yugoslavia. This compares with an average OECD expenditure of 51 percent of GDP (55 percent for the Western European countries)[4] for the same period. Hungary, as discussed in greater detail in the next section, had one of the largest "governments," at about 60 percent of GDP in the late 1980s.

The composition of revenues and expenditures was remarkably peculiar, however. Eastern European and the former Soviet countries recorded large government expenditures on both economic and non-economic sectors—on subsidies and transfers, education, and health care. The main difference between capitalist and socialist budgets was to be found in the large size of subsidies, both to enterprises and to the population. These averaged some 15 percent of GDP, ranging from the high of 20 percent for Czechoslovakia to a moderate 4 percent for Yugoslavia.[5] Hungary, with subsidies of some 12 to 13 percent of GDP before the start of the reforms of the early 1990s, was representative of the pat-

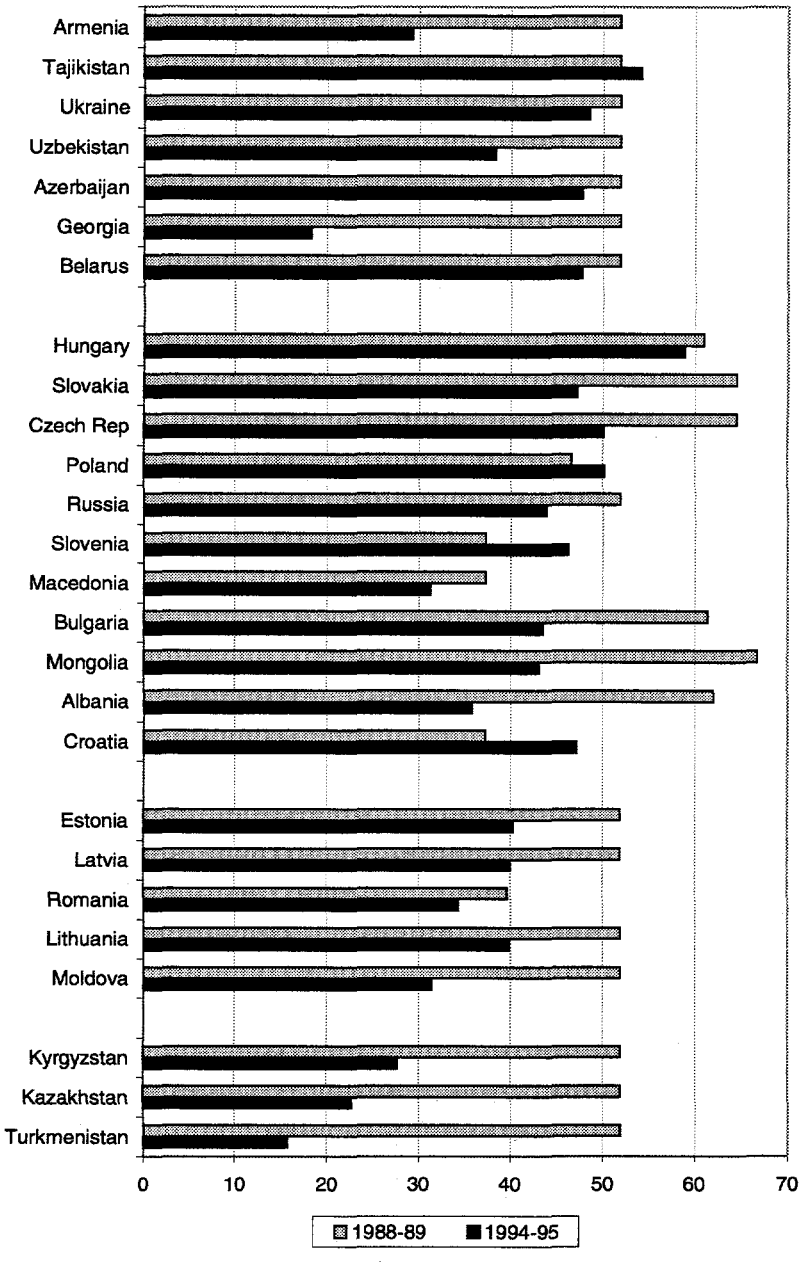
tern. The high subsidy ratios went hand-in-glove with high revenue ratios, partly as a result of the duplications created by the distorted set of relative prices typical of socialist economies (Barbone and Marchetti 1995). This engendered high profitability, and therefore high profit taxes, for a number of "favored" sectors, which was, however, counterbalanced by large losses in some sectors and the required subsidies from the budget. With the advent of economic liberalization and market-based pricing, much of this "duplication" disappeared, and both sides of the government budget's income statement were scaled down, as discussed below.

Before transition, most of the socialist countries had already developed social safety-net systems, generally comprising a pay-as-you-go pension scheme, sick pay, generous maternity benefits and family allowances, retraining/labor funds, and specific welfare schemes. Social security and other transfers to the population usually absorbed some 25 percent of expenditure (including in Hungary). These did not include unemployment benefits, as unemployment, with the exception of Yugoslavia, was by definition non-existent. As in Western European countries, however, large transfers were assigned to the provision of pensions.[6] Government expenditure on pensions ranged from about 6 percent of GDP in the former Soviet Union, where pensions were conditioned by previous employment, to more than 9 percent of GDP in Hungary, which also had a rather generous system of other social benefits, discussed elsewhere in this book. Importantly, the social benefit systems were set in ways that allowed for rapid expansion of beneficiaries and outlays.[7]

Capital formation was also generally higher than in OECD countries, although government expenditure data may often have reflected fuzzy accounting procedures in the statistics of many socialist economies.[8] Hungary maintained investment ratios of over 7 percent of GDP. Finally, in a number of countries, large military expenditures contributed to high overall spending levels. For instance, it was estimated that at the end of the 1980s, military expenditures in the Soviet Union budget amounted to more than 7 percent of GDP.[9]

Spending ratios changed drastically in a number of ex-socialist economies after the onset of economic liberalization (figure 6.1). Between 1988-89 and 1994-95, average general government expenditure declined from 53 to 36 percent of GDP. Out of our sample of 26 transition countries, 22 decreased their total expenditure ratios. The reduction was limited in some (for example, in Russia or Uzbekistan it was about 3 percent of GDP), but very drastic in others, such as Kazakhstan and

Figure 6.1 ***Change in General Government Expenditures in Transition Economies*** **(percentage of GDP)**



Source: World Bank (1996).

Turkmenistan, where the size of government expenditure has shrunk by more than 30 percent of GDP (and where, as will be discussed later, the decline in expenditure was accompanied by swelling government arrears in pensions and other assigned benefits). On the other hand, eight countries expanded their governments. In 1993-94, for instance, government expenditure in Macedonia and Slovenia surpassed the 1988 average of the former Yugoslav government by more than 7 and 9 percent of GDP, respectively. Hungary was also one of the few countries that appeared to have, prior to the fiscal measures of 1995, bucked the trend toward a reduction of the state: as of 1994, expenditures were somewhat higher than at the beginning of the economic transformation.

A Typology of Changing Expenditure Patterns

This section attempts to assess the sustainability of the post-transformation revenue and expenditure levels. First, it is useful to offer a short digression on the factors underlying the sharp changes observed during the period under consideration. With such a wide sample of countries, with differing degrees of development, political change, and resources, it is impossible to propose a uniform explanation. And there has indeed been considerable debate on the matter, starting from the initial gradualism versus big bang controversy, and extending all the way to Dabrowski's six-way classification of patterns of reform (Dabrowski 1997). Regarding, more specifically, changes in budgetary aggregates, Barbone and Polackova (1996) have argued that the changing patterns reflect degrees of success in reforming the economic role of government as much as a lack of restructuring in its social-security responsibilities, together with the drastic fall in government revenues that was experienced, in different degrees, by all these economies. They offer a fourfold classification of changes in public expenditure, based on an assessment of their reforms of major spending programs, particularly those that proxy the level of government economic intervention and the role of government in the social and welfare sectors (table 6.1).

The first two groups include countries in which changes in government expenditures may have been led mainly by *social demand*, albeit with sharply differing characteristics. The range of countries in which social demand has proven the main determinant of government expenditure is broad and goes from those perceived as the leaders of transition (for example, Hungary and Poland), to countries that became common targets of criticism for lack of reforms (for example, Uzbekistan and Ukraine).

Table 6.1 ***Classification of Former Socialist Economies by Spending Patterns and Average General Government Expenditure and Revenue, 1994-95*** **(percentage of GDP)**

Item	*Group 1*[a]	*Group 2*[b]	*Group 3*[c]	*Group 4*[d]
Average general government expenditure	40.6	45.2	37.2	22.0
Average general government revenue	31.2	43.2	33.8	16.8
Expenditure on pensions	8.5	9.9	6.7	2.4
Expenditure on enterprise subsidies	4.9	2.7	1.4	2.9

a. Armenia, Tajikistan, Ukraine, Uzbekistan, Azerbaijan, Georgia, and Belarus.
b. Hungary, Slovakia, Czech Republic, Poland, Russia, Slovenia, Macedonia, Bulgaria, Mongolia, Albania, and Croatia.
c. Estonia, Latvia, Romania, Lithuania, and Moldova.
d. Kyrgyz Republic, Kazakhstan, and Turkmenistan.
Source: Barbone and Polackova (1996).

The common feature of these countries is that their governments remained the major, if not the sole, entities responsible for accommodating demands for social protection. They inherited many of the social welfare functions that had previously been confined to the state enterprise sector, but have been unable to promote significant private sector involvement in these areas. Despite the room for maneuver created by the sharp reduction in subsidies, the increase in social expenditures partially (or in many cases more than fully) counterbalanced the possibility of reducing overall expenditures. As a result, the size of the state remains large. With per-capita incomes near those of middle-income developing countries, these transition countries would, thus, seem outliers in the traditional positive correlation between the per-capita GDP and the GDP share of government expenditure. A close look at Hungary's expenditure patterns reveals that the reduction of some 5 to 6 percent of GDP on direct production subsidies was almost entirely compensated for by increases in social outlays, by more than 4 percent of GDP.[10]

Other countries, however, not only resisted the temptation to provide generous social security and welfare benefits, but also forcefully moved toward new, fully funded, pension schemes, enhanced their social security administrations, and reduced the scope of abuse of welfare benefits. In Estonia, Latvia, and Lithuania, governments significantly liberalized the economies, almost eliminated enterprise subsidies, and reduced their responsibilities in the social sector. Although net-lending figures may suggest that many enterprises in the Baltics have not entirely become subject to hard budget constraints, recent progress in privatization may

address this issue. Compared to the countries in the previous two groups, it is possible to suggest that, here, *government reform priorities*, rather than social demand, took the lead in determining the dynamics of expenditure. On the other hand, cuts undertaken by these governments in health care, or public investment, or (with the exception of Latvia) in education, have not been fully counterbalanced by new services in the private sector. Thus, when tax revenues permit, governments might find themselves under pressure to pay for some of the current gaps. Nevertheless, as discussed in the next section, expenditure levels in these countries appear at, or under, the values predicted by structural models of government expenditures, suggesting that they might be converging to the spending ratios of middle-income, rather than Western European, countries.

With little progress in either economic liberalization or social expenditure reforms, the governments of Kazakhstan, the Kyrgyz Republic, and Turkmenistan resemble their counterparts in Group 1, except for drastically lower levels of general government expenditures. But closer examination reveals that the large drop in their public expenditure, so far, has been driven only by the *financial constraint*. With the exception of the Kyrgyz Republic, enterprise subsidies still account for a relatively high proportion of the government budget and the reduction in social expenditure may well be transitory, lasting only as long as it is virtually impossible for their governments to collect more revenues or credit. Since the governments have been facing increasing arrears in pensions, and underspending on investment and maintenance while allowing very little room for private-sector development, government spending may be bound to rise as soon as recourse becomes available.[11] Thus, it is not clear whether social demand or new reform priorities will take the lead in determining future government spending. When they finally emerge from recession, these countries might face the trap of falling back into their "traditional" high spending ratios. Compared to the first two groups of countries, however, the pressure on the governments to privatize and contract out social services is much greater, and, paradoxically, may be to these countries' long-term advantage.

THE SIZE OF THE STATE IN HUNGARY: PUBLIC CHOICE OR UNFINISHED STRUCTURAL REFORM?

The international comparisons of the previous section, which place Hungary in the group of countries whose public finances have succumbed to the social pressures emanating from the economic transformation, needs

to be qualified by the developments of the past three years. Since the adoption of the March 1995 fiscal measures, and the subsequent restrictive budgets, Hungary has made much progress in reducing the size of the state and retooling the scope of many expenditure programs. Nevertheless, the size of its government, even by regional standards, remains large (table 6.2).[12] During 1992-94 the public expenditure/GDP ratio averaged 61.2 percent in Hungary, whereas in the Czech Republic it was only 51 percent. Even with the important decline in expenditures accomplished after 1995, Hungary remained in 1997—at about 50 percent of GDP—the most profligate country in Central Europe in terms of public outlays. This section, thus, discusses whether, after five years of reforms, the changes in the level and composition of government expenditures in Hungary can be thought of having settled toward a norm "appropriate" to the socioeconomic characteristics of the country. We provide here empirical evidence that, somewhat counterintuitively, militates in favor of the thesis that Hungary's expenditure patterns do not appear to be too far from the levels justified on the basis of its implicit and explicit public-policy choices.

Table 6.2 ***Evolution of Government Spending: Central European Transition Economies*** **(percentage of GDP)**

Country	*Pre-transition (1988-90)*	*Transition 1992*	*1993*	*1994*	*1995*	*1996*	*Change*[a]
Bulgaria	61.6	45.9	48.1	48.2	41.7	45.3	-16.3
Croatia[b]	40.6	39.8	36.1	44.6	49.6	47.8	7.2
Czech Republic[c]	68.7	52.2	50.0	50.7	48.8	47.1	-21.6
Hungary	60.0	59.2	60.3	60.8	53.4	50.3	-9.7
Poland[d]	48.5	50.0	49.9	50.5	49.7	48.7	3.0
Romania	40.2	42.0	34.2	33.9	34.7	37.1	-3.1
Slovenia[b]	40.6	46.2	46.7	46.3	46.1	45.9	4.3

a. Change between 1996 and average 1988-90.
b. Data for 1988-90 refer to Yugoslavia.
c. Data for 1988-90 refer to Czechoslovakia.
d. Pre-transition data correspond to 1985-87. Data for 1989 and 1990 are highly distorted by hyperinflation of 1989 and the increase in paper profits in enterprises in 1990.
Source: Multiquery Database (World Bank 1997).

DETERMINANTS OF PUBLIC EXPENDITURE IN HUNGARY

The question of the adequacy and sustainability of the spending patterns that have emerged from former socialist countries is now addressed more directly. More specifically, by adopting a concept of the "carrying capacity" for fiscal burden of a given economy, it is evaluated whether the public-spending/GDP ratios observed in these economies are in line with "comparable" indicators predicted from structural characteristics of advanced and less-advanced comparators, and, perhaps more importantly, whether the fiscal burdens implied by these spending ratios are indeed bearable for the reforming economies in the long term.

To shed light on these issues, we utilize the model developed by Barbone and Polackova (1996), which aims at explaining cross-country differences in the ratios of general government expenditure and revenues to GDP. The econometric analysis is carried out using data on 47 countries, including the OECD, and a group of middle-income developing countries, for 1994-95 (averages).

The purpose of the regressions is as follows. Government spending ratios prevailing in the 26 reforming economies are assessed by running a regression on the spending patterns and selected structural indicators of the other groups. The choice of indicators is discussed below. The estimated parameter values to obtain theoretical spending ratios for ex-socialist economies are used, and compared against the actual values. The difference between the theoretical and actual values as an indication of over- or under-spending is used, and comparisons based on the country groupings defined in the previous section are provided. In the next section, the same procedure is repeated for government revenues. Then, the two sets of results are put together, and observations are drawn on adequacy and sustainability of expenditures.

The model developed in this section essentially argues that the size of the state in a market economy is the result of public-policy choices regarding the public/private split in the provision of goods and services, coupled with other factors, such as demographic and structural parameters that characterize that economy.[13] Therefore, the benchmark regression included the following explanatory variables: per-capita GNP at purchasing power prices (*gdp95*); the dependency ratio in the population (*old90*); average 1994-95 public debt/GDP ratio (*debt*); secondary school enrollment (*sec*); mortality rate (*mor*); and dummies for geographic regions such as Latin America and Asia (*las*) and Europe (*eu*). The explanatory variables were chosen after some experimentation to achieve

the best overall fit for the regression, within constraints of data availability.[14]

Table 6.3 summarizes the results from the regression that was selected according to the best fit for the determinants of government expenditure, with standard errors below the coefficients. The signs of the coefficient estimates are the expected ones. Secondary enrollment, which is used as a proxy for quality of government services, has a positive sign indicating that a higher literacy level of the population increases demand for public consumption expenditures. Similarly, both public-debt-ratio to GDP and old-age-dependency ratio coefficients turned out positive, as expected. The parameter values thus obtained were used to estimate predicted expenditure/GDP ratios for a group of Central European transition economies, including Hungary, and then compared to the actual values.

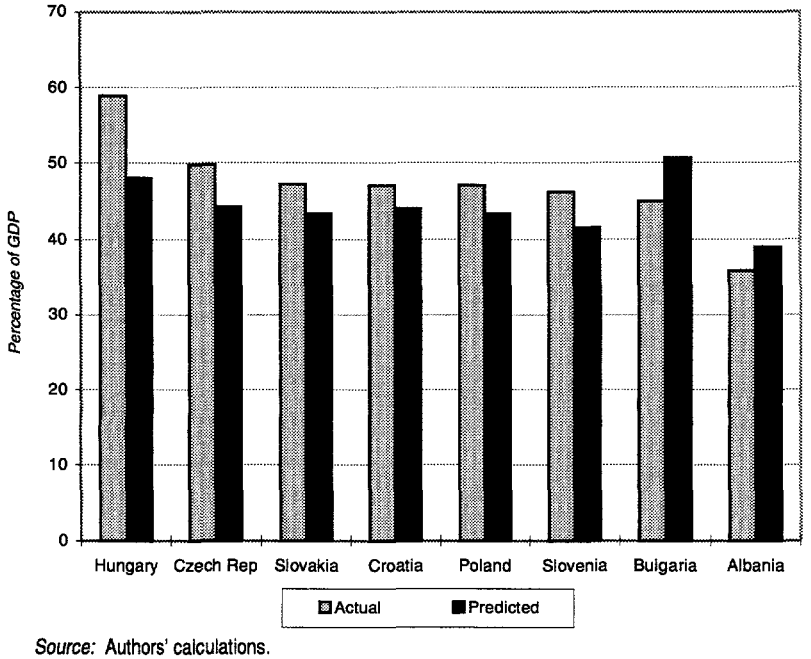
Based on the parameter coefficients, the "predicted" size of the state for the ex-socialist economies, and for Hungary in particular, is estimated. Hungary, Slovakia, the Czech Republic, Poland, and Slovenia continue to appear as somewhat excessive spenders (figure 6.2); that is, their spending ratios are greater than predicted by some 2 to 6 percent of GDP. However, an interesting feature is that, unlike the rest of the "overspenders," by 1995, Hungary's public-expenditure-ratio deviation from the "predicted" value had decreased compared to the estimate found in Barbone and Polackova. Moreover, if it is assumed that the old-age dependency ratio remains the same and 1996 figures for public debt/GDP and secondary enrollment are used, we find that Hungary does not appear to have public expenditures too far from what would be justified on the basis of public-policy choices. For the rest of the countries the deviation from the predicted values worsened in 1995. For example, between 1994 and 1995 Poland's actual values depart from the predicted values from 3 to 5.2 percentage points; Czech Republic's from 2.7 to 5 percentage points.

Table 6.3 ***Estimation Results***

Dependent variable: general government expenditure ratio to GDP					
Estimates of coefficients					
Constant	*Debt*	*SEC*	*OLDEU*	*LAS*	*Statistics R^2*
19.52	0.08	0.11	0.37	-5.00	0.79
(4.33)	(2.29)	(2.65)	(4.93)	(-1.99)	

Note: OLDEU = OLD90 x EU where EU = 1 if European Union country and 0 otherwise.
Source: Authors' calculations.

Figure 6.2 ***General Government Spending in Central European Countries, 1994-95***



Source: Authors' calculations.

Summarizing, Hungary apparently has moved away from being the outlier in terms of public-sector size among Central European countries. Moreover, while the other countries appear to be increasingly moving away from spending patterns justified on the basis of public choices, Hungary is taking important steps toward a public-sector size that conforms more closely to what could be expected based on international norms.

SUSTAINABILITY OF THE STATE: REVENUE CAPACITY FROM A CROSS-COUNTRY PERSPECTIVE

The findings of the previous section, namely that Hungary's general government spending is converging, in terms of share of GDP, to the size that would be predicted on the basis of socioeconomic indicators, does not directly address the issue of how much government spending Hungary (and, for that matter, the other reforming economies) can actually afford. This leads to the next topic: what is the current and future ability of governments to collect sufficient revenues to finance their spending?

What is Hungary's "capacity"—and that of all reforming ex-socialist economies—to generate tax revenues? To what extent do these countries use this capacity currently? These questions also clearly are valid for countries that are relatively close to their predicted levels of government spending.

This section utilizes an empirical model linking observed government revenues to structural indicators of the economies to which they pertain. As in the previous section, a model fitted to a cross-section of non-ex-socialist countries will be used to predict values of government revenues in those countries and compare them with currently obtained values.

The literature has identified a relatively narrower number of determinants of government revenue.[15] On the basis of these indications, the "preferred model" in Barbone and Polackova for the years 1994-95 was re-estimated. The model uses as dependent variable general government revenue (*gr*) figures for the same 47 countries included in the previous section, and applied on the transition countries. The regression (table 6.4 uses purchasing power parity-based per-capita GDP (*gdp*), share exports in GDP (*x*), secondary-education enrollment (*sec*), and public debt in percentage of GDP to represent an exogenous pressure on the government effort to expand revenue (Tanzi 1992). As in the case of the analysis of government expenditure, the model for government revenue can explain a satisfactory amount of the sample variance, and have most coefficients significant at the 5 percent level and of the expected sign.

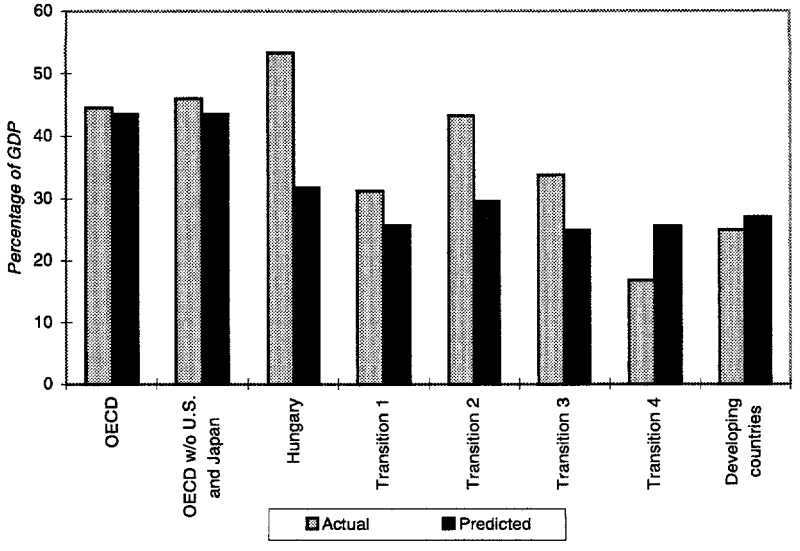
The predicted revenue/GDP ratios based on this regression are displayed in figure 6.3. Most transition economies display higher-than-predicted revenue ratios, with the exception of countries in Group 4 (the most affected by the displacements linked to the economic transformation), whose tax systems have collapsed.

Table 6.4 ***Revenue Equation Estimation Results***

Dependent variable: general government revenue ratio to GDP					
Estimates of coefficients					
Constant	*GDP95*	*SEC*	*Debt*	*x*	*Statistics R^2*
8.814	0.0008	0.101	0.079	0.154	0.60
(2.11)	(2.71)	(1.38)	(2.03)	(1.90)	

Source: Authors' calculations.

Figure 6.3 ***Revenue Capacity, 1994-95***



Source: Authors' calculations.

The figure is particularly telling in the case of Hungary: as can be seen, total revenues currently collected amount to almost double those predicted by the cross-country indications (more than 53 percent of GDP versus an expected value of about 32 percent of GDP). It is important to highlight that the figure for actual revenues includes privatization revenues, which for 1995 amounted to 3.5 percent of GDP. Moreover, 1996 privatization revenues increased to 4.7 percent of GDP, whereas current revenues as a share of GDP declined from 48.5 to 46.5 percent. It is, thus, not surprising that pressure on the revenue side was felt, as witnessed by the decline in collection by some 10 percentage points of GDP since the late 1980s.

To bring forward "long-term discrepancies," we compare predicted revenue with actual expenditure (last column in table 6.5). This approach illustrates that such an implicit deficit is quite large in Hungary, reaching 27 percent of GDP. The large gap between predicted revenues and actual expenditures suggests that, in the long term, unless there is rapid economic growth and "formalization" of gray economies, Hungary may fail to raise sufficient revenue to sustain its current expenditures. This conclusion is reinforced by the trends in the aging of the population, which are likely to result in increasing pressures on social security expenditures.

Table 6.5 ***Index of Tax Effort and Actual and Predicted Deficits, General Government, 1994-95***

Country group	*Tax effort index*	*Predicted revenue*	*Actual revenue*	*Predicted expenditure*	*Actual expenditure*	*Actual deficit*	*Deficit for predicted revenue and predicted expenditure*	*Deficit for predicted revenue and actual expenditure*
OECD	1.0	43.5	44.5	47.0	47.3	-2.8	-3.5	-3.8
OECD (without U.S. and Japan)	1.1	43.5	46.0	48.2	48.8	-2.8	-4.7	-5.3
Hungary	1.7	31.7	53.2	48.1	58.9	-5.7	-16.4	-27.2
Transition 1	1.2	25.7	31.2	41.0	36.2	-5.0	-15.3	-10.5
Transition 2	1.5	29.5	43.2	43.1	47.4	-4.2	-13.5	-17.8
Transition 3	1.4	24.9	33.8	40.5	37.2	-3.4	-15.7	-12.3
Transition 4	0.7	25.6	16.8	36.8	20.8	-4.0	-11.2	4.9
Developing countries	0.9	27.0	24.9	26.7	26.0	-1.1	0.3	0.9

Source: Authors' calculations.

What does a large gap between predicted revenue and predicted expenditure suggest? The regressions have proven that factors of sociopolitical development play a greater role in determining government expenditure, whereas economic factors, and national income per capita in particular, are more important explanations of revenue collection. A large predicted deficit, or surplus, therefore, could be interpreted as manifesting a gap between domestic social and economic development, as it does in Hungary and most developing countries. Hungary seems to provide very generous social services relative to the development of its national economy. In this case of relative economic underdevelopment, to sustain levels of social development, the government should involve the private sector in rationalizing and providing social services before these services become empty political promises.

The data in table 6.5 suggest two considerations. First, that despite the apparent convergence of Hungary toward spending patterns along the lines of developed and developing countries with capitalist systems, there is reason to expect that continued difficulties will be registered in financing these outlays. The priority given to tax reform, and, as argued in chapter 18, particularly to tax administration strengthening and modernization, will need to remain high. Second, however, the results suggest that, to avoid stifling economic growth with excessive levels of taxation, priority should continue to be assigned to sustainable reductions in public outlays. These require profound reforms of major spending programs, and a redefinition of the role of the state in many critical areas, particularly those related to social protection. These are reforms that can only take effect in a medium-term context, and need to be sustained over time. These, incidentally, are considerations that can be applied to most reforming ex-socialist economies, as shown by figure 6.3. It is no coincidence, therefore, that the policy agendas with regard to public finance reform in many of the countries of Central Europe and the former Soviet Union display great similarities.

CONCLUSION

The analysis in this chapter shows that Hungary's public finances have come a long way in adjusting to the systemic challenges brought about by its transformation into a democratic, market-based, society. The reduction in the size of the state accomplished after 1995, in particular, has contributed to a narrowing of the discrepancy between the resources claimed by the state for public programs and those predicted on the basis of international comparisons. Nevertheless, it is also clear that much re-

mains to be done to control the potential growth of the state and to further consolidate revenue capacity. Thus, it is not surprising (as discussed in greater length in chapters 17 and 18) that revenues have been under strong pressure: this remains an area for continued attention by policymakers.

More fundamentally, the discrepancy between the size of the state that occurs as a result of the public-policy choices that have been made in the past, and the carrying capacity that is reasonable to expect for a country of Hungary's characteristics, point to a fundamental dilemma that should concern Hungarian society at large: Has the country not chosen spending programs—particularly in the social protection areas—that are too generous for its own good? Does it not risk, in attempting to fund these programs with such large amounts of resources, stifling the chances of successfully catching up with the rest of Europe within the next generation?

NOTES

1. Included in this definition are *all* the countries that have abandoned central planning as their method of economic management. The reader should be warned that this is a rather heterogeneous set of countries, with different pre-transition per-capita incomes, institutional development, and historical backgrounds. They all subscribed, however, to some form of central planning. They include Eastern Central Europe (Hungary, Poland, Czech and Slovak Republics), Bulgaria and Romania, the successor states of the Soviet Union, as well as the former Yugoslavia and Albania, plus Mongolia. The reason for including all of them in the analysis is that they shared common traits useful to explain the fiscal developments subsequent to the transformation. Because of their substantially different approaches to economic transformation, China or Vietnam are not included because they have not in any case formally abandoned central planning.

2. See here the analysis contained in World Bank (1996) and the comprehensive references to the existing literature contained therein.

3. Tax-based incomes policies, pioneered in Hungary since the late 1970s, represented a partial exception to this statement. They were, however, aimed at curbing excessive wage growth due to lack of ownership, rather than controlling the business cycle.

4. It should be noted that during 1993-94, the highest OECD spender, Sweden, at 72 percent of GDP, far surpassed the most profligate reforming economies. In 1988-89, Sweden's general government expenditure accounted for about 62 percent of GDP, but rose by 10 percent of GDP thereafter.

5. In addition to enterprise subsidies, government also carried the cost of settling inter-enterprise arrears and non-repaid loans from the state-owned banks.

The financial burden of this soft budget was quite heavy also on the government of Yugoslavia (Corricelli and Rocha 1991). Also invisible in the budget figures were some implicit subsidies financed by tax offsets and negative real interest.

6. The proportion of social transfers in the government budget was lower than in many OECD countries because many social functions were performed by the state enterprise system. For example, in the former Soviet Union, a large amount of goods and services, including daycare, was provided through the social consumption funds of the state enterprises, which were also in charge of allocating social security benefits and collecting tax and social security contributions. Thus, most of the transition countries had developed neither strong social security administrations nor historical records of individual contributions and benefits. Later, creation of new sovereign states required building their public administration systems from virtually a zero base.

7. For a complete discussion of cross-country experiences, see World Bank (1994).

8. In Albania, for instance, all recorded investment was carried out by state enterprises, and took the form of central allocations to enterprises for investment purposes. Indeed, in keeping with the pure central-planning model, enterprises were not allowed to retain any of their surplus, and could not, therefore, invest on their own. A similar practice was obtained in Romania and the former Soviet Union. This had the effect of showing the entire domestic investment as a budgetary expenditure item, something that is not consistent with Government Financial Statistics practices with regard to general government reporting.

9. These figures are disputed, as alternative estimates put military expenditures as high as 20 percent of GDP. See IMF, World Bank, OECD, European Bank for Reconstruction and Development 1991.

10. In addition, outlays on interest payments increased quite sharply.

11. The drop in, and shortage of, tax revenues, more drastic here than in the other countries, are due also to the lack of economic reforms. And, as the state is running out of breath with financing of its economic interventions, there may be hope for economic liberalization.

12. Note that all countries in table 6.2 belong to Group 2 in the classification discussed above.

13. Previous studies on the determinants of government spending in large cross-sections of countries have focused on a number of explanatory variables. According to Wagner's "law," (Ram 1987) for example, the demand for government services is income inelastic, so that the share of government consumption in GDP is expected to rise with income. Other variables typically considered are demographic and structural conditions. See, for example, Tait and Heller (1982), Ram (1987), Heller and Diamond (1990), and Rodrik (1996). The literature suggests that a meaningful analysis of government expenditures should take into account societal factors, portraying social demand and consensus, together with indicators of the government's ability to pursue its own policy pri-

orities and overcome financial constraints. Change in any of these factors may lead to significant shifts in the size and composition of government expenditure.

14. The main data sources are the World Bank's World Development Indicators (1997), the MultiQuery Database (World Bank 1997), and OECD (1997). The dependent variable is a 1994-95 average of general government expenditure (as share of GDP). The sample consists of 43 non-transition countries.

15. See Barbone and Polackova (1996) for a more detailed discussion. Determinants proposed include demographic factors, (urbanization, population densities, population size) the degree of economic openness (Oshima 1957; Tanzi 1992; Lotz and Morss 1967), aggregate GDP, national income per capita, the distribution of income, the industrial origin of output, and the composition of government expenditure. General economic factors, such as prosperity and income distribution, may also influence the tax system, the use of particular tax sources, the amount of tax exemptions, and, consequently, tax revenues. Other revenue determinants relate to technological advances. Greater sophistication in tax collection reduces the sacrifice undertaken to raise taxes by expanding the available set of effective tax sources. Social, political, and administrative influences on government revenue are again very multifaceted and closely related to the determinants of government expenditure. Social and political factors, such as the attitude toward egalitarianism, allocative neutrality, fiscal centralization, the depth of democracy (civil society), and the influence of various interest groups, help determine the extent to which a government can exploit a potential tax base. War and crises also seem to have long-term tax effects: People accept, in a period of war or depression, tax levels and methods of raising revenue that in quieter times they would have thought intolerable.

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PART III

REFORMING SOCIAL EXPENDITURES

7 The Hungarian Pension System in Transition

Robert Palacios and Roberto Rocha

The Hungarian public pension system is a defined benefit scheme financed on a pay-as-you-go (PAYG) basis that has reached a high degree of maturation. Like PAYG schemes in many countries with an aging population, the Hungarian pension system is characterized by high-system dependency ratios, large expenditures relative to GDP, high contribution rates, and a precarious financial situation. In addition to the inevitable impact of demographic aging, the deterioration of pension finances in Hungary is strongly related to policies prevailing under the socialist regime, such as a low retirement age, and certain strategies followed during the transition to a market economy, such as the liberal use of disability pensions to ease transitional unemployment.

Despite very high payroll taxes and reductions in the average pension through manipulation of indexation parameters, earmarked revenues have not covered expenditures in recent years. Expenditure pressures will intensify after the turn of the century, when dependency ratios are projected to increase significantly. Meanwhile, the scope for keeping these expenditures under control through ad-hoc adjustments to indexation parameters is narrowing. Explosive deficits could come sooner if the high payroll tax rates and diminishing confidence in the public PAYG scheme continue to drive economic activity into the informal sector, further eroding the tax base. A shrinking tax base and growing pension expenditures would result in either larger general government deficits or higher payroll taxes. Neither outcome would be acceptable, given the government's efforts to correct the large fiscal disequilibria of the early 1990s and to reduce extremely high payroll tax rates, which constitute more than 40 percent of labor costs, defined as gross wages plus employer contributions.

The challenge for Hungary is to implement successfully a pension reform capable of restoring long-run financial viability and reducing economic distortions while protecting the most vulnerable groups during the transition. In May 1996 the government announced its intention to take on this challenge by introducing a multi-pillar system in Hungary. The draft legislation was submitted to Parliament in May 1997, after a year of intense technical work and discussions with the major social

partners. The law was passed by Parliament on July 15, 1997, and full implementation began in January 1998. Hungary is thus the first former socialist country to implement such a systemic change.

This chapter examines the recent evolution of the Hungarian pension system and the reform proposal passed by Parliament in the summer of 1997. The first section identifies the problems of the old PAYG system and presents long-run projections of the deficits that would have resulted in the absence of reform. The second section briefly examines the policy discussion surrounding the reform effort. The third section describes the reform program and assesses its medium- and long-run economic impact. Finally, a concluding section identifies preliminary lessons for other transforming socialist countries.

PENSION SYSTEM PERFORMANCE IN THE POST-WAR PERIOD

Hungary's PAYG system matured rapidly during the post-war period, as coverage expanded and the retirement age was reduced from its pre-war levels of age 65 (men), 60 (women), to age 60 (men), 55 (women).[1] Table 7.1 shows this maturation as reflected in the rapid increase of the system-dependency ratio (the ratio of pensioners to workers), which surpassed the old-age dependency ratio (the ratio of persons aged 60 and above to those aged 20-59) in the mid-1970s. The growing difference between the two ratios was partly due to the low retirement age for women, who comprised an increasing proportion of the pensioner population, and whose life expectancy at retirement rose from 20 to 23 years over the last three decades. Benefit levels also rose, driven by longer average contribution periods, more generous benefits, and more permissive eligibility rules. These developments, typical of PAYG schemes around the world, led to a steadily increasing ratio of pension spending to GDP (figure 7.1).

It is difficult to assess the balance of the pension system during the post-war period, as payroll tax revenues financed both pension and health expenditures, without any clear distinction between the two classes of expenditures within the overall social insurance budget. In the first two decades after the war there were years when revenues exceeded expenditures, even though payroll taxes were lower at that time. Between the 1970s and 1983, payroll tax revenues were not sufficient to cover outlays on both health and pensions (figure 7.1), suggesting that the PAYG system started experiencing deficits during that period. Payroll

Table 7.1 ***Maturation of the Hungarian Pension System, 1950-1995***

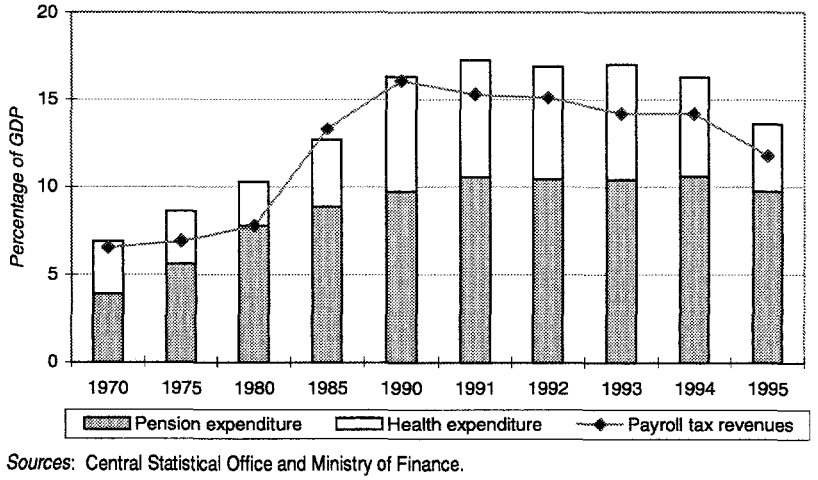
Year	Ratio of pensioners to employed	Ratio of pensioners to pension-age population [a]	Ratio of persons aged 60+ to those aged 20-59	Ratio of average pension to average net wage
	percentage	percentage	percentage	percentage
1950	12.9	39	21.2	21.5
1955	--	38	--	24.9
1960	15.2	43	25.9	32.4
1965	--	59	--	32.3
1970	26.4	56	32.2	34.4
1975	--	71	--	42.2
1980	35.8	83	30.6	55.5
1985	40.8	93	--	56.2
1990	46.1	105	35.9	66.1
1995	74.8	130	36.0	61.0

-- Not available.

a. Pension-age population refers to women over age 55 and men over 60.

Sources: Bod (1995), Pension Insurance Fund (1996).

Figure 7.1 ***Payroll Tax Revenue Versus Pension and Health Expenditures, Hungary, 1970-1995***



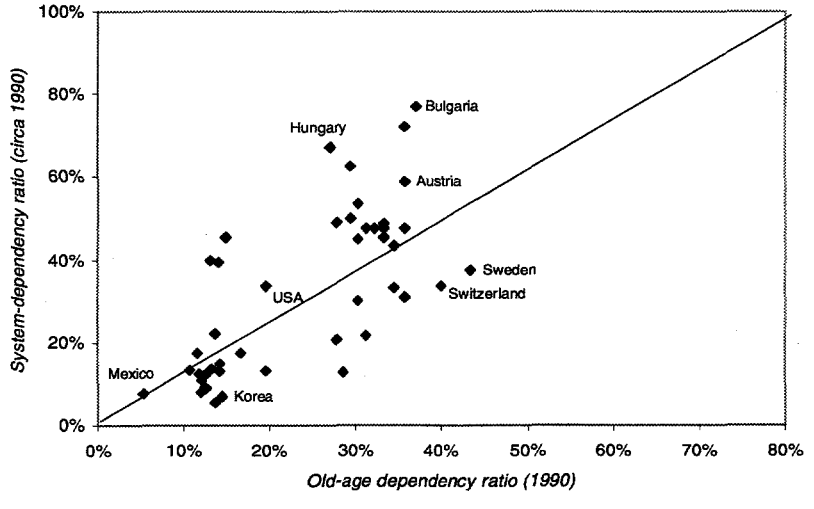
Sources: Central Statistical Office and Ministry of Finance.

taxes were increased in the latter half of the 1980s, allowing the social insurance budget to generate a surplus equivalent to 1 percent of GDP in 1989. Deficits returned in the early 1990s, however, as the pressures on the PAYG system increased again with the start of Hungary's economic transformation.

Pension Finances during the Transition to a Market Economy

As in many former socialist countries, pressure on Hungarian pension finances took the form of a dramatic increase in the system dependency ratio between 1991 and 1995. This increase occurred despite a temporary pause in the demographic aging process, as indicated by the stability of the old-age dependency ratio between 1990 and 1995 (table 7.1). By 1995, the relationship between the old-age dependency ratio and the system-dependency ratio was among the most skewed in the world (figure 7.2). Therefore, recent pressures on the pension system are not directly related to population aging, but to policies during Hungary's transition toward a market economy.

Figure 7.2 ***System-Dependency Ratio Versus Old-Age Dependency Ratio, Hungary Versus Selected Countries***



Sources: World Bank (1994), Pension Insurance Fund (1996).

The increase in the system-dependency ratio was due to a reduction in labor-force participation (which fell from 85 to 76 percent between 1990 and 1994), increased unemployment (which rose from nearly zero in 1990 to around 10 percent in 1994), and an increase in the rate of new early retirement and disability claims.[2] The abuse of the disability system was of particular importance because it affected both the numerator and the denominator in the ratio. From 1985 to 1990, the rate of new disability claims in the non-agricultural sector averaged approximately 85 per 10,000 covered workers. By 1995, this ratio had jumped to 160.

The exact impact of these shocks to the finances of the PAYG system is difficult to assess, despite the separation of the Pension Insurance Fund (PIF) from the Health Insurance Fund (HIF) in 1992. This difficulty is due to the shift of certain pension spending outside the PIF budget (for example, disability pensions for younger workers were shifted to the HIF and agricultural pensions were shifted to the state budget), a convoluted web of transfers between the central budget, the HIF and the PIF and certain special revenue items in the PIF budget. The PIF itself has experienced deficits of around 0.3 percent of gross domestic product (GDP) since its creation despite charging payroll tax rates of 30.5 percent on gross wages.[3]

The overall deficit of the PAYG pension system (defined as the difference between all pension expenditures and contribution revenues) is significantly larger. As shown in table 2.1, covering all pension expenditures in 1992 (including underage disability pensions and agriculture pensions) would have required a notional contribution rate of 35.5 percent, or roughly 5 percentage points higher than the rate charged by the PIF. However, the revenues generated from this high notional contribution rate would have fallen short of covering total pension expenditures by approximately 1.5 percent of GDP between 1994 and 1996.

The financial performance of Hungary's pension system can be examined further by decomposing the ratios of revenues and expenditures to GDP into several components as shown in equations 7.1 and 7.2.

$$\text{(7.1)} \qquad \frac{Revenues}{GDP} = \alpha * \frac{Covered\ Wage\ Bill}{Wage\ Bill} * \frac{Wage\ Bill}{Labor\ Income} * \frac{Labor\ Income}{GDP}$$

$$\text{(7.2)} \qquad \frac{Expenditures}{GDP} = \frac{Pensioners}{Employed} * \frac{Average\ Pension}{Average\ Gross\ Wage} * Real\ Average\ Gross\ Wage * \frac{Employment}{Real\ GDP}$$

In equation 7.1, α is the notional contribution rate that would have balanced all pension expenditures and contribution revenues in 1992, the year when the PIF was created. The covered wage bill[4] is the share of the wage bill effectively captured to finance pension expenditures; labor income is defined as the wage bill, social security contributions paid by the employer, and the labor share of mixed income (mostly self-employed individuals),[5] all taken from national accounts data. GDP is measured at market prices. Equation 7.1 highlights the major components of the base of the payroll tax, and thus enables the identification of the possible sources of erosion of the tax base.

Equation 7.2 enables the examination of the evolution of pension expenditures, relative to the size of the economy. Thus, for instance, an increase in the ratio of pensioners to employed workers (the system-dependency ratio) increases the ratio of pension expenditures to GDP, but this effect can be offset by a commensurate decrease in the ratio of employed workers to real GDP (an increase in labor productivity). Likewise, an increase in the ratio of the average pension to the average gross wage (a measure of the average replacement ratio) increases the ratio of pensions to GDP, but that can be offset by a reduction in the real average gross wage. Note that the average gross wage was constructed by dividing the total wage bill by total employment, and the real average gross wage by dividing the average gross wage by the GDP deflator. These two variables close the accounting identity in (7.2), although they differ from the more familiar average wage reported by the Central Statistical Office.

The components of the two accounting identities (7.1) and (7.2) were estimated for 1991-96, the period for which consistent national accounts data were available. Total revenues were calculated using a contribution rate of 35.5 percent, which is the rate that would have balanced the PAYG system in 1992 (table 7.2). Total expenditures include pension spending by the PIF, the HIF, and the state budget. This construction provides a comprehensive view of pension revenues and expenditures at all levels of government, and makes it possible to compare a consistent definition of pension spending over time.

The results, shown in tables 7.3 and 7.4, reveal several interesting trends. First, contribution revenues declined significantly as a share of GDP between 1991 and 1996. Table 7.3 shows that this decline cannot be attributed only to problems in collecting contributions from formal sector employees, as the ratio of the covered wage bill to the wage bill

Table 7.2 ***Public Pension Finances in Hungary during the Transition*** **(percentage of GDP)**

Item	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*
Contribution revenues[a]	11.0	10.4	10.1	9.7	8.9	8.5
of which PIF budget	n.a.	8.9	8.7	8.3	7.6	7.3
Pension spending[b]	10.5	10.4	10.4	11.4	10.5	9.7
of which PIF budget	n.a.	8.6	8.5	8.8	8.9	7.4
of which HIF budget	n.a.	1.2	1.3	1.3	1.2	1.2
of which central budget	n.a.	0.6	0.6	1.3	1.3	1.1
Notional PAYG balance	0.5	0.0	-0.3	-1.7	-1.6	-1.2

n.a. Not available.

a. Payroll tax considered here is 35.5 percent which is the rate required to generate contribution revenues sufficient to cover all pension spending in 1992. Intragovernmental transfers on behalf of the unemployed and soldiers are ignored as are payments of penalties, etc. The overall payroll tax for health and pensions was 53 percent in 1990-91. This was raised to 54 percent (44 percent employer/10 percent employee) in April of 1992.

b. Expenditures do not include administrative costs.

Sources: Central Statistical Office, Ministry of Finance, and Pension Insurance Fund.

Table 7.3 ***Decomposition of Pension Revenues in Hungary during the Transition*** **(percentage of GDP)**

Indicator	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*
Contribution revenues/GDP	11.0	10.4	10.1	9.7	8.9	8.4
Covered wage bill/wage bill	75.6	75.2	75.3	77.0	78.0	73.1
Wage bill/total labor income	66.5	63.2	61.9	62.2	58.2	58.3
Total labor income/GDP	61.4	61.8	60.9	57.1	55.1	55.3
Payroll tax rate considered	35.5	35.5	35.5	35.5	35.5	35.5
Wage bill/GDP	40.8	39.1	37.7	35.5	32.1	32.2
Covered wage bill/GDP	30.9	29.4	28.4	27.3	25.1	23.5

Sources: Central Statistical Office, Ministry of Finance, and Pension Insurance Fund.

Table 7.4 ***Decomposition of Public Pension Expenditures in Hungary during the Transition*** **(percentage of GDP)**

Indicator	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*
Pension expenditures/GDP	10.5	10.4	10.4	11.4	10.5	9.7
System-dependency ratio	39.5	58.5	66.7	71.8	74.8	78.1
Replacement ratio (System of National Accounts, United Nations)	52.2	45.5	41.3	44.8	43.7	37.9
Wage bill/GDP	40.8	39.1	37.7	35.5	32.1	32.9
Breakdown of wage bill/GDP						
Real average wages	191.8	196.7	207.6	211.5	199.6	209.5
Employment/real GDP	2.13	1.99	1.82	1.68	1.61	1.57
Replacement ratio (Central Statistical Office)	6.4.4	58.0	57.4	60.8	61.0	57.9

Sources: Central Statistical Office, Ministry of Finance, and Pension Insurance Fund.

was rather stable during the first half of the 1990s (until the decline in 1996). The absolute level of this indicator does, however, signal persistent problems with the contribution base, given that approximately one fourth of the wage bill seems to be untouched by the payroll tax. Most of the untaxed wage bill was due to arrears, exemptions of certain nonmonetary forms of compensation, and specific types of income, as well as the taxable earnings ceiling on employee contributions.

The second component is a rough proxy for the proportion of total labor income generated by employees of private firms in the formal sector and public sector employees. This ratio has fallen steadily, as shown in table 7.3. The decline in the formal sector wage bill relative to total labor income can be largely explained by a shift of many workers to self-employment status, motivated in good part by attempts to minimize tax liabilities. While self-employed workers have to pay payroll taxes just like other workers, they also tend to underreport their income.

Table 7.3 also shows that the revenue decline was due to the overall contraction of the labor share of GDP, which fell from 61.4 to 56.7 percent of GDP over the period. This decline was in good part due to falling labor-force participation rates, which, in turn, was the product of increasing student-enrollment ratios, disability, early retirement, and fewer working pensioners. Another factor was unemployment, which rose from 0.3 to 14 percent between 1990 and 1993 before leveling off at 10 per-

cent in 1995.[6] In addition, the sharp decline in 1995 was largely due to restrictive wage policies introduced by the government in the March 1995 stabilization program—real average wages fell by more than 10 percent during that year.

This steady decline in revenues was not matched by a similar fall on the expenditure side, however. Total pension spending remained around 10.5 percent of GDP until 1996, when it fell to 9.7 percent. The relative stability of the expenditure ratio was due neither to favorable demographic patterns, nor to reforms of the pension system. On the contrary, despite favorable demographics, the system-dependency ratio was allowed to increase precipitously during the period, as proposals to raise the retirement age and tighten disability requirements were largely ignored. As shown in table 7.4, the jump in the system-dependency ratio would have increased the ratio of pension expenditures to GDP by nearly 60 percent between 1991 and 1996, had it not been offset by other factors. This offset did occur however, as indicated by the decline in the replacement ratio, and in the ratio of employment to real GDP; that is, the increase in labor productivity. During 1995, the real average wage also declined sharply, contributing to the decline in the ratio of expenditures to GDP.

The reduction in the average replacement ratio was largely due to the manipulation of three key indexation parameters in the determination of pension benefits. First, the lack of full actualization of past wage history in the benefit formula resulted in erosion of real entry pensions.[7] Second, the brackets or bend points in the redistributive benefit formula were not fully adjusted for wage growth, leading to a "reverse-bracket creeping" effect. These two factors resulted in a sharp drop of entry-level pensions, both in real terms and in relation to the average wage in the economy. Third, less than full indexation of pensions to gross wages also contributed to the reduction in the ratio of the average pension to the average gross wage. During this period, pensions were indexed to movements in the expected net average wage during the upcoming calendar year. As it happened, the average pension failed to fully adjust to changes in net wages, ex post, and fell even more relative to gross wages during the same period, because of the increase in average personal income tax rates.

The decline in the ratio of employment to real GDP also helped stabilize the pension-spending ratio, as shown in table 7.4. From another angle, although the system-dependency ratio increased by more than 50 percent between 1991 and 1996, the impact of such an increase was

partly mitigated by the 35-percent gain in labor productivity (real GDP per employed worker) during the same period. Finally, although the increase in the real average gross wage exerted upward pressure on the spending ratio for some years, its sharp drop in 1995 contributed significantly to its decline in that year.

The fundamental role played by the manipulation of indexation parameters in maintaining the balance of the pension system is an important finding. It reveals the system's dependence on high rates of inflation and ad-hoc opaque indexation rules that have been perceived as arbitrary and unfair by the Hungarian public.[8] Whereas the scope for continued manipulation of indexation parameters in this opaque fashion seems to be narrowing, further sharp increases in labor productivity are also unlikely, as most of the shedding of excess labor has already taken place. Therefore, in order to control expenditures, the government needed to introduce more fundamental reforms to the pension system.

As mentioned before, pension finances deteriorated significantly during the early 1990s, despite favorable demographic developments. Along with the rest of Europe, Hungary will experience rapid population aging in the next few decades, putting further stress on the PAYG system. Under current policies, this demographic pressure will lead to a situation in which one worker will have to support one pensioner by the year 2035. Therefore, it was essential to assess the potential impact of such a deterioration in fundamentals on the finances of the Hungarian pension system. This assessment was made through the use of an actuarial model developed as part of the reform.

The main economic and demographic assumptions underlying the actuarial projections are shown in table 7.5. Official government projections of the main economic variables are used for the first three years (1997-99). After 1999, GDP and wage growth are consistent with convergence with Austrian per-capita income levels around 2030, assuming annual Austrian real GDP growth rates of approximately 1.5 percent.[9] Real wages are projected to grow in line with increases in productivity, implying a stable labor share in GDP, and real wages growing slightly faster than GDP (due to the projected decline in the working-age population). Inflation is assumed to drop rapidly and then to stabilize at about 3 percent after 2000, reflecting convergence with Western European rates of inflation. The unemployment rate is assumed to fall very gradually and to stabilize at around 6 percent by the end of the projection period. While the baseline demographic projections (elaborated in Hablicsek 1995) imply a significant increase in the old-age dependency ratio, the

Table 7.5 ***Summary of Economic and Demographic Assumptions for Baseline Pension Projections, Hungary, 1997-2050*** **(average annual rates)**

Economic variable	*1997-1999*	*2000-2030*	*2031-2050*
Economic assumptions [a]			
Real GDP growth	3.5	3.6	2.6
Real wage growth	3.3	4.0	3.3
Inflation rate	13.8	3.0	2.5
Unemployment rate	10.4	7.6	6.9
Demographic assumptions			
Population growth	-0.23	-0.31	-0.41
of which working age (20-59)	0.09	-0.47	-0.84
of which over 60	-0.22	0.58	0.77
Labor force growth	-0.06	-0.44	-0.81
Growth of pensioner population	0.32	0.25	0.31
Life expectancy (men)[b]	64.9	69.2	74.5
Life expectancy (women)[b]	74.9	77.6	82.5

a. Government projections through 1999.
b. Life expectancy at birth, in years.
Source: Pension Reform Working Group.

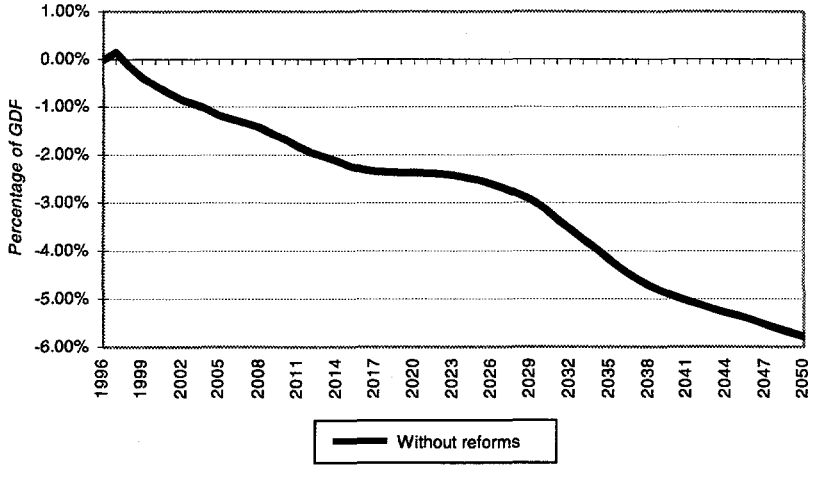
actual number of contributors to the pension system is determined by demographics as well as labor force participation rates. The latter are assumed to remain roughly constant after 1995 given that an exogenous recovery in formal sector participation rates is rather improbable in the absence of a well-designed package of reforms (including a higher retirement age, disability reform, and lower payroll taxes).

Projected pension expenditures include old age, disability, and survivors pensions.[10] Projected revenues include contributions from employed workers (the sum of employer and employee contributions), and those made by the government on behalf of the unemployed, while excluding late payments, collection of arrears, and other non-recurring items. The base year is 1995 and the model is calibrated to exactly match actual expenditures in 1996. Furthermore, the baseline contribution rate used in the projections, 35.5 percent, is chosen in such a way as to generate contribution revenues sufficient to cover 1996 expenditures as defined here.

Under these demographic and economic assumptions, and in the absence of reforms, the Hungarian PAYG system would generate growing deficits, as shown in figure 7.3. The deficits would increase to around 2 percent by the end of next decade, and would be close to 6 percent of GDP in 2050, the end of the projection period. This result is essentially due to the assumption of a declining rate of inflation, and to adverse demographic trends. The decline in the rate of inflation assumed for 1997-2005 implies increasing real average pension benefits because of the backward indexation rule, and also increasing real entry pension benefits, because of the smaller inflation-related losses built into the benefit formula. The decline in inflation dominates the results in this first period. If inflation remained constant at 1996 levels, the deficit in 2005 would be around 1 percent of GDP lower than projected.

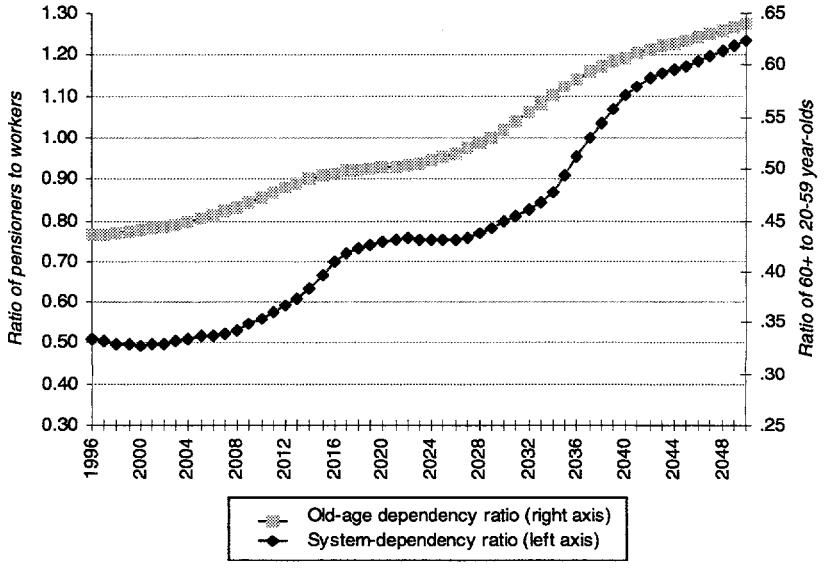
Whereas the decline in inflation and consequent increase in expenditures is the major cause of the early deficits, demographic factors dominate the results after 2005. The projected fluctuations in the deficits as a share of GDP closely mirror the old-age and system-dependency ratios, as shown in figure 7.4. Both ratios increase between 2005 and 2017, followed by a ten-year period of stability, followed by another increase. The dramatic increase in the old-age dependency ratio is from

Figure 7.3 ***Deficits in the Public Pension Scheme in the Absence of Reform, 1996-2050***



Source: Authors' calculations based on data from the Pension Reform Working Group.

Figure 7.4 ***Old-Age Versus System-Dependency Ratio in Absence of Reforms, 1996-2050***

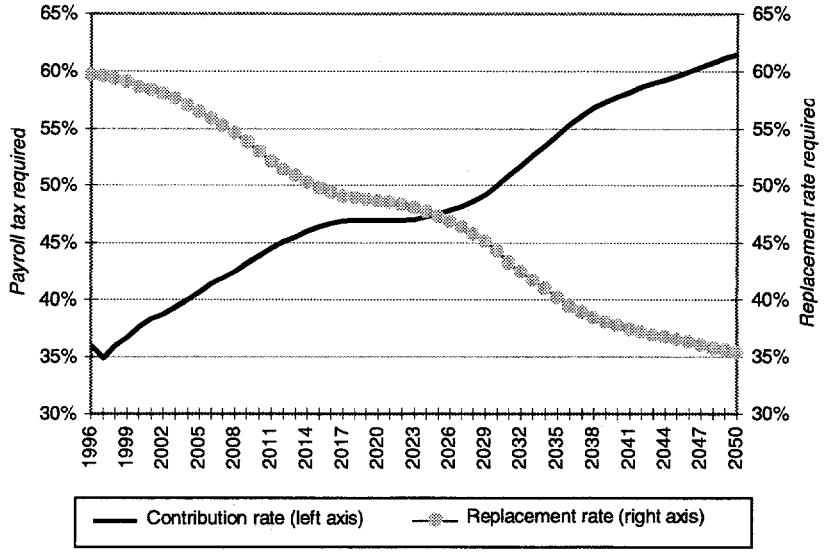


Source: Authors' calculations based on data from the Pension Reform Working Group.

about 35 to 65 percent, while pensioners eventually outnumber contributors by about 20 percent. Note that the pension deficits would probably be larger than those presented in figure 7.3, as the simulations assume that there would be no further erosion of the payroll tax base, either via outright informality or underreporting of earnings.

These pension deficits could be avoided by raising contribution rates or reducing benefits. Figure 7.5 shows how these indicators would have to change if the system were to be balanced. Clearly the type of contribution rates shown here would trigger even greater labor-market distortions than already exist, and such a proposal would be antithetical to the government's intention to reduce labor costs. At the same time, the massive cuts in the average replacement rate required to balance the system could not be achieved without social unrest and increased poverty. In short, figures 7.3 and 7.5 suggest that the system would either fail to keep current pension promises, or would do great harm to Hungary's economic performance.[11]

Figure 7.5 ***Payroll Tax or Replacement Rate Required to Eliminate Deficits, 1996-2050***



Source: Authors' calculations based on data from the Pension Reform Working Group.

THE QUEST FOR PENSION REFORM

The pressures on expenditures resulting from Hungary's economic transformation, the problems in revenue collection caused by excessive contribution rates, and the awareness of adverse demographic trends, led to a progressive recognition that the pension system had to be reformed. Reaching agreement on the best strategy for reform has proven difficult, however. There was consensus among different agencies and scholars on some important issues, such as the need to increase the retirement age, to tighten eligibility criteria (particularly for disability pensions), and to reduce contribution rates, but there was little agreement on anything else.

The most controversial and debated issue was whether the pension reform should be focused on improving the PAYG, combined with tax incentives to the voluntary, third pillar, or whether Hungary also should make an effort to introduce a mandatory second pillar. Other issues included the degree of income redistribution inside the pension system, and the system of indexation of pensions in progress. The debate became frequently populist, plagued by appeals for Hungary to avoid schemes that destroyed solidarity among generations, and to adopt a "European

model," revealing lack of knowledge or recognition of the variety of pension systems in Europe, especially the existence of large funded systems in a number of countries, primarily Switzerland, the Netherlands, Denmark, and the United Kingdom.

Although several agencies, research institutes, members of Parliament, and individual scholars were involved in the discussions, a good flavor of the debate can be obtained by briefly reviewing the original proposals of the three main public agencies involved in the reform, namely, the PIF, the Ministry of Welfare, and the Ministry of Finance. Reflecting the broader debate, all three proposals included an increase in the retirement age, tighter eligibility criteria, and some efforts to tighten the link between contributions and benefits, but diverged on other critical issues, such as the need for a second pillar.

The PIF proposal comprised two publicly managed tiers plus a small voluntary private tier.[12] The first tier would play a redistributive role by establishing a minimum pension of 30 percent of the average net wage without relation to earnings or contribution history, financed by raising the income tax. The second tier would be modeled on the German point system, in which benefits are calculated on the basis of the number of years of contribution, weighted by the ratio of the worker's covered wage to the average covered wage. The overall targeted replacement rate would be around 75 percent of the final individual net wage before retirement. This target implied a much higher replacement rate in terms of the economy-wide net average wage given a positive age-earnings profile. Pensions in progress would be indexed to wage growth. The proposal did not include estimates of the taxes required to finance the proposed system, which appeared to be more expensive than the current one.

The Welfare Ministry's original proposal was based on the view that the Hungarian pension system contained excessive elements of solidarity—a redistributive formula establishing higher replacement rates for lower income individuals. The proposal reflected an attempt to tighten the link between contributions and benefits within the PAYG scheme and to shift redistribution outside the pension system through a minimum income guarantee provided on a means-tested basis and financed from income taxes. The second tier would comprise a point system closely resembling the German system. The replacement rate target would be 60 percent of the net average wage and benefits would be increased with wages. The Welfare Ministry's original proposal differed from the PIF's by shifting redistribution outside the pension system on a means-tested basis, and attempting to open more room for the growth of the voluntary third pillar.

The Ministry of Finance's original proposal contained a means-tested minimum income guarantee of 25 percent of the average net wage. This guarantee would top up the first pillar, which would remain redistributive and PAYG. The target replacement rate of this pillar would be around 40 percent of the lifetime covered wage. The second pillar of its proposal differed fundamentally from the other two proposals, as it consisted of a fully funded defined-contribution scheme managed by the private sector. Another key distinction was a proposal to index pensions in progress to something less than full wage growth.

The debate proceeded until the spring of 1996, when the government finally decided to move ahead with a comprehensive pension reform, combining several changes in the PAYG and the introduction of a mandatory, fully funded second pillar. This decision was reflected in a joint proposal of the finance and welfare ministries outlining the main elements of the reform, and was presented to the Hungarian Parliament in the summer of 1996. The proposal indicated a program of preparatory technical work, and the creation of a 30-member working group to carry it out. The proposal also included a timetable of legislative work, whereby the new law would be submitted to Parliament by the end of the year, with expectation of adoption a few months later. The Parliament endorsed the main elements of the proposal, while requesting more details before submission of final draft legislation.

The factors that led the government to commit to a multi-pillar system in mid 1996 are not entirely clear. Trade unions seemed divided or undecided, and the general public followed the debate at a certain distance. The nonprofit pension funds in the incipient third pillar were ambivalent. Clearly, some government officials and parliamentarians realized the growing crisis of credibility faced by the PAYG scheme, and considered the multi-pillar solution as most likely to produce permanent results. According to several Hungarian policymakers, the individual measures required to keep pension finances under control—such as changing indexation—were more palatable in the context of a fundamental reform package. This view stemmed from an awareness of the public's growing frustration with the kind of temporary ad-hoc adjustments used in recent years.

The draft legislation was submitted to Parliament in May of 1997, more than one year after the decision had been reached and six months later than the original target deadline. Throughout this period, the PIF remained opposed, attacking the reform in public debates with officials of the ministries of finance and welfare and frequent interviews in the

press. The PIF argued that the proposed changes to the PAYG would hurt pensioners, and that the private component of the multi-pillar scheme would be too risky. Another concern, shared by some members of Parliament, was the possible adverse economic impact of the so-called transition deficit, the deficit caused by the loss of revenues to the second pillar.

During the last quarter of 1996 and the first few months of 1997, a series of public meetings was held with trade unions, employer representatives, pensioners, academics, students, and many smaller groups (for example, one group represented families with many children) to discuss the pension reform. These debates seemed to have increased the general public's awareness of pension issues and the prospects of a systemic reform. According to one survey (TÁRKI 1997), more than 60 percent of the public had some information on the pension reform in November 1996. The same survey found that younger, educated Hungarians were more likely to favor the multi-pillar system while persons over 60 were more likely to disapprove of it. A follow-up survey in May 1997 showed 80 percent were aware of the reform and that the percentage that saw it as a positive step rose from 38 to 53 percent.

As a result of these public debates, the government made some concessions, and the original draft legislation was modified. The most important changes to the original proposal were reducing the contribution rate to the second pillar from 10 to 8 percentage points with a commensurate increase in the size of the remaining first pillar; delaying the introduction of the combined wage/price indexation until 2001; increasing the number of service years credited to women bearing children; allowing university students to buy service years; and new guarantees for the overall replacement rate that would be received by pensioners in the mixed system.

Several further modifications were made after the legislation was brought before Parliament. Most important among them were the postponement of the introduction of the new benefit formula and taxation regime until 2013; an increase in widow's benefits for working women; the elimination of age restrictions with regard to the voluntary opt-out; and a slight increase in the value of the guarantee in the second pillar. The tax treatment of contributions and benefits was still being finalized at the time of this writing, but the general thrust of the changes was to reduce future taxation on pension benefits by introducing tax credits for pensioners. A politically important part of the compromise on taxation was the extra tax credit provided to cohorts above age 40 who contrib-

uted to the voluntary private pension scheme. This third pillar already receives very favorable tax treatment, and this measure was clearly designed to increase support from working-age cohorts who were too old to benefit from the second pillar, but who would still be negatively affected by the retirement-age increase and other PAYG measures. The cost of this extra tax break, which is likely to accrue disproportionately to higher-income persons of this age group, has not been assessed but should be relatively minor.[13]

Finally, there were a few changes that improved fiscal sustainability. The most important of these was the modification to the retirement age schedule after 2009, which raised the number of years needed for early retirement from 33 to 37, and the earliest age of retirement from 57 to 59.[14] Overall, it would seem that the impact of the changes during the summer of 1997 was to increase short-run deficits and slightly reduce long-run deficits.[15] The fact that the changes were not more dramatic reflects the fact that most of the compromises had already been made, first between the positions of the two ministries, and later between the government and special interest groups. The impact of the changes also shows the high discount rate of the politicians and interest group representatives involved in the process.

The time and effort devoted to this political process delayed much of the work required to implement the system by the original target date of January 1, 1998. By October, regulatory decrees had been issued and the licensing of private pension funds had begun; an extensive information campaign was just getting under way. While the work in these areas will have to be intense, the most difficult aspect of implementation may be the creation of the new information technology and infrastructure needed to drive the system.

MAIN ELEMENTS OF THE HUNGARIAN PENSION REFORM

The government submitted a proposal to Parliament that would have given workers under the age of 47 the choice to stay in a reformed PAYG or to switch to a new multi-pillar pension system in 1998. New entrants in the labor force would automatically belong in the mixed system. After challenges in the Constitutional Court, however, the arbitrary cutoff line was dropped and the final legislation allowed all workers the option to move to the mixed system. However, guarantees within the new system were provided only to workers who participated in the second pillar for at least 15 years (see below). The government's informa-

tion campaign also strongly advised older workers not to switch to the new scheme.

The mixed system is mandatory for new entrants in the labor force as of July 1, 1998. Workers who have already acquired pension rights under the current system (and those who enter the labor market before July 1998) will have the option to stay in the reformed PAYG or switch to the new system. This choice was available during the last quarter of 1997; the second pillar began receiving contributions in January 1998. Workers have two years to exercise their right to switch to the new system—until August 31, 1999. Workers who initially opt for the new system will be able to return to the reformed PAYG until September 2000. After that date, workers will be permanently affiliated either with the reformed PAYG or with the new system.[16]

The reformed PAYG ("modernized" PAYG, in Hungarian jargon) would include a higher normal retirement age of 62 for both men and women, changes in the benefit formula designed to gradually eliminate some of the redistributive elements in the formula, a new tax regime, and a shift from net wage indexation to a combination price/wage indexation formula (50-percent net wages, 50-percent consumer prices). The new legislation includes detailed transition tables for the retirement-age increase and corresponding early-retirement penalties, and a new set of accrual rates that apply to gross rather than net wage history. The retirement age begins to rise immediately but only reaches its new final state in the year 2009. The new indexation mechanism is fully implemented by 2001 while the new benefit formula and tax regime is in place by 2013. The minimum pension would be indexed in the same way as other pensions resulting in a gradual reduction in its value relative to the average wage. In its place, a social assistance program would emerge.

Many of the changes reflected the government's position that redistribution should be removed from the pension scheme. This was based on the desire to tighten the link between contributions and benefits to improve compliance and, in the view of some of the reformers, the insurance characteristics in the system. The final outcome in terms of intragenerational redistribution and fiscal impact of shifting redistribution out of the public pension scheme will depend on various factors, such as how pensions are actually taxed in the future, the contribution structure, and the extent to which social assistance replaces the current redistribution.

The essential difference between the multi-pillar pension system and the reformed PAYG scheme is that the former includes a mandatory sec-

ond pillar that replaces a portion of the PAYG scheme. Workers who decide to stay in the reformed PAYG will continue having 30 percent of their gross wages channeled to the PAYG; statutory rates will be 21 percent from the employer and 9 percent from the employee. Workers who switch to the new system will have 22 percent of their gross wages channeled to the PAYG and 8 percent to their second pillar accounts; the statutory rates will be 21 percent from the employer (channeled to the PAYG), and 9 percent from the employee (1 percent to the PAYG and 8 percent to the second pillar).[17]

The first pillar of the multi-pillar system would apply the same rules as the reformed PAYG, including higher retirement age and minimum years of service and indexation arrangements. The benefit formula is scaled down in proportion to the size of the contribution rates. Therefore, a full-career average income worker opting for the new system could expect a replacement ratio in the first pillar amounting to about 45 percent of the net average wage, equivalent to an annual accrual rate of 1.22 percent.[18] This accrual rate is roughly 74 percent of the 1.65 accrual rate, which applies for those workers who remain in the reformed PAYG scheme. This corresponds to the ratio (22/30) of the contribution rate to the PAYG paid by workers who switch to the multi-pillar scheme to the contribution rate paid by workers who do not switch. For those who switched to the new scheme, the 1.22-percent accrual rate applied for both past and future years of participation in the system, implying that anyone who switched would be effectively forfeiting approximately one quarter of their acquired rights in the process.

The mandatory contributions to the second pillar would be placed in pension funds legally structured along the lines of the existing third-pillar mutual benefit funds managed exclusively by their members. This is a Hungarian construction, differing from the trusts in the Anglo-Saxon countries (whose boards either consist of employer appointees, or have a split representation, as in Australia), or the Swiss foundations (whose boards contain employer and employee representatives in equal proportions). The third-pillar funds in Hungary frequently contain representatives from the companies or financial institutions that participated in the organization of the funds, but only to the extent that they are also members of the plan. The potential legal links between funds and the "sponsoring" institution (through the board members) seem weaker in Hungary than in Switzerland or the Anglo-Saxon countries insofar as ensuring accountability and appropriate incentives for prudent management.

The concern that the third-pillar construction was not sufficiently robust to serve as the basis for the second pillar led the government to introduce some safeguards, including mandatory internal reserves equal to at least 0.5 percent of the stock of individual accounts, a mandatory contribution to a guarantee fund (currently at the level of 0.4 percent of total contributions), and restrictions on internal asset management. Internal asset management would be allowed only if the pension fund was able to accumulate an additional layer of reserves by a prescribed date. Otherwise, pension funds would have to hire external asset managers. Pension funds would be responsible for the selection of asset managers, the administration of accounts, and negotiating annuities with insurance companies for their members. Funds with at least 25,000 members were allowed to provide annuities themselves and the supervisor could allow smaller funds to do so as well if they maintained appropriate reserves. Workers would choose their fund and would be allowed to switch one year after the start of the reform, and twice a year thereafter. Workers who participated in the multi-pillar system, but failed to choose a pension fund, would be assigned to county-level public entities created especially for this purpose. However, they would still be allowed to choose a private fund later.

The original proposal offered limited guarantees on second-pillar accounts, but was modified in reaction to public debates. What emerged were two layers of protection, which are only loosely connected. First, individuals participating in the second pillar will be entitled to annuities not less than 25 percent of the value of the first-pillar pension. This guarantee is equivalent to around 93 percent of the pension that would have been received if the worker had remained in the pure PAYG scheme, and applies to workers with at least 15 years of participation in the new system. Because of the short accumulation period, the guarantee could be triggered for workers in their mid-40s who switch to the new scheme, although the amount required to meet this guarantee should not be significant. Aside from the creation of a contingent liability, the use of an individual guarantee may add to administrative costs, especially if the guarantee is frequently monitored by actuaries. Also, it is still not clear whether the newly created guarantee fund would have sufficient resources to cover the implied liabilities, or how the behavior of market participants may be affected by the very existence of the guarantee.

In addition to this individual guarantee, there is also a minimum return guarantee applicable to all pension funds. This guarantee is constructed as follows. The supervision has defined a benchmark return,

equal to the average return of a basket of long-term government securities. The minimum return is defined as 90 percent of the benchmark. Pension funds recording returns below the minimum would have to transfer resources from their obligatory reserves to the individual accounts, so as to provide the minimum. If, on the other hand, returns are 40 percent above the benchmark, the "excess" should be channeled into reserves. This construction was inspired in the relative-return guarantee applied in Argentina and Chile, which is designed to smooth returns in the long run.[19] The Hungarian construction may have an advantage over the Argentine/Chilean construction by inducing less herding behavior. The disadvantage is that a replenishment of reserves (following a period of very low returns) may not fall entirely on the asset manager, as in Argentina and Chile, but on fund members as well (through new contributions).

Switching Strategies

In the original government proposal, workers below the age of 40 would have been forced to join the mixed system, while older workers would have been required to stay in the reformed PAYG scheme. As the reform effort progressed, however, it became apparent that a mandatory cutoff age would spark a constitutional battle over accrued rights and prove too costly to implement. These problems led the government to make the reform mandatory only for new entrants to the labor market, and voluntary for anyone with a contribution history under the old scheme. The government decided early in the process to recognize accrued rights by granting compensatory pensions, as in Argentina, and not by recognition bonds, as in Chile, Peru, and Colombia.

Applying the accrual rates of the new first pillar would recognize the rights earned under the old scheme. Obviously, these rates are lower than those implied by the current formula, a policy made possible by the voluntary nature of the switching process. Younger workers would still choose the new scheme, because the compounded returns to second pillar accounts would result in higher pensions in the new scheme under reasonable assumptions. Therefore, the valuation of past contributions in the context of a voluntary switch allowed the government a certain measure of control over the speed of the transition and the size of early transition deficits, as well as a reduction in the implicit debt. Based on reasonable assumptions, workers below ages 35-40 would find it attractive to switch under the accrued-rights formula adopted.

The government chose to target age cohorts younger than its original cutoff age of 40 after examining recent experiences in the United Kingdom and Argentina.[20] In both cases, the number of workers opting for the funded scheme was greater than anticipated, suggesting that the incentives were greater than necessary. This helped convince the government that a conservative approach to the valuation of acquired rights was the correct strategy. By targeting a slightly lower age cohort, the government expects to avoid a situation in which large numbers of older workers switch to the new scheme. At the same time, the government recognized that part of the excess switching, especially in the United Kingdom, was due to "overselling" as an aggressive sales force convinced some older workers to switch when it may not have been to their advantage. The United Kingdom experience suggested that strong supervision and good public information would be required during the transition. The government began a public-information campaign in the months leading up to implementation that included local interactive computer terminals and Internet web sites, the first of which became accessible in June 1997.

Transition Strategies

The diversion of an 8 percent contribution rate from the PAYG to private second-pillar accounts, implies a loss of revenues for the PAYG scheme. This revenue loss is likely to amount to 0.8 to 1.3 percent of GDP in the early years of the reform, depending on the number of workers opting for the new system. This figure would increase over time, due to coverage expansion in the new system, and would increase the public deficit in the absence of offsetting measures. The increase in the deficit would be roughly equivalent to the increase in private savings, implying unchanged national savings, abstracting from interest-rate effects or other effects on private savings. The reform would be primarily debt-financed, involving a replacement of explicit for implicit debt. The potential growth effects of this strategy would be very limited, and the burden of the transition would be shifted entirely to future generations (replicating the pattern of intergenerational distribution of the PAYG). In addition, the sharp increase in the official public deficit and in the explicit public debt could create complications for a country already making efforts to reduce its deficits and heavy debt burden (the total public deficit has been reduced from more than 8 percent of GDP to around 4 percent of GDP in the last two years, and the consolidated public debt in 1997 amounted to 70 percent of GDP).[21]

Pure debt-financing of the transition was rejected by the government, however, which viewed the reform as an opportunity to generate higher national savings and growth rates, and, furthermore, was aware that this objective implies more reliance on tax-financing (or expenditure reduction). At the same time, the government was pressed to present a strategy that would not imply an excessive burden on few cohorts. Whereas debt-finance would imply transferring the burden to future generations, a pure tax-finance strategy would imply a heavier burden on the current generation. A reform that struck an intergenerational balance was required.

The pension reform package passed by Parliament relies on relatively more debt-financing in the first years of the reform, followed by relatively more tax-financing in the next decade. This strategy would be implemented through a set of reforms in the PAYG that would gradually offset the deterioration due to demographic trends and produce some surpluses in the PAYG (before considering the effects of the opt-out). These include the increase in retirement age, change in tax regime, and the change in indexation rules. As shown in the next section, as these policies are implemented, the reform should produce a gradual increase in national savings over the next decade. The distribution of the burden across cohorts also would be more evenly distributed. This strategy resembles hypothetical simulations of transitions with mixed financing found in the academic literature.[22]

Simulating the Fiscal Impact of the Multi-Pillar Reform: The PAYG Reforms

It is useful to present the simulations of the reform in two stages. First, the impact of the various measures designed to improve the balance of the PAYG can be progressively assessed, and contrasted with the "no-reform" scenario. Second, the direct fiscal impact of the introduction of the second pillar can be examined in combination with reforms of the PAYG. The macroeconomic assumptions used are the same as those described in table 7.5, with the exception of a slightly higher growth rate of the labor force in the scenarios that include an increase in the retirement age.

The reforms of the PAYG scheme include a complex set of changes to the benefit formula. One important change is a shift from a net to a gross wage assessment base in 2013. The shift to gross wages as the base for calculating new pensions is accompanied by the introduction of an EET[23] tax treatment where contributions and investment returns on private pension savings are exempt from the personal income tax while

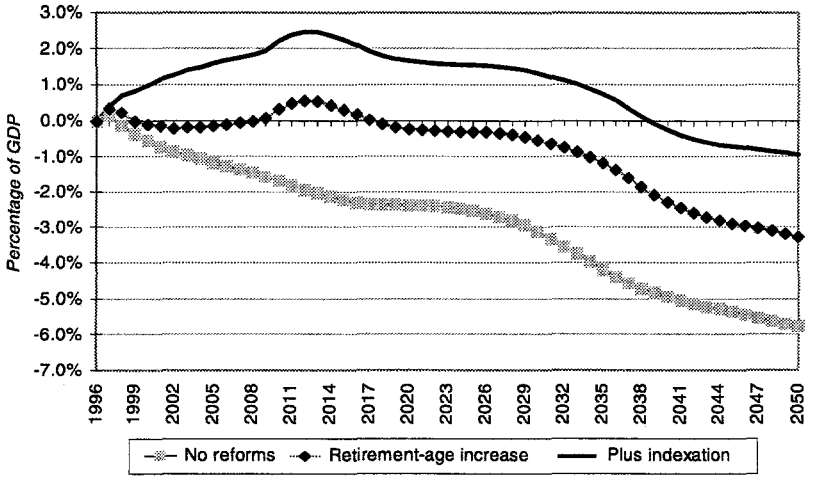
benefits are subject to taxation, albeit with a tax credit. Based on conservative assumptions regarding taxation of benefits, the combined impact of these changes is neutral with respect to the average net pension in the system. In other words, these changes do not affect the deficits projected earlier in figure 7.3.

However, the introduction of a 25-percent tax credit for employee contributions, which is meant to approximate the exemption provided in an EET environment, has an immediate impact. The loss in personal income tax revenues is roughly 0.4 percent of GDP every year. This measure clearly was part of the overall pension-reform package and would have led, other things being equal, to a higher deficit. However, the loss of approximately 0.4 percent of GDP was absorbed into the overall budgetary plan and offset with reductions in other public expenditures. In light of this policy, the effect is not incorporated into the projection results.

The changes in benefit formula and tax treatment have little or no impact on the fiscal situation. In contrast, the two most important reform measures, the increase in the retirement age and the shift toward mixed indexation, have a major impact, as shown in figure 7.6. The deficit reduction generated by the gradual increase of the retirement age is the distance between the bottom and the middle lines. This is due partly to the increase in the statutory normal and early retirement ages over time and partly due to the increase in the number of service years required to take early retirement. After 2008, the minimum number of service years required to retire at age 59 rises to 37, although penalties are applied. Meanwhile, retirement at age 62 without any penalty is possible only after 40 years of contributions (or equivalent credits) in the system. While it is difficult to predict retirement behavior in the face of the new penalties or the average number of contribution years future new pensioners will have accumulated, reasonable assumptions suggest an increase in the effective retirement age for men and women of roughly 2 and 5 years, respectively. The longer working period raises pensions given the positive accrual-rate schedule, but the higher pension is received for fewer years and some individuals continue to contribute to the scheme. The net effect is an average annual reduction in future deficits of about 1.5 percent of GDP.

While the retirement age increase has an important impact, it is only when the new indexation method is added to the reform package that the balance of the PAYG moves into an extended period of surplus. Figure 7.6 shows the impact of the original indexation proposal in which pensions in progress were to be indexed to an evenly weighted average of

Figure 7.6 ***Deficits in Public Pension Scheme with Original Reform Package, 1996-2050***

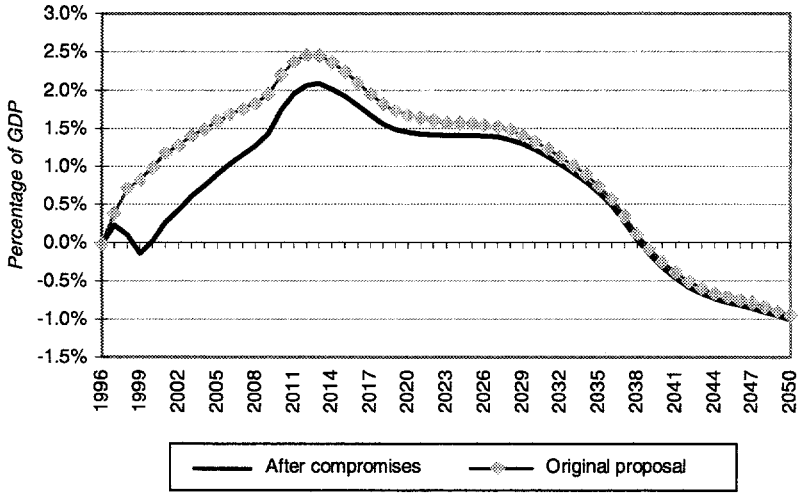


Source: Authors' calculations based on data from the Pension Reform Working Group.

price and wage growth beginning in 1998. The top line shows how these surpluses peak in 2013. After this, the baby boom cohorts whose retirement was delayed by the last increase in the retirement age begin to retire. Later, deficits re-emerge when a second demographic shock hits the PAYG scheme around 2035. With an increase in life expectancy of two years per decade assumed, the retirement age increase to 62 is not sufficient to offset the demographic developments and to maintain a constant retirement duration in the very long run. It must be stressed that the savings generated by the indexation measure rely on the growth of real wages.

The top line in figure 7.6 can be interpreted as the surplus that would have been created by the original reform package. However, as noted earlier, the original government proposal was modified in several ways that led to a reduction in savings, especially in the short run. Figure 7.7 shows the effect of the two most costly compromises, namely, the increase in widow's benefits and the delay of the indexation change. Previously, survivors (mostly women) who had acquired their own pensions were not eligible for survivor pensions unless they forfeited their own retirement pensions. After the reform, survivors would receive 20 percent of their spouse's pension in addition to their own. Moreover, the increase was

Figure 7.7 ***Deficits in Public Pension Scheme after Final Changes, 1996-2050***



Source: Authors' calculations based on data from the Pension Reform Working Group.

retroactively applied resulting in a sudden jump of around 20 percent in the pensions of most widows.

Even more important however, was the compromise on the indexation of pensions in 1998-2000 negotiated between the government and major interest groups and slightly modified in Parliament. Rather than the savings that would have resulted in the original proposal, the compromise indexed 1998 and 1999 pensions by net wage growth in 1997[24] and 1998 respectively. Assuming that inflation declines as expected, this backward indexation locked in large real pension increases in these years.

The impact of those two measures amounts to 0.5 to 1.0 percent of GDP during the first years of the transition. In present value terms, the reduction in the implicit pension debt was about 15 percent of GDP less than it would have been if the original package had been achieved. It should be noted that the decision to compromise was made in response to pressures to compensate for the decline in real pensions in the two years preceding the reform, and implies a large increase (around 6 percent) in real average pensions at the beginning of 1998, just five months before parliamentary elections. The pattern is reminiscent of the earlier increase in 1994 average pensions just prior to the last major elections (see table

7.2). In other words, it is difficult to assess the causal relationship between the overall reform package and the real pension increases of 1998-1999.[25] Whatever the case, it is clear that the political compromises focused on the very short term and that the discount rate for political calculations was high.

The final PAYG reform measures, as shown in figure 7.7, provide the starting point for the analysis of the introduction of the second pillar. To this point, the package results in a significant improvement in the finances of the PAYG during the next decade, followed by a gradual erosion of the surpluses at the end of the following decade. The pension system would record deficits again at the end of the projection period, and the elimination of these deficits would require further reforms of the PAYG, such as a further increase in retirement age (say to 65 years as in most countries of the Organisation for Economic Co-operation and Development [OECD]) or the adoption of price indexation. Nevertheless, the reform measures achieved a significant reduction in future deficits and the implicit pension debt. In fact, the reforms produced small, but significant, surpluses.

Despite the presence of these surpluses, the government never seriously gave consideration to the option of partial funding of the PAYG scheme. This alternative had at least three serious disadvantages: First, it provided for an easy opportunity to reverse the reforms through politically motivated benefit increases. Second, it would have created a new role for the public pension fund as an asset manager. There was little reason either from historical Hungarian or international experience to believe that such an arrangement would lead to efficient investment allocation or good corporate governance. At the same time, it was unlikely that it would be conducive to the type of capital market development the reform was capable of generating. Finally, the promise of higher returns in the private scheme, even after taking into account higher administrative costs, helped offset the benefit reductions in the PAYG scheme and simultaneously diversified worker risk. This positive aspect of the overall package was instrumental in generating support, especially among younger voters. In view of these and other perceived advantages, the new system was designed to divert the savings generated by the reform to competitive and privately managed pension funds referred to as the second pillar.

Simulating the Fiscal Impact of the Multi-Pillar Reform: Introducing the Second Pillar

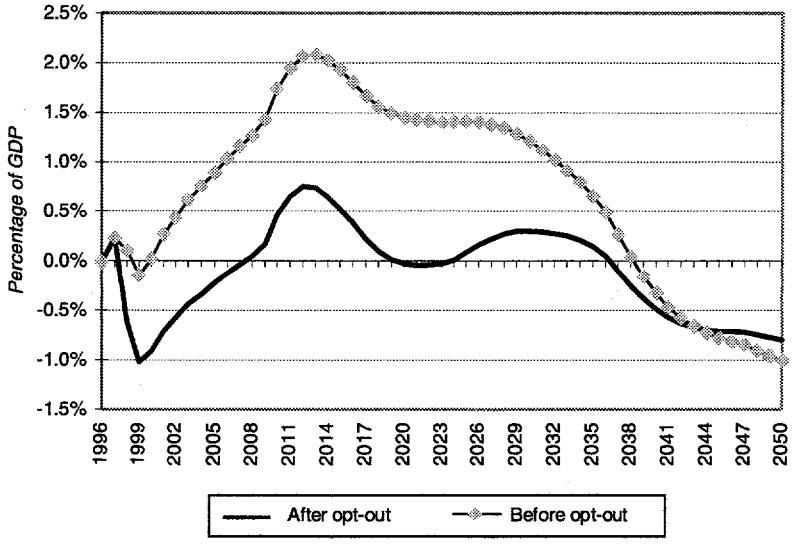
The simulations of the second part of the reform assume that all workers under age 35 will voluntarily choose to divert part of their contributions

to a privately managed funded component, and that workers entering the labor market after mid-1998 will be required to do so. Conservatively, it is assumed that from the 8-percentage-point contribution to the second pillar, roughly 7 percent of the contribution will remain after administrative costs to generate retirement income. The real rate of return on second-pillar accounts is assumed to be 1.5 percent above real wage growth in the long run, an assumption consistent with the performance of private pension funds with balanced portfolios in OECD countries (Davis 1995), with actuarial guidelines for private funds in the United States and the United Kingdom, and with the dynamic efficiency condition.[26] The 1.5-percent differential may actually be too low, considering the higher returns earned by private pension funds in OECD countries in the 1980s and 1990s, and the lower capital/labor ratio in Hungary, relative to the OECD average. The interest rate used during the annuity period is equivalent to the no-risk yield on government debt, which in turn is assumed to equal the growth rate of wages. All of these assumptions, along with the parameters of the PAYG scheme and accrued rights valuation, are consistent with a voluntary opt-out for workers in their mid-30s.

The analysis of the full reform scenario begins with an assessment of the impact of the opt-out on the PAYG balance. Figure 7.8 confirms the obvious fact that allowing workers to divert contributions to the second pillar implies an immediate loss of revenues. This loss during the first five years of the reform is approximately 1 percent of GDP, taking into account that the switching process would take place gradually throughout 1998. The PAYG deficit would tend to increase in the following years, as the revenue loss caused by the gradual expansion of coverage in the new system increased. However, the measures described above would more than offset the revenue losses caused by the opt-out, allowing a reduction in the deficit. The improvement continues even after the onset of the first demographic shock around 2009 because of the final tightening of the retirement rules, which occurs in that year. The deficits increase however, when the large cohorts whose retirement is postponed begin to retire in 2013.

The growing deficits peak around 2022 and then fall significantly as the first cohorts to receive first-pillar benefits in the new system retire (that is, those aged 35 in 1998). Note also that the difference between the PAYG balances with and without the opt-out increases until about the same time, then narrows thereafter. By 2043, the PAYG deficit with the multi-pillar system will be smaller than without the multi-pillar system. These results are driven by two factors. First, the replacement ratio in the

Figure 7.8 ***Deficits in Public Pension Scheme before and after Opt-Out, 1996-2050***

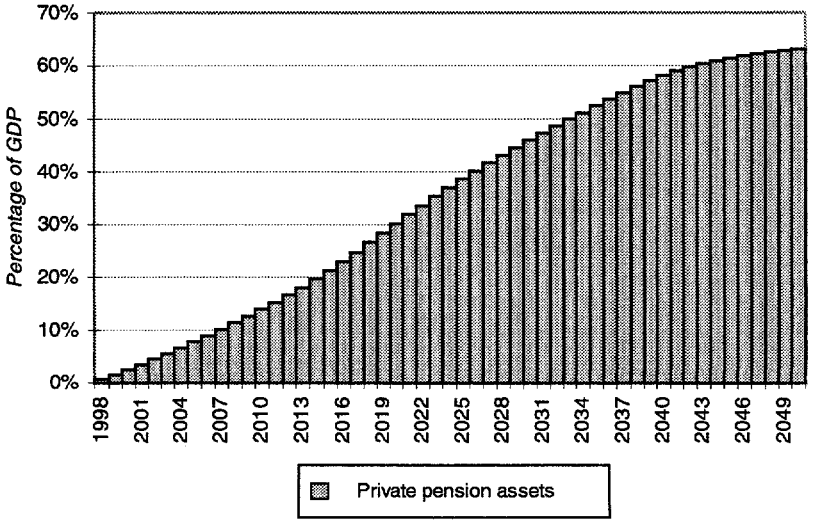


Source: Authors' calculations based on data from the Pension Reform Working Group.

first pillar of the new system is about three fourths of the replacement ratio in the reformed PAYG. Thus, the imbalance between replacement ratios and contributions created by the opt-out starts to taper off after the cohorts in the mixed system begin to retire. Second, the reform involves reduction by about one fourth in the accrued rights of workers who opt for the new system. As a result, the valuation for the years of contribution under the old system are lower than what would have been generated by the old benefit formula.

Although the opt-out would generate deficits in the PAYG, they would be accompanied by an increase in flows to private pension fund accounts. As shown in figure 7.9, the accumulated pool of long-term savings would grow very rapidly during the first 20 years of the system, given that few participants would become eligible for second-pillar benefits and the balances would be compounding over time. After 2019, however, the rate of growth of the second pillar would be tempered by the gradual outflow of annuity payments. Nevertheless, the accumulation of assets reaches an impressive 50 percent of GDP by the year 2030, a figure comparable to Chile and the United States today, and somewhat lower than the United Kingdom and Switzerland. The new private pension sector is likely to play

Figure 7.9 ***Accumulation of Assets in Hungarian Private Pension System, 1998-2050***



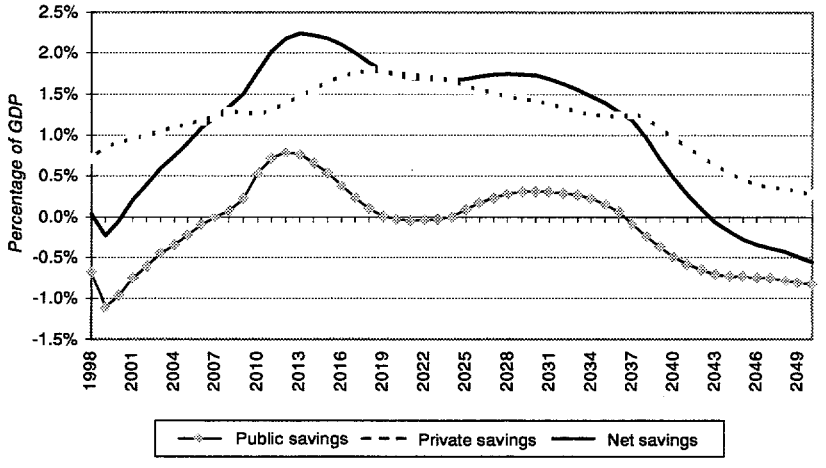
Source: Authors' calculations based on data from the Pension Reform Working Group.

an important role in developing financial markets and facilitating investment finance, with positive effects on growth.[27]

The most important positive impact of the reform on economic growth, however, will depend on the path of national savings, as the capital market effect really becomes powerful if it is combined with an increase in national savings. The increase in total savings generated within the pension system is obtained combining the public and private pension savings flows, as shown in figure 7.10. In the absence of other changes in private savings or in the public deficit,[28] national savings would increase in line with the savings generated in the PAYG, shown in the top line of figure 7.8. Total pension savings would decline after 2013, following the increase in the PAYG deficits, but would increase again after 2020, when the first cohorts in the new system begin to retire. The contribution of the pension system to national savings would decline significantly at the end of the projection period, as the scheme matured, but returns on the stock of private pension assets would make this a gradual process.

The final impact of demographic aging would cause net pension savings to become negative during the final decade of the projection period.

Figure 7.10 ***Savings in the Hungarian Multi-Pillar Pension System, 1998-2050***



Source: Authors' calculations based on data from the Pension Reform Working Group.

If long-run economic growth was increased by the reform, or rates of return to the pension funds exceeded our conservative assumptions, the pension system could continue to generate savings throughout the period. However, the decline in pension savings due to population aging is inevitable if no further action is taken. One obvious measure, given the projected increase in life expectancy, is to further increase the retirement age to maintain the ratio of working to retirement years. A shift to pure price indexation is another measure that would offset the impact of aging and improve the savings performance.

The ultimate impact of the reform on national savings would depend on the reaction of private savings to some of the individual measures of the reform, as well as on the initial growth effects of the reform. The actuarial model cannot estimate these effects, but it is possible to identify some of the changes that might occur. The increase in retirement age could induce some decline in private savings, whereas the change in indexation would imply a decrease in expected retirement income, inducing some increase in private savings.[29] The expectation of higher returns on the 8-percent contribution diverted to the second pillar could have a positive or negative effect on private savings, depending on the relative sizes of the income and substitution effects. The net impact of these three factors on private savings is, therefore, ambiguous, and would in any

case be dampened by the existence of liquidity constraints. On the whole, there is good reason to believe that the reform package would increase national savings by at least the amounts shown in the simulations.[30]

TENTATIVE CONCLUSIONS AND LESSONS FOR OTHER TRANSFORMING ECONOMIES

Hungary has started the implementation of a comprehensive pension reform, and has become the first Central European country to implement a multi-pillar system. The reform takes place in the context of a disappointing growth performance. Hungary has registered modest annual growth rates around 2 percent since 1993, whereas the other three Visegrad countries and Slovenia have recorded growth rates above 4 percent a year during the same period. The main explanation for this poor performance probably lies in the fiscal and current account imbalances that Hungary faced at the start of its recovery—around 8 and 9 percent of GDP, respectively, in 1993 and 1994. Whereas the other Visegrad countries and Slovenia have been able to consolidate the recovery of investment and output, Hungary had to undergo a drastic stabilization program in 1995 and 1996. This program was successful in reducing the fiscal and current account deficits to below 4 percent of GDP, in reducing the ratio of public debt to GDP (at around 85 percent), and averting a balance of payments crisis, but it also dampened the output recovery.

Although growth recovered in 1997, only a sustained savings effort above current levels (around 20 percent of GDP) can place the Hungarian economy on a strong growth trajectory in the medium term. The failure to address the problems of the pension system would have resulted in large pension deficits reducing the chances for an increase in national savings. Postponing reforms would have forced more abrupt changes as the baby-boom cohorts begin to retire in about 10 years.

The reform includes measures to improve the PAYG system as well as the introduction of a mandatory second pillar. The PAYG measures include an increase in the normal retirement age to 62 (up from 60 for men and 55 for women), an increase in the minimum years of service for early retirement, and a change in the indexation regime (from net-wage indexation to a "Swiss" formula involving wages and prices with equal weights). If fully implemented, these measures would generate some increase in national savings, foster the development of capital markets, and reduce the distortions in labor markets. These results would contribute to an improvement in Hungary's growth performance, although it is admittedly difficult to quantify their impact.[31]

Political compromises have weakened the original reform concept and it could be argued that the Hungarian reform does not go far enough in raising national savings and in reducing distortionary payroll taxes. Although these may be valid criticisms, it should be noted that the improvement relative to the no-reform scenario is still very significant; the reform would succeed in transforming pension deficits averaging around 3 percent of GDP into pension surpluses of more than 1 percent of GDP (public and private balances combined) by the end of the next decade, while promoting the development of capital markets. If the increased rate of return to contributions in second-pillar accounts reduced the perceived tax for forced retirement savings, this, along with concurrent reductions in the income and other social-insurance taxes (such as contributions to health care) could reduce the rate of tax evasion and the informalization of the economy. If growth performance responds favorably to the reform, and the real return on diversified private pension funds proves higher than GDP growth—in line with the experience of most OECD countries—future pensioners would be able to enjoy higher real benefits than they would have in the PAYG system. The simulations presented here, which include none of these positive effects, may understate the benefits of the reform.

To generate a greater increase in savings and allow a greater reduction in contribution rates, the reform would require more budgetary support and more efforts to replace the payroll tax with other taxes. While neither of these measures are attainable at the moment, the government has indicated that it will offset transitional pension deficits to the extent necessary to maintain its path toward meeting EU accession criteria. For the moment, however, further steps, such as a straight move from wage to price indexation, have been rejected. The recourse to other taxes also seems difficult as rates are high across the spectrum of taxes (for example, value-added tax rates of 25 percent and a top personal income-tax rate of 48 percent), and efforts are already being made to broaden tax bases and reduce tax rates.

Another constraint relates to the social objectives of the reform and the impact of reforms on the public scheme. While intergenerational smoothing can be achieved to a certain extent through mixed tax and debt-financing strategies, intragenerational redistribution presents a more complex policy challenge and is beyond the scope of this chapter. For the reform package as a whole to have a neutral impact across income groups, the new first pillar of the mixed system would need to be more redistributive than the old scheme, as the second pillar minimizes redis-

tribution. The Hungarian reformers opted instead to reduce the redistributive components in both the old PAYG scheme and the new first pillar of the multi-pillar scheme. As a result, the minimum pension will be replaced by a means-tested minimum income guarantee under a new social assistance program. Implicitly, the fiscal projections assume that the means-tested benefits simply replace the minimum pension and that the shift has a neutral effect on the poverty rate of pensioners. Whether these are reasonable assumptions will depend on the design of the new social assistance program.

The Hungarian decision to shift intragenerational redistribution outside the traditional PAYG scheme, but to retain a significant role for the public pension scheme, effectively resulted in a four-pillar system: a "zero" pillar comprising a means-tested income guarantee for the old-aged, financed from general taxes; a first pillar, comprising an earnings-related PAYG, financed entirely from contributions; a second pillar, mandatory, private and fully funded; and a voluntary pillar. When compared to other multi-pillar systems around the world (for example, Argentina, Australia, Chile, and Switzerland), this construction is unique in its reliance on an earnings-related PAYG scheme to smooth lifetime consumption for workers with relatively high incomes.

The decision to eliminate the redistributive formula within the pension system was driven by the reformers' desire to reverse the decline in the covered wage bill, which was responsible for the majority of the deterioration in pension finances during the early 1990s. Ministry of Welfare officials, in particular, believed that evasion and underreporting of earnings were linked to the public perception of an arbitrary relationship between contribution payments and benefits. The shift from the net to gross-wage formula, and the elimination of the redistributive benefit formula that provided lower replacement rates to higher income workers, were measures intended to restore the credibility of the insurance principle in the scheme and thereby, discourage the growth of the informal sector.

Arguably, the elimination of intragenerational redistribution and the creation of a strong link between benefits and contributions could have been achieved through the complete privatization of the earnings-related portion of the system. This option was never seriously contemplated, however, and the decision to retain a dominant PAYG component in the new Hungarian system (almost three-quarters of the total contribution) reflected at least three themes in the pension-reform debate. First, was the concern that greater reliance on a private, fully funded component

would imply excessive exposure of workers and pensioners to capital market risk. This line of argument, which also led to the complex set of guarantees discussed earlier, was extremely effective in a country with only a few years of experience with private financial markets. A second influential argument was related to the question of the transition deficit. This argument was sometimes driven by a real or feigned misunderstanding of the offsetting movements of private and public savings during the transition. At the same time, there was a legitimate concern that the novelty of the reform and the accounting language involved in converting what were previously implicit pension obligations into explicit ones could lead to confusion and even a negative reaction in the financial markets. Finally, there was the recurrent claim that the sense of solidarity between generations would be lost if the PAYG scheme was relegated to a simple redistributive role.

The experience of the first few months of implementation reveals a strong public support for the new pension system. By the end of April 1998, almost 900,000 people had decided to switch to the multi-pillar system. This is a much larger number than what was officially forecasted by the government, but is not out of line with experience of other countries. Although the marketing campaigns of private funds raise fears of overselling and point to the need for stricter marketing regulation, altogether the age distribution of the switchers implies that the public-information campaign has reached the targeted age groups. Out of the first 500,000 switchers, about 65 percent is aged 14-34, 33 percent is aged 35-47, and less than 2 percent is above the critical age of 47.

Since September 1997, 50 private funds have applied for a license; 20 have received full operational licenses. Due to the employee ownership of the funds and the high financial and professional requirements, employers are not playing an active role in the private pension-fund market. Instead, most second-pillar funds are sponsored by large insurance companies, banks, and already-existing third-pillar funds. Around 90 percent of all fund members are in the 5 biggest funds, and not more than 20-25 funds are expected to remain in the second pillar. As a spillover effect, the structure of the now highly segmented third-pillar market is also likely to change, as already during the first few months of the new pension system a merging process among the voluntary funds has started.

Croatia, Poland, and Slovenia are also considering fundamental pension reform. These Central European countries are also making efforts to catch up with Western Europe, while facing adverse demographic trends and pressures in their pension systems. Payroll tax rates are very high,

albeit lower than Hungary's, and pension expenditures are also large (more than 14 percent of GDP in Poland and Slovenia). Passage of the Hungarian pension reform by Parliament has demonstrated the political and economic feasibility of this type of reform in Central Europe. Poland and Slovenia enjoy more favorable macroeconomic situations than Hungary, including lower fiscal deficits and lower marginal rates of taxation across the tax spectrum. For this reason, they should face fewer constraints in designing a pension reform of the type that Hungary is implementing. However, these advantages could be short-lived if the situation is allowed to deteriorate, pushing payroll taxes and deficits higher and leading to the problems of evasion that Hungary faces today. Pension reform that reduces spending in the PAYG scheme and introduces a second pillar could allow these countries to address the aging problem while accelerating growth, enabling them to converge more quickly to Western European income levels.

NOTES

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1. According to Szalai (1991), the retirement age was reduced in 1944 but the war ended before the change took effect. However, the new Social Security Act retained the lower age limits.

2. See OECD (1995) for a discussion of special early retirement programs between 1990 and 1993.

3. The total tax on gross wages for health and pensions was 54 percent for most of the period. When the PIF and the HIF were established, the 54-percent rate was split in two parts—a rate of 30.5 (24.5 percent for employer and 6 percent for employee) to finance the PIF and a rate of 23.5 percent (19.5 percent for employer and 4 percent for employee) to finance the HIF. Adding the contributions to unemployment insurance payroll taxes represented 60 percent of the gross wage, or more than 40 percent of labor costs, defined as gross wage plus employer contributions—among the highest in the world.

4. The covered wage bill was estimated from information on contribution revenues and the contribution rate.

5. This variable is estimated assuming that the labor share of mixed income is equal to the labor share of GDP excluding mixed income.

6. The growth of the informal sector during this period (estimated to have reached 30 percent of GDP) may have also reduced total measured GDP and the labor share, as informal activities tend to have a high labor component.

7. Annual wage history since 1988 is taken into account for the determination of new pensions, but wages are only revalued to take into account wage growth up until two years before retirement. Interestingly, this also seems to be the practice in the United States.

8. For a description of these arbitrary effects, see Kálmánné, Réti, Rezmovits, and Toldi (1995) and Simonovits (1997).

9. The GDP growth rates in table 7.5 are lower than those experienced by Hungary between 1950 and 1989, when annual growth averaged more than 4 percent (Augusztinovics 1993).

10. Expenditures exclude items covered under the central budget and administrative costs. Including administrative costs would add 1 to 2 percent to total expenditures.

11. It is very unlikely that private savings would increase so as to offset the increase in pension deficits. On the contrary, private savings could actually decline in the long run, due also to the aging of the population. See Auerbach (1989) for an analysis of four OECD countries, and Börsch-Supan (1995) for an analysis of the German case.

12. This chapter adopts the terminology proposed by the World Bank (1994), whereby the first pillar refers to a PAYG, publicly managed pillar, the second pillar is mandatory, fully funded, and privately managed, and the third pillar is voluntary, also fully funded and privately managed.

13. The average age of parliamentarians in Hungary is around 50. The average age of "yes" voters was approximately 48 compared to an average age of 57 for "no" voters. Available data show that even after taking into account party affiliations, older parliamentarians were more likely to vote against the reform than younger members.

14. The retirement age and rules of early and pre-retirement were actually changed in 1996, before the main reform.

15. It is important to note that the question of disability reform was postponed despite the fact that, earlier, it had been considered an important part of the reform package.

16. The decision to switch to the mixed system could be exercised beginning September 1997; by the time of this writing, several thousand people had already done so. The first contributions to the second pillar only began to flow, however, in January 1998.

17. This contribution rate structure follows a two-year transitional period. For those who switch to the new system, the employee contribution to the second pillar will be 6 percent in 1998, 7 percent in 1999, and 8 percent from 2000 on. The overall contribution rate would remain unchanged as employer rates are reduced.

18. Workers who became disabled during the accumulation period would have the choice of remaining in the mixed system or transferring their second-pillar balances back to the public scheme. In the latter case, they would receive full disability benefits, just as someone who remained in the PAYG system.

19. See Acuna and Iglesias (1992), Vittas and Iglesias (1992), Vittas (1995 and 1996), and Rofman (1995 and 1996) for descriptions of guarantees in the Chilean and Argentine systems.

20. See Disney and Whitehouse (1992) and Whitehouse (1998) for an analysis of the opt-out experience in the United Kingdom, and Rofman (1995 and 1996) for a description of the Argentine experience. Whitehouse (1998) provides a switching analysis for Hungary. Holzmann (1997) presents a general framework.

21. It is not clear to what extent financial markets already factor in public-pension liabilities that are not reported in official statistics, although it is interesting to note that Hungary's credit rating improved in the months following passage of the pension reform legislation. While there is evidence that unfunded pension liabilities are reflected in the market's valuation of private firms (Bulow, Morck, and Summers 1987), this line of research has not been extended to the public sector. If the market fully recognizes the existence of these liabilities, the "transitional deficit" should not affect the government's cost of borrowing. There is growing awareness of the existence and magnitude of public-pension liabilities, particularly in the context of the recent debate over the European Monetary Union. Recent studies have quantified the pension debt for OECD (IMF 1995 and OECD 1994) and non-OECD countries (Kane and Palacios 1996).

22. Kotlikoff (1995) simulates a reform involving full debt-finance in the first five years of the transition, and tax-finance thereafter. Such a strategy would not diminish the lifetime utility of current cohorts and would increase the lifetime utility of future cohorts. It should be noted that the model utilized is a model of exogenous growth that may underestimate the growth effects of the reform, and the impact of higher growth on the welfare of current and future generations. Corsetti and Schmidt-Hebbel (1995) examine the possible growth effects of a pension reform under an endogenous growth model.

23. EET stands for Exempt contributions, Exempt investment returns, and Tax benefits. See Dilnot (1992) and Davis (1995).

24. Pension benefits in 1998 had to be increased by net wage growth in 1997 minus 2.5 percentage points. However, the decline in inflation may imply a sizeable real increase in pensions in 1998.

25. The indexation parameters for 1998 and 1999 were chosen very deliberately and were the result of many hours of negotiation, including a 13-hour meeting of the Interest Reconciliation Council just prior to parliamentary submission.

26. The dynamic efficiency condition is usually derived in the absence of risk (see Blanchard and Fischer 1989); Barro and Sali-I-Martin 1995), whereas the return on private funds contain a risk premium. However, see Feldstein (1995a and 1995b)

for an analysis of the U.S. case that considers risk factors. See also Kotcherlakota (1996) for an analysis of how much risk is contained in the equity premium.

27. See Levine and Zervos (1996) for a cross-country analysis and Holzmann (1996) for an analysis of the Chilean case.

28. The government intends to offset part of the loss of revenues during the first three years of the transition through lower central budget deficits. To the extent that this occurs, the savings from the reform will be greater than those shown in figure 7.10.

29. For a review of these effects, see Kotlikoff (1989).

30. If the reform enhances growth, there could be some additional endogenous increases in private savings (Schmidt-Hebbel, Servin, and Solimano 1996).

31. Sachs and Werner (1996) utilize an endogenous growth framework to argue that the adoption of multi-pillar systems would help Central European countries converge more rapidly to the income levels of Western Europe, but do not provide direct estimates of this factor. Levine and Zervos (1996) provide evidence that long-run growth is positively affected by capital-market liquidity, but it is difficult to establish a quantitative relation between pension reform and capital-market liquidity.

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8 Reforming the Health Care System: The Unfinished Agenda

Éva Orosz, Guy Ellena, and Melitta Jakab

Health reform has been embedded in Hungary's socioeconomic transition over the past seven years. As in other Central and Eastern European countries, transition in Hungary has carried significant social costs, including growing unemployment and deepening social inequalities. Paralleling individual freedom, the privatization process and increased competition have led to reconsidering the role of the state and the redistributive function of the state budget. Taking into account this rapidly changing context, governments have struggled to initiate and manage health-care reform processes founded on principles similar to those in Western Europe, namely cost containment, equity, efficiency, and quality (Maynard 1994).

The framework for health-care reform has also been much affected by the heavy emphasis put on comprehensive public finance reform after 1994. As the central thrust of public finance reform was to enhance the efficiency of public-sector operations, structural reforms of the Hungarian health-care system have aimed at restoring financial and fiscal balance by addressing the main causes of inefficiency in the health-care delivery system and overhauling governance and institutional arrangements.

With these broad objectives in mind, numerous important changes have been initiated. However, as health reform constitutes an intricate multidimensional process—including open policy debates to define reform programs and power struggles among sector stakeholders over redistribution of responsibilities—health policymakers have often lost sight of the reform objectives. Feeling forced to compromise between the need to develop a long-term strategic vision and short-term political requirements, they usually have opted for the latter. As a result, most reform steps have not been sufficiently analyzed or fully implemented, or have been carried out without needed complementary actions. This has prevented the emergence of the needed synergies and ultimately has much reduced expected benefits. In sum, the impact of these reform attempts has remained at best insufficient, and sometimes ambiguous or contradictory, leaving an unfinished and unfortunately confused agenda for the next generation of health policymakers.

This chapter takes stock of Hungary's financial, structural, and institutional health-sector reforms since the early 1990s, and attempts to draw lessons to clarify the challenges ahead and set priorities for action. Following a brief presentation in the first section of the health-sector's historical background, the second section focuses on health-care financing and analyzes the shift from central budget-based to health-insurance-based financing. The third section moves to the production side and describes attempts to reform the structure and incentives in the health-care delivery system; a fourth section outlines the changes initiated or contemplated in sector governance and the institutional setting.

BACKGROUND

Hungary's health indicators were so low by the mid-1990s that there is no exaggeration in referring to an epidemiological crisis. Since the mid-1960s, male life expectancy—especially middle-aged men—has been decreasing—to 65.2 years in 1995 while women's life expectancy increased only slightly—to 74.5 years in 1995. This is 8.6 years lower for males (5.6 years lower for females) than in neighboring Austria. A dramatic toll is taken on the middle-aged male population, with only half of 35-year-old males having a chance to reach age 70 (against 75 percent in Sweden), a probability of surviving that was slightly worse in 1994 than in 1920-21, and mortality rates among the highest in the developed world (CSO 1996). Age-standardized lung-cancer rates for males are the highest ever recorded, exceeding peak rates in Western Europe in the 1970s. While at a lower level, the epidemic among females is growing dramatically. Death rates from liver cirrhosis increased seven-fold over the last 25 years to reach 80 per 100,000 inhabitants in 1995. Death rates from cardiovascular diseases have risen, albeit at a lower pace, since 1992.

Differences in mortality and morbidity indicators among Hungarian regions seem to parallel the European East-West gap (Bobak and Marmor 1996), most likely reflecting differences in economic development and income. A similar gap differentiates Hungarians according to their educational status. Male life expectancy at age 30 is 10.8 years (44.5 years) longer for those with 15 or more years of education than those with less than 8 years (33.7 years) of education (Hablicsek 1995). Differences by sex are very significant and increasing, and marital status seems also to be a determining factor for males: married men, aged 30, have on average an additional life expectancy of 39 years, against only 30 years for singles.

Inheritance and Transition: Main Problems and Reform Steps

The problems experienced by the health-care system since the beginning of the economic transition result from the combination of three sets of factors:

The health-care system inherited the long-lasting problems of the socialist era (Losonczi 1989; Orosz 1990; Preker 1996; and Szalai 1986). These problems included poor and deteriorating health status and inadequate public-health-policy responses to cope with the epidemiological transition and a rapid emergence of non-communicable diseases; inefficient allocation of public resources tied to ineffective and highly-centralized management; and excess delivery capacity, in particular in the acute hospital sector. Inefficiencies were exacerbated by growing shortages in the resources needed to operate and maintain these large facilities. As a consequence of decreasing income in real terms for health personnel, an informal dual structure developed, characterized by growing direct under-the-table payments by the population, the "gratitude money" phenomenon.

Additional problems emerged—or became more acute—with the economic transition (Orosz 1992; Ho and Orosz 1994; Kornai 1998; and Preker and Feachem 1995). The most characteristic were increasing difficulties in generating incremental resources for the health sector, due to low or negative economic growth, and the ensuing tension between resources and health expenditures. With health-specific costs raising rapidly, distorted resource generation mechanisms imposed a growing burden on a shrinking formally active and contributing population, while health benefits remained available to the entire population. Soaring pharmaceutical expenditures resulted from the combination of persisting patterns of high prescription and consumption and a distorted pharmaceutical market. While the national production system was slowly adjusting to the loss of the privileged Eastern bloc market, it was subject to fierce challenge from Western competitors.

Health reform, itself, produced some negative compounding effects. The health-care financing methods introduced in 1993 generated incentives for health-service providers to perform inefficiently and led to widespread bending of the new financing rules, such as false performance reporting. The introduction of new financial and professional control procedures was slow and fragmented.

Coping effectively with these intertwined problems required a well conceived health-sector reform strategy. Specifically, it demanded the

Box 8.1 ***Inheritance: The Socialist Health-Care System***

Health-Care Financing

- Centrally administered financing: yearly allocations for health were part of the annual bargaining over the state budget.
- During the 1960s and 1970s low priority was given to non-productive sectors—including health.
- No expansionary period (as in many Western countries) when health expenditures grew 40 to 60 percent faster than the GDP.
- Health expenditures never exceeded 4.5 percent of the GDP until the late 1980s. Expanding physical and human-resource capacities came at the expense of low salaries, lagging technology, and decaying infrastructure.

Health-Care Delivery System

- Disease prevention. The system was very efficient in controlling and preventing the spread of infectious diseases due to the well-developed network of sanitary and epidemiological stations and high immunization rates on par with Western countries. The socialist health-care system, however, was unable to respond to the challenge of changing disease patterns increasingly characterized by non-communicable chronic diseases; prevention and health promotion remain neglected, with a low priority on the public policy agenda.
- Primary/outpatient care. Primary care delivered by district doctors was characterized by a low level of services consisting mainly of prescription and referral. Outpatient specialist care was over-specialized. As a result, the system lacked generalists performing gatekeeper functions to the inpatient care service.
- Inpatient care. As a result of weak primary and outpatient care, and the inpatient care-oriented investment policy of the socialist governments, hospital capacity grew to 10 beds and 3.2 to 3.4 physicians per 1,000 inhabitants by the early 1990s. The number of beds determined the prestige and importance of hospitals —and their physicians.
- Provider payment. Physicians were salaried, and hospitals were financed based on the budget of the previous year adjusted according to the increase in the number of beds and physicians. Hospitals were, therefore, mainly interested in increasing their capacity.
- Pharmaceuticals. In the division of production among the socialist countries, Hungary was responsible for producing pharmaceuticals for the entire bloc, and the Hungarian pharmaceutical industry was well developed. Western drugs were not allowed to be imported into the socialist countries, but drug firms handed over licenses for some important drugs to maintain a presence in these markets. As a result, quality medicines at centrally suppressed prices were widely available and promoted an over-reliance on medication.

Institutional Framework

- In the socialist system the distribution of financial resources rested primarily on the coordination and informal pacts between the Ministry of Finance, the National Planning Office, the Ministry of Health and Social Affairs, and the county councils. But informal agreements between an influential circle of doctors and the main authorities were most instrumental. The distribution of investment funds was the task of the National Planning Office, while determining increases in operating costs, and the provision of supplementary operating resources, was the duty of the Ministry of Finance. The Ministry of Health and Social Affairs always assumed a secondary role in determining financial resources for health care.

design and development of specific programs, a clear governance framework, skilled and committed health-care management and administration, and support from health professionals and the public for the reform goals. Unfortunately, few of these elements could be assembled at any given time. There has never been consensus—even within successive governments and the ruling political parties—on a vision and basic reform alternatives. Health-care administration has remained weak, mostly because of the lack of strategic drive, implementation plans, or public information, and reform has not benefited from support from the population of health professionals.

While numerous important changes have been initiated in the 1990s, the final outcome and impact of the reforms have fallen short of expectations. The most significant health-policy decision was the shift from central financing to mandatory health insurance, followed by early steps in reorganizing primary care, the introduction of performance-based financing, and the timid launching of a hospital restructuring process. The shift to social insurance raised expectations of rational and secure financing, as opposed to the previous weak position of the health sector in the yearly bargaining over the state budget. Health administrators expected that performance-based financing would trigger an automatic adjustment process that would progressively remedy the service-delivery structural and oversupply problems. Health professionals and physicians were anxious for rapid improvement in their working conditions and incomes.

None of these expectations was fulfilled, as it soon became obvious that reform goals and implementation features were diverging. In addition, by the mid-1990s, the initial measures started to exert side-effects as new pressures from the economic transition emerged. As a consequence, health policy and health policymakers have lost credibility in the eyes of professionals and the public, further undermining the objectives and goals set in 1989-90.

In 1995-96, the policy debate sharpened with the overall public finance reform. Broadly speaking, the main issues discussed—more than debated—were the size and mechanisms of public financing. The main question was whether future financing of the sector was to remain mainly public with some additional resources being mobilized from private sources (through increased but limited co-payments and the development of complementary voluntary health insurance) or if more radical changes were to be considered. The possibility of radical change was based on a hypothesis that public financing would continue to decline as share of

total expenditures, so that the bulk of expenditures were to be progressively shifted to "private mechanisms." None of the concerned institutions ever took a clear or strong stand for or against one option or another. However, one can safely assume the following: as the Ministry of Welfare had represented—and still represents—the omnipotent public part of the health-care system, any attempt to reduce its role by introducing decentralized mechanisms for health-care financing and delivery met strong resistance. Similarly, because it is currently the only "official" financer of the system, therefore not bearing any risk of competition, the Health Insurance Fund (HIF) developed a parallel opposition to any serious reconsideration of the public/private mix prevailing in the health-care financing system. These positions were not always openly presented, but were advocated under an "efficiency" objective of containing costs and increasing the efficiency of the health-care system by developing a service structure—an institutional, financing, and information system—that guarantees that the money spent on health care contributes to the greatest possible improvement in health status.

On the other hand, the Ministry of Finance framed its support for a more balanced public/private blend under its public finance rationale and the necessity of reducing fiscal imbalances: it felt the main objective of the reform was to reduce the public part of health expenditure. A much larger share of the financial resources needed for health care would be provided from private sources through widespread introduction of patient fees, and a shift to private health insurance as the main vehicle rather than as a complement. This approach would limit public financing to rather basic services and health care for the poor. This debate remains open in the absence of thorough economic analysis providing support for either side.

Alan Maynard's description of political debates holds true for the Hungarian health system to a great extent: "The political debate everywhere consists of those adhering to viewpoint A (market supporters) criticizing the *actual* performance of the health system they oppose, for example, the National Health System, [the government-administered, publicly funded health care system of the United Kingdom], and advocating the *ideal* characteristics of the health system they support (the market). Those adhering to viewpoint B (the egalitarians) criticize the *actual* performance of the health system they oppose (the market) and advocate the *ideal* characteristics of the health system they advocate (the National Health System)" (Maynard 1994).

Box 8.2 *Health-Care System in Transition: Summary of the Reforms*

Health-Care Financing Reforms

- The switch from tax-based funding to funding through *compulsory insurance* (1990) and the establishment of the HIF (1992) have been accompanied by chronic financial imbalance of the new institution due to economic recession, lack of definition of revenue sources to cover non-active population groups, benefit packages not matched by resources, and lack of mandate and capability on the part of HIF to act as a purchaser of services.

Reforms of the Health-Care Delivery System

- A national health promotion program was announced in 1987 and the National Institute for Health Promotion created. It had little influence, however, and health policy and reforms have largely focused on the structure and workings of the curative sector; disease prevention has been neglected and has occupied a relatively low priority on the public-policy agenda.
- An improvement of primary care was attempted in 1992 by renaming district doctors "family physicians" and later introducing specialty training at the medical universities. However, physicians continue to offer mainly prescription and referral services in the absence of proper equipment and national guidelines.
- A reduction in excess hospital capacity was attempted in 1995 through a centrally administered mechanism that failed to achieve its objective, while creating tremendous opposition in the sector and the population. Excess physical and human-resource capacity in the health-care system, and particularly in acute hospital care, continues to be a major cause of inefficiency, of financial shortages, and ultimately of poor-quality services.
- Performance-based remuneration was introduced (capitation payments for primary care, fee-for-service for outpatient care, and a diagnosis-related group [DRG]-type scheme for inpatient care), while a ceiling at the national level was set. None of the new methods of payment is without flaws. The capitation system for family physicians does not provide sufficient incentive to improve the content of family medicine. Overall, inpatient care is still favored over outpatient care.
- Liberalization of the pharmaceutical market quickly led to an explosion of the availability of products and prices, and ultimately to a sharp increase in public expenditures. While significant efforts have been made to bring down expenditures on pharmaceuticals, measures have largely concentrated on reducing reimbursement rates and have not been successful in altering behavior patterns of physicians or patients.

Institutional Setting

- Ownership of health facilities was transferred to local governments in 1990. However, this transfer of ownership provides local governments merely with a title, as it is not matched with real responsibilities and powers over financing and regulation. Moreover, lack of adequate funds has prevented maintenance and upgrading of buildings and equipment.
- The Social Insurance Fund was separated into health insurance and pension funds in 1992. Self governments were created in 1993. The roles, responsibilities, and powers of the new institutions have not been clarified, which is manifested in constant power struggles between HIF and the Ministry of Welfare for health policy, between HIF and the Ministry of Finance for financial control, and even between the HIF administration and its self-governing body.
- Legislation on the Employment of Public and Civil Servants passed in 1992 set restrictive conditions on public-sector employment and left little flexibility to pass on rewards (or punishments) from the facility level to individual physicians.
- Private practice was legally authorized in 1989. Without adequate separation of public and private practice, the current conditions have provided excellent conditions for physicians with private practice to continue to act as free riders on the public system (diagnostics, laboratory services, facilities utilization, etc.).

HEALTH-CARE FINANCING

Analyzing health-care financing trends reveals that it is unjustified to attribute the financial imbalance of the health-care system to a loss of control over expenditures. The systematically reoccurring financial imbalance is the manifestation of an incomplete shift to health-insurance-based financing and persistent structural problems. The move from tax-based funding to funding through compulsory insurance in 1990, and the establishment of the HIF in 1992, have not been accompanied by a clear definition of the revenue sources to cover non-active population groups. An affordable benefit package matching available resources has also never been specified, nor conditions established for the HIF to gradually gain the autonomy required to act as an informed purchaser of services. External macroeconomic pressures linked to economic recession added to this and reinforced the scope and acuteness of structural financial imbalances. This section provides an overview of the sources and trends of health-care financing in Hungary, analyzes the structural causes of the persistent financial imbalance, and highlights the issue of the low level and poor allocation of investment resources.

Sources and Trends of Health Financing

Hungary allocates more than 8 percent of its national income for health services. There are three main sources for funding health-care services: social insurance contributions paid by employers and employees, general revenues from the state budget, and direct out-of-pocket payments. Public health activities are financed from the state budget, while funding investments is the responsibility of state and local governments that own a large share of health facilities. Social insurance contributions are among the highest in the countries of the Organisation for Economic Co-operation and Development (OECD). In 1993 employer contributions amounted to 44 percent of gross wages and employee contributions to 10 percent of which 19.5 percent and 4 percent, respectively, were allocated for health insurance. Employer health contributions gradually decreased to 18 percent in 1996, and to 15 percent plus a flat HUF 21,600 (Hungarian forint 21,600) per year/per-capita payment in 1997. Health insurance covers health-care services, a part of pharmaceutical expenditures, and sick-pay benefits and disability pensions under retirement age. Imposing a heavy burden on labor cost, these high contribution rates encourage informal employment, underreporting of earnings, non-payment of assessed contributions, and act as a disincentive to formal employment creation. Two main elements of the direct payments are pharmaceutical

Table 8.1 ***Health Expenditures as Share of GDP***

Item	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*
Public expenditures	4.9	5.4	6.4	6.7	6.7	7.2	6.5	6.2
HIF	3.9	4.6	5.3	5.4	5.4	5.8	5.2	5.3
of which curative services	2.8	3.6	3.9	3.9	3.8	3.9	3.5	3.5
of which pharmaceutical expenditures	1.1	1.0	1.4	1.5	1.5	1.6	1.5	1.5
State budget (recurrent)	0.4	0.3	0.5	0.7	0.7	0.8	0.9	0.6
Investments	0.5	0.5	0.6	0.6	0.6	0.6	0.4	0.3
Private expenditures	0.8	0.9	0.9	0.9	1.0	1.1	1.3	1.3
Private co-payments on drugs	0.2	0.3	0.3	0.3	0.4	0.5	0.7	0.7
Gratuity payment	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total health expenditures	5.7	6.3	7.3	7.6	7.7	8.3	7.8	7.5

Note: Calculations based on data by HIF, the Ministry of Welfare, and the Ministry of Finance. (Data before 1992 do not contain administrative costs of HIF.)

co-payments and gratuity money. Gratuity money flows directly to physicians and, to a lesser extent, other health professionals, and constitutes a serious distortion of official financing methods.

Comparing trends in health-care expenditures in Hungary and Western countries highlights fundamental differences. While between the early 1960s and mid-1970s Western countries experienced an expansionary phase with expenditures growing much faster than the gross domestic product (GDP), the Hungarian health-care system saw no similar expansion during the socialist era. The share of GDP going to public-sector health expenditures remained low, growing slowly from 3 to 3.5 percent during 1960-80 to 4.5 percent in 1989. The lack of this modernization period still affects the system. There is no contradiction between this and the fact that there has been a great increase in the number of the hospital beds and physicians, as expansion of these inputs took place at the expense of low salaries for medical manpower, lagging medical technology, and poor infrastructure maintenance.

Looking at trends in health expenditures over the transition period, the following phases can be identified:

- Public-sector health expenditures increased substantially as a share of GDP between 1989 and 1991, from 4.9 percent to 6.4 percent of GDP (table 8.1). Two factors account for this evolution: real GDP decreased substantially, and, in 1990, funds allo-

cated to the health sector grew atypically due to the shift from state budget financing to the health-insurance scheme.

- During 1991-93 the share of GDP going to public-sector health expenditures remained barely constant, implying a contraction in health-care resources as GDP shrank. Presumably as a side effect of election year politics, 1994 is an "outlier" as the real value of health expenditures and their share in GDP increased.
- In 1995-96, the share of health expenditures in GDP and real values decreased. Funds allocated for ambulatory and inpatient care fell 25 percent during 1990-96. Inflation in health care was above average, thus the decrease in the real value of expenditures for ambulatory and in-patient care between 1990 and 1995 was, even more significant (about 43 percent). The drastic cut contributed to the growing debts of several hospitals and triggered counter-reactions: trade unions pressed for higher wages, hospitals for consolidation. This led to supplementary money being channeled into the system of service provision; this money was not, however, distributed as a function of performance. Ultimately, curtailment of expenditure ran contrary to increased efficiency and genuine reforms.

The distribution of HIF proceeds between expenditures on curative services and pharmaceutical expenditures changed markedly during 1990-96 from 76.7:22.2 to 70:30. By all international comparison, drug expenditures were already high in 1990—and public resources devoted to pharmaceuticals have increased from 1 to 1.5 percent of GDP. Including patient co-payments, pharmaceutical expenditures reached 2.2 percent of GDP in 1996.

In the early 1990s the share of health expenditures in GDP was high for Hungary's level of income, although it may not have been sufficient to meet social needs. A United Nations study (United Nations 1997) of European GDP in 1993 shows that the difference in per-capita consumption of medical care between Hungary and Austria is larger than the per-capita total domestic consumption (Hungary reaches 40.4 percent of the Austrian level of total domestic consumption per capita, while it is only 35.7 percent for medical-care consumption).

This conflict, basically rooted in the low level of economic development in Hungary, was further aggravated by the transition to a market economy, and the sharp decrease in GDP. This contradiction between macroeconomic needs and the requirements of the health sector cannot

be solved in the short run. As a consequence of a modest increase in GDP and a reduction (in real terms) in health expenditures, the share of health care in GDP decreased in 1995 and 1996.

Not discarding the structural imbalance issue, a careful analysis suggests that the Ministry of Finance (and some politicians and the media) have overestimated the extent of the HIF deficit. In real terms, the deficit has decreased sensibly during 1992-95. In 1995, when dramatic statements were made about the *increasing* HIF deficit, it reached 0.4 percent of GDP, down from 0.7 percent in 1992. The primary cause of the increased deficit in 1996 was the decrease in the health-insurance contribution rate by 1.5 percent (from 19.5 to 18), not an increase in expenditures; as noted above, the real value of the expenditures decreased. If the reduction in the health-insurance contribution rate had not occurred in 1996, the deficit of HIF would have been 0.3 percent of GDP, a further improvement compared to 1995.

The Incomplete Shift toward Health Insurance

During the transition the health-insurance system experienced systematically reappearing deficits despite high contribution rates and cost-containment measures. The deficit has been—directly or indirectly—due to factors outside the health sector:

- Shrinking active population. Due to the aging of the population and the emergence of mass unemployment, the number of contributors to HIF has been decreasing. Between 1990 and 1994 the economy lost 28 percent of its active-age wage earners.
- Contribution payment evasion. The health-insurance burden is not equally distributed across active population groups, but falls almost entirely on salaried employees. This has led to public resistance to paying contributions, an eroding contribution base, and significant losses of potential contribution revenues. Without doubt, in a social insurance system, salaried employees will have to pay more than they receive in order to maintain solidarity. Achieving this principle in a sustainable manner, however, requires not overburdening those who are the easiest to charge— the salaried active population—which clearly happened in Hungary. The most striking disparity is the extent of evasion by the self-employed: in 1995, the per-capita total contribution of the self-employed was one fifth that of salaried employees. Thus, the cost of health-care provision to the self-employed is not covered, and there is no intergenerational and interpersonal redistributive

payment by the self-employed toward the health expenditures of pensioners, unemployed, and family members. Evasion takes several forms, primarily underreporting private-sector earnings, non-payment of assessed contributions in both private and public sectors,[1] and increased use of non-taxable forms of remuneration, such as food, clothing, and fuel allowances.

- Ill-defined revenue sources for non-active population groups. Until 1997 the central budget paid a lump-sum contribution on behalf of non-active population groups, primarily those receiving social assistance. This amount was far below what would be reasonably calculated as average per-capita health expenditures.
- Non-affordable benefit package. The switch to social insurance was not preceded by careful analysis of the benefits package affordable at the expected rate of revenues. On the expenditure side, problems manifest themselves in different ways. As curative-preventive services have fixed spending caps, tensions are occurring at the micro-level—illustrated by the accumulated debt of hospitals to their suppliers. On the other hand, pharmaceutical reimbursement, sick pay, and disability pensions are open ended. Expenditures on these items have exceeded budgeted values every year, contributing to HIF deficits (the only exception was spending on sick pay in 1996).
- Lack of autonomy for HIF to act as an efficient purchaser of services. In the present system, institutional responsibilities are not clearly defined, which has prevented HIF from becoming a real purchaser of health services. In countries where the national insurance fund becomes a purchaser of services, it is granted the authority to select and contract providers (and define the services it wants to buy for with its available funds), rather than being obliged to finance all existing structures. This makes the directing bodies of such funds responsible and accountable for their financial performance.
- Absence of medium-term revenue planning. In the absence of appropriate medium-term planning and restructuring of the revenue base, the attempts of the public finance reform to reduce labor cost by reducing contribution rates resulted in further deterioration of HIF's financial balance. A broader revenue base was expected to offset the loss of revenues from reduced contributions. Possible outcomes, however, were not appropriately assessed and the HIF financial imbalance remained. By mid-1997

it had been decided to reverse some of the measures taken in the previous two years due to constitutional problems, implementation difficulties, and undesirable side effects. Ad-hoc measures without appropriate background work and inadequate implementation arrangements have reduced the credibility of health policymakers and signaled lack of direction.

Financing Investments

Management of capital assets lacks economic rationality and sensible public policy. Investment decisions continue to be influenced by interpersonal networks and lobbying power. Even though health-care institutions calculate amortization and net asset value for the purpose of financial reporting, these calculations are only informative and are not used for economic calculation, as amortization is not considered. The largest source of capital investment in the health sector has been the central budget. Institutional management, thus, neither perceives nor bears the capital costs of service provision. This has resulted in collective irresponsibility (also characteristic of the former system): not a single player in the system perceives that superfluous and unused fixed assets significantly raise the cost of services. Superfluous and under-used investment capacities draw resources from other areas; the same amount of investment could, given rational resource allocation, ensure far better quality and cost effectiveness.

The system places a heavy and unfair burden on the local authorities that own the institutions. All hospital development and maintenance costs are born by the local authorities, despite the fact that the facilities provide services to the population of several towns and settlements. Experiments with shared maintenance have failed. While a detailed proposal—linking

Table 8.2 ***Public Investment 1992-97*** **(HUF millions)**

Item	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Total public investment	20,285	31,200	23,100	27,800	32,635	27,809
of which local government	14,285	22,480	17,000	18,302	19,100	20,100
of which central budget	6,000	8,720	6,100	9,498	13,535	7,709
Public investment at 1992 prices	20,285	25,469	15,873	14,901	14,164	10,228

Source: Ministry of Finance, Budapest.

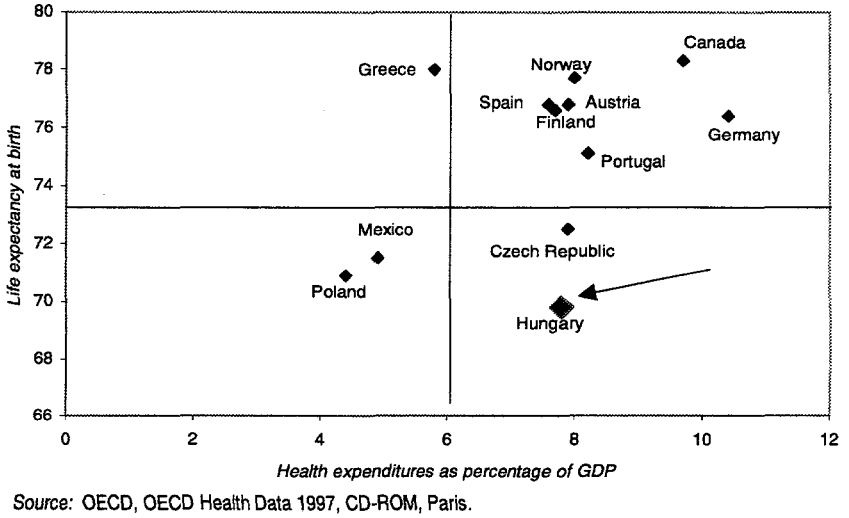
funds for asset replacement (the amortization ratio) to performance fees, which includes the mandatory accumulation of an amortization fund on tied-up assets (Bordás 1994)—was hammered out years ago, it never has been put into effect.

REFORMS OF THE HEALTH-CARE DELIVERY SYSTEM

The Hungarian health-care system has failed to provide a cost-effective response to the needs of the Hungarian population. Figure 8.1 shows that Hungary does not compare favorably with other middle-income and industrialized countries. The comparison improves if health outcomes are measured in terms of infant/maternal mortality, but the general trend remains valid: health spending in Hungary is on par with spending in countries with significantly higher national income, but health outcomes are lagging behind even those observed in other former socialist countries at a similar stage of transition.

While recognizing that there are many factors underlying population health status, this pattern suggests that the mix of health spending is not targeted toward activities that could achieve the greatest health benefits. The main contributors to the heavy burden of disease are chronic illnesses. Significant efforts need to be placed on prevention, screening,

Figure 8.1 ***Relationship between Health Expenditure and Life Expectancy*** **(selected countries)**



Source: OECD, OECD Health Data 1997, CD-ROM, Paris.

and out-of-hospital care to improve the effectiveness of scarce health-care resources. Instead there has been excess reliance on curative hospital services. Patients are treated at a higher level than is medically required, usually in hospitals instead of in primary care, outpatient specialist care, or nursing homes. Services such as targeted screening, health education, and rehabilitation are underdeveloped. Institutions (nursing homes, home care) primarily caring for the elderly are almost entirely missing. This section provides an overview and assessment of reform attempts in health promotion, primary care, restructuring of inpatient care, provider payment mechanisms, and pharmaceutical policy.

Health Promotion

Hungary's epidemiological situation—with chronic illness the primary cause of morbidity and mortality—requires a prominent role for health promotion and disease prevention. Health policy and recent reforms, however, have largely focused on the curative sector, and disease prevention has largely been neglected in the public policy agenda. The public's disenchantment with the health-care system is also influenced by the quality of curative services, which adds muscle to the treatment-centered approach to health policy. In the realm of health promotion, costs are immediately visible, whereas results can only be perceived over time, most often in too long a term for politicians. Intensifying national health promotion programs based on pilot experiments in recent years—tobacco, alcohol control, nutrition policy and school health education—offer great opportunities, and constitute serious challenges, for health policymakers.

Changes in Primary Health Care

The attempt to reform the primary health-care system has been the most concrete effort to move toward a more cost-effective mix of health services. In 1993 district doctors were renamed "family physicians" and individuals were allowed to register with their preferred doctors. This was accompanied by a shift to capitation-based payment and a significant increase in the payment level to primary-care physicians. This was intended to provide incentives to enhance the content and quality of primary-care services and create closer ties between physicians and clients. Also, the new system offered public-sector physicians the option to privatize, with access to continued health-insurance funding. Important problems remain, however. The practices of the district doctors have not yet changed: family physicians continue to offer mainly prescription and

referral services due to lack of appropriate equipment, over-specialized medical education, and the low competency of primary-care nurses. HIF reimbursements do not provide additional incentives for physicians to undertake preventive and screening activities.

Restructuring In-Patient Care

Although the need for restructuring physical and human-resource capacities in the health sector has not been questioned, the restructuring process had many problems, and has not resulted in the desired efficiency gains. This was primarily due to lack of clear strategic medium-term planning to specify objectives, processes, and potential benefits. Such a plan also could have served as the basis for the Ministry of Welfare to create support for its program among professionals and the public. Health policymakers, however, failed to make the population understand the objectives of reform, and encountered tremendous opposition and counter-lobbying from health professionals. Moreover, despite attempts to reduce inpatient care capacities, other reform measures undermined this aim. Specifically, the hospital debt settlement rewarded poor management performance. The definition of minimum standards in some cases required increasing capacity, and an unplanned increase in physician remuneration financed by the central budget was a disincentive to rationalizing human resources. As a result, the restructuring process lost credibility and the persistence of excess capacity, particularly in acute hospital care, continues to be a major cause of inefficiency, financial shortage, and, ultimately, poor-quality services.

It is widely acknowledged that physical and human-resource capacity in the Hungarian health sector is excessive compared to the disease patterns. In 1994, there were 33 physicians and 101 hospital beds (78 acute beds) per 10,000 inhabitants. By comparison, the average values for Western European countries, where per-capita budgets for health are significantly higher than in Hungary, were 25 physicians and 90 beds (55 acute) in 1990. The rationale for reducing hospital capacities is obvious if basic figures are considered: in 1994, an average length of stay was 11.6 days (9.6 for acute care), discharge rate was 21.3 per 100 inhabitants, and occupancy rate was 67 percent.

The government's program recognized the importance of reducing excess capacity to enhance the efficiency and quality of health services. In the early 1990s it was expected that the shift to performance-based financing would trigger structural changes in the sector. Recognizing that this was not going to be the case, the government attempted to tackle the

issue through direct administrative mechanisms. In 1995 a four-member committee was put in charge of defining the number of beds for each hospital that HIF was going to contract for the following year. After popular protests, the Minister of Welfare yielded to pressure and reversed many of the original proposals; not a single hospital was closed in 1995.

Following this failure, the Ministry of Welfare drafted, and the Parliament passed in July 1996, an act entitled Responsibility of Health Care Provision and Territorial Capacity Standards of Provision, which defined maximum inpatient and outpatient capacities by county (maximum number of hospital beds per county and the relative share of each specialty within the total number of beds). To manage the process and decide on specific reductions, consensus committees were set up in each county. The process led to the elimination of 6,300 acute beds (9 percent of acute hospital capacity). Nevertheless, the financial/efficiency implications of the process have remained minimal for two main reasons: capacity reduction was distributed evenly among institutions, so that very few institutions were entirely closed, preventing savings in fixed costs,[2] and the elimination of hospital beds was not followed by a proportionate reduction in personnel. At the same time, hospital cases rose by about 20,000 (11.3 percent) between January 1996 and January 1997, suggesting that reducing the number of beds did not stop the trend of increasing hospitalization. The concept of regulating the process through legal/administrative mechanisms—rather than providing incentives—provoked opposition from health professionals, local governments, hospital managers, and the medical profession. Even local politicians belonging to the governing parties opposed the act.

Table 8.3 shows increasing performance of the hospital sector and, on the other hand, decreasing financial resources. This resulted in growing tensions manifested in growing hospital debts and problems in day-to-day functioning. An increase in the number of hospital cases by 12 percent during 1993-96 was accompanied by a 13-percent decrease in the real value of hospital expenditures (1994-96)—a decrease in the real value of expenditures per hospital case by 19 percent. With regards to acute care only, an increase in number of hospital cases and the value of the case-mix index was accompanied by a decrease in real value of "unit price" (forint value of a DRG weight number) by 15.6 percent for the period.

The paradox of the situation is that the common interests of hospitals differ from those of individual institutions. Lower hospitalization rates

Table 8.3 ***Hospital Performance and Financing***

Indicator	*1993*	*1994*	*1995*	*1996*
Number of acute cases		2,213.00	2,270.00	2,394.00
Case-mix index	0.977	1.027	1.079	1.101
Acute cases (1994 = 100)		100.00	103.00	108.00
Total DRG weight number	91.00	100.00	102.00	109.00
Acute care (real) expenditure (1994 = 100)	84.30	100.00	88.60	89.10
DRG unit-price	91.40	100.00	89.20	84.40
Expenditure per acute case		100.00	88.30	85.20
Real hospital expenditures (1994 = 100)	84.50	100.00	89.80	87.00
All hospital cases (1994 = 100)	96.00	100.00	102.00	108.00
Expenditure per case (all cases)	88.00	100.00	88.00	81.00

Source: Health Insurance Fund.

would have resulted in higher unit prices for hospital care, which could be considered as a common interest of hospitals. However, individual hospitals increase revenues by increasing the number of patients treated. It is very difficult to interpret the above processes on efficiency grounds: increases in hospitalization can be understood as worsening efficiency if primary or outpatient care would have lowered the costs for the same outcome. On the other hand, lower unit prices for hospital services could result in decreasing unit costs, therefore increasing efficiency. However, decrease in real unit prices could also lead to decreasing quality.

Several measures requiring considerable financial resources were implemented in 1996 without coordination with the hospital restructuring process. These included hospital debt settlement, minimum standards, and an unexpected raise in salaries. Growing hospital debts compelled the government to create a special fund for hospital consolidation that provided interest-free loans to problem hospitals that drew up restructuring proposals. Originally, there was a significant disagreement between the Ministry of Finance and the Ministry of Welfare on the issue. Ministry of Finance officials felt that this measure would not penalize poor/inefficient management, but could actually reward it. The hospital consolidation process focused only on the existing stock of debt and nothing was proposed to prevent the accumulation of new debt. The government also issued a decree on minimum standards for health-care institutions. It was based on the suggestions of individual medical colleges, some of which proposed rather high requirements that would have justi-

fied large investments. These minimum standards had been developed without consideration of the act on hospital capacities. By early 1996, pressure put on the government by health professionals led to an agreement on a wage increase of about 24 percent. No financial provision was available in the health-insurance budget to cover this cost. And, importantly, these additional expenses were not distributed taking into account performance, and ultimately ran contrary to the aim of enhancing efficiency and overall reform objectives.

Reform of the Provider Payment Mechanisms

Since the late 1980s one of the priorities of health reform has been to shift provider remuneration to performance-based financing to replace the old historically defined budgets (Ho and Orosz 1994). The shift to new methods of provider remuneration (see table 8.4) represented a serious effort to improve micro-efficiency by linking payment to performance and to maintain tight control on costs.

The overall impact of the changes in provider payment mechanisms remains doubtful and the identified shortcomings of the new methods have not been addressed. The capitation system for family physicians does not provide sufficient incentive to improve the content of family medicine. After the introduction of the new system, physicians were interested in attracting and registering as many patients as they could, since payment was linked to the number registered. However, there were no incentives in the payment mechanism to encourage continuous and systematic visits for screening and preventive activities.

Table 8.4 ***Provider Payment Mechanisms***

Type of service	*Remuneration method*
Family doctor service	Fixed allowance per doctor + weighted capitation
Outpatient specialist care	Basic fee + capped fee-for-service (German point system)
Acute inpatient care	
Regular services	DRG-type with spending cap at national level
Special services (kidney dialysis, computerized tomography, magnetic resonance imaging, cardiac surgery, etc.)	Fee-for-service
Long-term chronic care	Per diem
Special "tasks" (school health, public-health nurse services, dental care, etc.)	Fixed budget on historical basis

Sources: Health Insurance Fund, Ministry of Welfare.

A capped fee-for-service method was adopted for remunerating specialized outpatient care, without ensuring that outpatient treatment was favored over inpatient care. Initially, retaining elements of the old system to avoid mass health-care institution bankruptcy compromised performance-related financing. For outpatient specialist care, performance financing was applied to only 45 percent of the total budget until the end of 1995. This financing method was supposed to reduce the incentive to increase services otherwise built into a fixed-tariff fee-for-service system; it does not seem to have generated the desired effect. The result has been an increase in the number of "service points," and a reduction in the money value of each point. In addition, the remuneration system favors inpatient over outpatient care. For the treatment of the same diagnosis, institutions are significantly better off admitting a patient than treating him as an outpatient. The difference in financing can be as high as tenfold. This financing system prompts hospitals to adopt behavior contradictory to health-policy objectives, as demonstrated by increased hospitalization rates during the past few years.

The shift to performance-based financing in inpatient care was intended to create competition among providers, which in turn was expected to prompt hospital managers to increase their efficiency and quality of services and spontaneously trigger reduction of excess capacity.[3] This, however, did not happen for four main reasons:

- Cap at the national level. Since there was a cap set at the national level (except for specialized care), DRG financing remained basically an allocation mechanism among hospitals rather than a reward for performance. The ceiling has, however, proven effective in preventing budget overruns.
- Rewarding past inefficiency. Initially, the DRG method applied in Hungary's hospitals rewarded past inefficient performance by assigning higher cost coefficients to hospitals that had higher unit costs in 1992. The forint value of each unit of performance was hospital-specific based on each hospital's costs and performance in 1992. These relative values ranged from HUF 14,000 to 60,000 per DRG unit of performance; that is, per average case. In October 1995 the hospital-specific values of DRG unit of performance were eliminated, but hospital revenues were calibrated so that individual hospitals received 90 to 120 percent of their previous revenues. It was again a compromise between performance-related finance and the old input-related finance due to fear of hospital bankruptcies.

- Maintaining the position of prominent hospitals. At the time of the elimination of cost coefficients, two new coefficients were introduced that set higher unit costs for university clinics, regional institutions, and certain specialties. This further distorted the real relationship between performance of an individual hospital and remuneration by the health insurance.
- Incentives remained at the institution level. Performance incentives are not passed down to individual physicians, who continue to be paid on a salaried basis. Under these conditions, gratitude money continues to pay a prominent role by providing an adequate income for doctors and ensuring peace in the political domain.

Two criteria clashed in the transformation of the funding system as the government tried to balance efficiency—by linking performance to income through normative financing, providing identical fee for identical performance, and so on—with the need to weather inevitable changes with the least possible conflict in the name of maintaining the operational viability of health care (Orosz 1997). The health-care administration (both the Ministry of Welfare and HIF) has always been divided over the issue of performance financing and employing market-type incentives. The newly re-elected body of the HIF and its administration inherited the new financing system and were not prepared for its likely problems. Thus, from the very outset, their attitude has been divided and ambivalent.

Pharmaceuticals

Over the past few years Hungary has tried to adjust its drug policy to the changing environment as market forces replaced central planning. Despite this, total pharmaceutical expenditures have increased in real terms and as share of GDP. At 2.3 percent, the share of pharmaceutical expenditures are the highest in Europe, where they vary between 0.7 percent (Denmark) and 1.6 percent (France) of GDP. Comparable figures for Central Eastern Europe include 1.7 percent for Slovenia and 1.6 percent for the Czech Republic. In terms of per-capita prescriptions, only France surpasses Hungary. The high level of consumption—due to over-prescription by doctors and patient over-reliance on medication—coupled with sharp price increases in the early 1990s, have been the main factors behind increasing pharmaceutical expenditures.

Pharmaceutical expenditures are shown in table 8.5. While total pharmaceutical expenditures (including medical appliances) have risen,

Table 8.5 ***Pharmaceutical Expenditures*** **(in HUF billion, unless otherwise noted)**

Item	*1992*	*1993*	*1994*	*1995*	*1996*
Total pharmaceutical expenditures[a]	60.50	78.20	100.80	131.60	167.60
Total pharmaceutical expenditures at 1992 prices	60.50	63.80	69.30	70.50	72.70
Total pharmaceutical expenditures as percentage of GDP	2.06	2.21	2.31	2.36	2.57
HIF pharmaceutical expenditures	43.00	54.20	68.80	80.80	96.20
HIF pharmaceutical expenditures at 1992 prices	43.00	44.20	47.30	43.30	41.80
HIF pharmaceutical expenditures as percentage of GDP	1.46	1.53	1.58	1.45	1.48
HIF share in total expenditures (percentage)	71.10	69.30	68.30	61.40	57.40
Patient pharmaceutical expenditures (HUF billion)	17.50	24.00	32.00	50.80	71.40
Patient pharmaceutical expenditures at 1992 prices	17.50	19.60	22.00	27.20	31.00
Patient pharmaceutical expenditures as percentage of GDP	0.60	0.68	0.73	0.91	1.09
Patient share in total expenditures (percentage)	28.90	30.70	31.70	38.60	42.60

a. Includes expenditures for medical appliances.
Source: Health Insurance Fund.

the share of public expenditures declined from 71 percent of the total in 1992 to 57 percent in 1996. This shift has been achieved by introducing and continually revising a detailed co-payment schedule resulting in constant price increases for patients. The largest reduction in HIF expenditures was experienced in 1995 under the macroeconomic austerity package. While the focus of pharmaceutical measures has been on increasing patient co-payments, attempts to influence behavior patterns and adjust registration policies have been neglected, resulting in continuously growing overall expenditures.

HEALTH CARDS. To reduce the burden of pharmaceutical price increases on the most vulnerable segments of the population, health cards for free medication have been increasingly issued. Under the 1993 Act on Social Assistance, health cards can be applied for through local municipalities by needy individuals, and are received automatically by those

falling into certain categories such as disabled, in military service, and orphans. Significant growth in the number of health cards has been experienced over the past four years, undermining attempts to reduce consumption through increasing co-payments (see table 8.6). The number of cards increased from 386,000 in 1993 to 549,000 in 1996. Although municipalities are in charge of assessing the financial need of card applicants and issuing cards, their share in financing expenditures incurred by card holders is low, and they have few incentives to prevent growth in the number of cards. The present system is vulnerable to abuse: prescriptions can be sought from several physicians and passed on to others or sold.

REGISTRATION POLICY. Two committees are in charge of assigning drugs to different reimbursement groups upon request by the manufacturers. The first commission evaluates the medical merits of the drug, the advantages or disadvantages of the product compared to other similar drugs, subsidy levels for the same drug in other countries, and projected turnover. This committee consists of the representatives of medical experts, the medical and pharmacy societies, Ministry of Welfare, Ministry of Finance, Ministry of Industry, and some medical institutes. A second committee (of similar composition) evaluates the cost effectiveness of drugs. Based on the recommendations of the two committees, the Ministry of Welfare in agreement with HIF submits requests to the government for final approval.

ADMINISTRATION AND CONTROL. Since 1996 drugs have been prescribed on a standardized computer-readable form containing the physician registration codes, the drug and its reimbursement rate, and the patient's status as a cardholder. The data are used to reimburse HIF and the central budget and provide input into the national database being developed by HIF. A prescription system analyzes the data to identify irregularities and misuse, which is followed up by regional HIF offices. While

Table 8.6 ***Prescription Usage, 1994-96***

Number of prescriptions	*1994*	*1995*	*1996*
Per capita	13.0	15.3	11.7
Per cardholder	50.3	52.3	58.1
Per non-cardholder	11.4	13.4	9.2

Source: Health Insurance Fund.

there is a code of sanctions against physicians and pharmacists abusing the system, HIF has no authority to take actions against patients. Operation of the prescription monitoring system has not been fully satisfactory.

While significant efforts have been made to reduce public expenditures on pharmaceuticals, the measures have largely concentrated on reducing reimbursement rates and have not been successful in altering of physician and patient behavior patterns. Further reduction in the reimbursement rates may prove politically difficult, and other policy options need to be considered, including revising registration and import policies, and market regulation; utilizing the prescription control system to its full potential by setting prohibitively high sanctions; and improving control over health cards.

INSTITUTIONAL ARRANGEMENTS

To illustrate the background against which reforms have taken place, this section provides an overview of the institutional setting, including its main actors and their conflicts. The section deals with the questions of ownership and private practice, and the respective roles and positions of the main actors of the system including the Ministry of Welfare, the HIF, local governments, and health providers.

Privatization in the Health Sector

Privatization in the health sector has remained very limited and has not yet challenged the dominance of the public sector (Orosz 1995). Privatization has progressed slowly in service provision, and even to a lesser extent in health financing. One of the main characteristic features of the current Hungarian health-care system is that there is no clear-cut division between the public and private sectors. Public institutions often provide a comfortable cushion for the operations of the private sector, as most physicians operating private practices are free riders on the diagnostic facilities, laboratory services, and overall infrastructure of the public system. This possibility of acting "private" without bearing the costs and running the risks associated with private ventures, is the main factor preventing the growth of a real competitive private health sector in Hungary.

The main intention in politics in the early 1990s was to provide the groundwork and support for private businesses by ensuring unbiased "sector-neutral" financing that would lead to a better response to market signals and improvements in efficiency and quality. However, in the early 1990s, at a time when health policy encouraged the establishment

of new private enterprises, financial resources were insufficient even to cover the expenses of existing public capacities. The most important areas of privatization in health care have, thus, been limited to the most market-oriented and marketable segments of the sector: the production and trade of medical equipment and pharmaceuticals. Other private evolutions have remained limited. The emergence of private insurance is yet to be contemplated; private practice in primary care has progressed rapidly but has not much affected doctor or patient behaviors; and privatization of pharmacies continues. The development of private medical companies and partial privatization of hospitals and outpatient clinics owned by local governments are at very initial stages. Perhaps the most significant signal of the increased private orientation of the system is the substantial increase in direct out-of-pocket private payments. These have been directed to co-payments for prescriptions, private doctors, and unfortunately–and most likely increasingly—to public doctors through "gratitude" payments. With all the distortion that such mechanism represents, one can also see in it the willingness of the population to pay for what private payment brings, or is perceived to bring: higher quality service.

In Hungary, under a 1989 decree, private enterprises in the health sector were allowed. After the political changes in 1990, the government saw no significant difference between the world of business and health-care services. One of the main slogans of the National Renewal Program was that "the privatization of business corporations shall be carried out simultaneously with the privatization of health-care services." However, reality has proven to be much more complicated than theory. Privatization in health care did not start in 1990. By 1992, even political goals were reduced to the so-called functional privatization of family-doctor services and support of new private institutions; privatization of the existing stock of public institutions (especially hospitals) was opposed by the government.

Functional privatization meant that family doctors were allowed to become self-employed or establish private firms based on contracts with local governments and HIF, while local governments remained the owners of health-care facilities. Out of 6,772 family doctors, some 2,829 functioned as private practices or enterprises in early 1995. Since 1994 the law has also allowed "functional privatization" for specialists. However, this has happened only in a few cases. Another form of privatization has been the "contracting out" of hospitals' management of the hospitals. Many plans have been under preparation, and at least one attempt has failed.

Private enterprises are extremely heterogeneous, ranging from physicians working individually to foreign companies striving for an international presence. The majority of private medical provision is financed by direct consumer payments. An important minority is made up of enterprises with contracts with HIF. Foreign and Hungarian firms are playing an increasing part in establishing diagnostic centers and bringing in high-tech medicine. Privatization of dialysis treatment has indeed led to higher standards—and higher costs—for an increasing number of patients. There is a danger that some private firms with strong market positions will be able to dictate the prices for high-tech services. In 1995 about 40 percent of kidney dialysis was provided by private centers under contracts with HIF. One of the main drivers of expansion in the private sector is that the resources of the state and local governments are insufficient to respond to the demand for modern medical technology.

The pharmaceutical and health-care equipment market has undergone radical changes due to the privatization of manufacturing and commercial firms and the liberalization of foreign trade. Import liberalization, the appearance of Western pharmaceutical firms, and companies manufacturing medical appliances have created a fundamentally new situation for health-care institutions. The modification in the distribution of narrowing resources (in terms of real value) was influenced by spontaneous processes in the market for drugs and medical appliances, the influence of producer companies over institutions and doctors, and the increase in private firms in certain areas of health care (diagnostics, dialysis treatment), rather than a conscious health policy and prioritization. Tables 8.7 and 8.8 provide selected information on these trends.

Table 8.7 ***Private Health-Care Provision***

	1992	*1992*	*1995*	*1995*
Service	*Number*	*Percentage of total*	*Number*	*Percentage of total*
Family physician practices				
Number of family practices	6,681	100.00	6,669	100.00
Self-employed	145	2.2	4,080	61.20
Public servants	6,536	97.8	2,589	38.80
Pharmacies				
Number of pharmacies	1,748	100.00	2,024	100.00
Private	252	14.40	919	45.40
Owned by local governments	1,496	85.60	1,105	54.60

Sources: Ministry of Welfare, Health Insurance Fund.

Table 8.8 ***Private and Public Providers for Specialized Services***

	Private Providers		Public Providers		Total	
Service	Number	HIF reimbursement (HUF million)	Number	HIF reimbursement (HUF million)	Number	HIF reimbursement (HUF million)
Kidney dialysis	5	2,150	25	2,166	30	4,316
Computerized tomography	6	381	41	1,482	47	1,863
Magnetic resonance imaging	6	845	4	348	10	1,193

Source: Health Insurance Fund.

Privatization of pharmacies is a special field in health-care policy. In 1990 it was agreed that state pharmacies were to be privatized. The privatization of pharmacies, however, became a matter of conflict between the county and central governments. Both governments claimed title to the pharmaceutical centers and the significant returns from their privatization. Privatization was delayed by this dispute for several years. In the end, the title to the centers was legally granted to the county governments and privatization started in 1995; by 1997 a majority of pharmacies had become private.

THE MAIN ACTORS AND THEIR CONFLICTS

The decision to shift health financing to a social insurance-based scheme was not accompanied by a redefinition of functions of the old and new institutions. In particular, the responsibilities of the newly established HIF and the Ministry of Welfare were insufficiently delineated. While the Ministry of Finance has retained its strong role over resource allocation, the tolerated deficit spending of HIF constitutes the largest remaining soft budget constraint in the economy and undermines the institutional accountability of HIF. Lack of transparency in responsibilities and functions has often resulted in tensions and conflicts among the institutions creating an ineffective environment for health policymaking and strategic planning.

The Ministry of Welfare

The Ministry of Welfare, formerly the sole authority in health policy (with the exception of financing), has had to give up some of its earlier functions in the supervision of health-care institutions, health professionals, pharma-

ceutical policy, and quality assurance. The Ministry's reduced scope in the health policy arena was reinforced by HIF control over financial resources and institutional-level data. As a legacy of the socialist system, the Ministry of Welfare has always assumed a secondary role in determining the financial resources allocated for health. This has not changed: HIF's budget is subject to annual bargaining between the Ministry of Finance and HIF. The allocation of investment funds originating from the central budget has been subject to deal-making among the Ministry of Internal Affairs, the Ministry of Welfare, and local governments. As a result of this complex interest and power structure, the Ministry of Welfare and HIF have often been at odds trying to undermine each others' reform efforts, instead of representing a unified coalition to develop and implement health policy. In the newly emerging health-policy setting, the Ministry of Welfare ought to re-assume leadership in strategy development, priority setting, regulation, and control. In contrast, the efforts of the Ministry still reflect intentions to return to direct operation of facilities.

The Health Insurance Fund

As already mentioned, a tense relationship developed between the Ministry of Welfare and the Health Insurance Self Government[4] following the establishment of the self governments. The Self Government Act was a result of efforts in 1989 to reduce the presence of the state in all settings. However, by the time the self government was established in 1993, a new political trend emphasized reinforcing the role of the state. Subsequently, two opposing views were put forward concerning the desirable extent of centralization. The first group maintained that the establishment of an independent health-insurance subsystem was illusory, and that it would hinder smooth operation of the health system; thus, state responsibility and control should be reinstated. Accordingly, in early 1996 the Ministry of Welfare proposed a "national health service" arrangement that would return to financing from state budget and eliminate the health-insurance administration and its self government. After some debate, this option was shelved. The other view advocated defining responsibility for ensuring access to care straightforwardly, and that the Health Insurance Self Government should be empowered with real financial managerial authority. According to this view, the malfunctions of the present transitional phase were not caused by this "multi-actor" model, but rather by the fundamental, structural, and efficiency problems of health care, created by the former "single-actor" centralized management.

There is no long-term regulation accepted by all parties. The issue of the functions and responsibilities of the health-insurance agency continues to feed fierce debate, mainly centered on the extent of HIF involvement and autonomy in the development and implementation of its budgets. Several issues are indeed at stake: presentation to the Parliament, HIF independence in concluding contracts with health-care institutions, HIF involvement in health financing and regulations, definition of state budget guarantees, deficit limits, and institutional debt settlements. And of course, the increasing deficit of the sector, even if it is not attributed to the HIF concept and functioning, has made all participants distrustful.

Local Governments

Some of the changes that took place after 1990 reduced the functions of local governments (for example, the switch from the tax-based financing system into compulsory insurance), while other changes increased their roles and responsibilities. In a spurt of liberalization, ownership of health-care facilities was transferred to local governments in 1990. This transfer, however, was not matched with a comparable transfer of responsibilities in financing, regulations, or supervision. As owners, local governments are—in theory—responsible for maintenance of facilities; however, in practice, there is intense competition among local institutions for scarce development funds. As noted above, resources allocated for capital investment significantly declined over the transition period. Transfer of ownership also resulted in further fragmentation of responsibilities and interests, and increased the number of actors in the health-policy arena. This has contributed to the health-care administration's difficulty in developing strategic plans for rationalizing health services.

Health Providers

The broader sphere of health care links several markets with widely different characteristics—the markets for capital goods, material inputs (medical appliances, equipment, pharmaceuticals), and labor—on one hand, and, on the other, the market for health-care services. Capital goods, inputs, and labor markets are characterized by competition and health-care institutions appear as buyers. Competitive market forces determine the costs of the services. These markets are dominated by uncontrolled prices, unregulated conditions, and aggressive market behavior, with buying institutions having little ability to influence prices. Corruption is, also, occasionally a factor greatly influencing actual processes. A few characteristic figures with respect to price trends: between

1992 and 1996 the price of surgical thread has jumped four-fold, the price of surgical plaster five-fold, and that of x-ray film slightly more than two-fold.

On the other hand, in the market for services, the hospital (institution) is the seller and HIF (in principle) the buyer of services. In this market, HIF is a monopsony and can dictate terms. Financing methods create fixed price ratios, and set a ceiling on expenditures. The incentive to step up quantity has proved to be more powerful than the performance-curtailing impact of price reduction. Institutions have found themselves in a situation where, as buyers, they are faced with an upward trend in costs, while at the same time, as sellers, they are faced with a downward trend in prices. This dual pressure has elicited various institutional behaviors, one of which is institutional indebtedness and pressure on the Ministry of Welfare and HIF for additional resources. Recent years have demonstrated that it is not enough to deal with improving the financing system. The government must analyze the potential for influencing (including investment regulation) the market for medical technology and other material factors.

CONCLUSION

As documented above, a number of important changes have taken place in the Hungarian health-care system since the early 1990s. It has been argued that these changes have neither translated into measurable improvements in the performance or outcome of the health-care system, nor into an objective increased satisfaction of health professionals and the public.

Nevertheless, these changes—whether they were clearly constructive or generated additional distortions—have reshaped the environment that the current generation of policymakers is now faced with. Globally, these structural changes in the health sector reflect the same trends that have affected the entire Hungarian society: a move away from the socialist command economy toward a more pluralistic model and increasing integration of market forces. Regardless of their level of conceptualization and success in implementation, all the elements of a health-care reform agenda—the shift from budget financing to payroll contribution-based national health insurance, attempts to rationalize inpatient care provision, the development of private practices, and the introduction of performance-based provider payment mechanisms—are similar to those being considered in established market economies. It remains to be understood why despite their relevance, no improvement has been registered.

These are the lessons to be drawn. First, none of the reform items was integrated into a consistent framework in which potential synergies and/or contradictions would have become apparent. Second, in the absence of a strategic vision, the introduction of changes would have required a decentralized approach, allowing for dialogue, flexibility in implementation, and reward for innovation. Instead, the process of designing the reform agenda and trying to implement it was over-centralized and bureaucratic, reflecting obsolete practices inherited from the past. Finally, the failure of health-reform attempts has demonstrated—if there was any need for it—that in a sector as complex and sensitive as health care, there is no room for improvisation and/or lack of preparation. Policy proposals in Hungary were not—or rarely—supported by sound technical preparatory work, both quantitative or qualitative, nor were their implementations preceded by experimentation, coupled with an evaluative framework that could have provided the needed feedback for adjustment.

The deadlock that the health reform process in Hungary finds itself in can be overcome, but it will require that a logical phasing between conceptualization, design, and implementation be established and adhered to. To begin with, the concept must emanate from a careful reassessment of the principles the Hungarian society wants its health sector to abide by, and to that extent, they will most likely not differ much from most developed countries. As for social values, individual sovereignty and responsibility will have to increase, while solidarity mechanisms will need to be protected (Kornai 1998). On the provision side, consumer needs and satisfaction will call for increased quality of services and economic considerations for improved efficiency. On the financing side, the overall macroeconomic and public finance constraints will ultimately determine the extent to which the above-mentioned principles can be respected, and which tradeoffs must be considered.

The features of the desired health-care system that the reform process could engender can then be defined in a second phase. There is little doubt that the future Hungarian health-care system will be more mixed, both in terms of provision and financing, than the current one. But this different balance between public and private resources and between public and private provision will need to be more than the relative weight of each respective part. The possibility for the Hungarian health-care system to evolve toward achieving its principles will reside in its capacity to integrate the public and private spheres by promoting public financing for private services and private financing for public provision, within a more competitive environment.

Finally, the Hungarian health-reform experience to date justifies that a new implementation approach be developed. Once the principles and the design have been developed and endorsed at the national level, the implementation process must reward the capacity of innovation and accountability of decentralized initiatives.

NOTES

1. The accumulated arrears of social insurance amounted to nearly 24 percent of total revenues in 1995. It decreased slightly to 19 percent in 1996.

2. According to the Ministry of Welfare, the HIF terminated finance to 8 institutions, 8 premises, 74 wards, and 23 units.

3. Acute care services are financed essentially by a method similar to that of the DRG, with a cap set at the national level; specialized acute care services are financed on a fee-for-service basis; chronic care is financed on a per-diem basis.

4. An act passed in 1991 provided for social insurance to be managed by a self government, but this body was only established in 1993. During 1993-97 the Health Insurance Self Government comprised 30 representatives of employers and 30 of employee associations. Employers' representatives were delegated, while the representatives of employees were elected at national social insurance elections, from trade union lists. A board of 11 members is responsible for continuous control. Legally speaking, the Health Insurance Self Government had great independence: only parliamentary acts may prescribe it functions, and it had the right of approval of government decrees pertaining to social insurance. In June 1997 a new act modifying the structure of Health Insurance Self Government was passed. The administrative body for health insurance, the HIF was established in 1993 by separating the pension and health-insurance funds from the National Social Insurance Office. The development of the internal structure of HIF is still in progress.

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9 Reforms in Education Financing

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This chapter discusses Hungary's reforms in financing primary, secondary, and tertiary education over the past decade. The first section reviews primary and secondary education, while the second covers higher education. Both sections present overviews of the transformation of the educational system and describe its financing, discuss the reforms that were carried out, and assess the strengths and weaknesses of the financing methods.

PRIMARY AND SECONDARY EDUCATION

Hungary has entirely transformed its system of financing and managing public education[1] over the past decade, moving from a highly centralized system to one in which most decisions regarding the use of resources are made autonomously by local actors; the central government has had only indirect tools to influence these decisions. Decentralization is characteristic of almost all functions, from establishing schools to employing teachers to defining the contents of the curricula. The decentralization process began well before the political changes of the late 1980s and is, therefore, not simply the product of changes in the external political environment, but also of a more gradual internal structural development. The speed at which changes took place is worth stressing because it often explains why traces of centralization can still be found in the current system.

The Decentralization of Public Education

The first steps toward decentralizing public education were made at the end of the 1960s. Until then, the education departments of local governments were subordinate to local elected officials, to county-level education departments and, ultimately, to the ministry in charge of education. With the 1971 Act on Councils, schools fell under the exclusive administrative control of locally elected councils. Management of training schools was transferred to the county-level councils in the mid-1970s. By the end of the decade, most high schools were actually managed locally: their so-called professional management was provided by county councils, but local councils were in charge of establishing schools and deciding and managing budgets. Teachers became employees of school direc-

tors at the beginning of the 1970s. During the 1980s education departments ceased to exist as separate administrative units in most municipalities and were merged with other departments such as health, social policies, youth, and sports. This local administrative integration cut the direct connections with the central administration. Thus, by the end of the 1980s, the system was almost fully decentralized. There were, however, several factors that interfered with local autonomy: local budgets were not separated from the central budget and spending was strictly regulated; funds were allocated centrally, under the direct control of the National Planning Office; the one-party system exercised unified political control; and, until 1985, schools could not deviate from programs defined by the detailed central curriculum.

A major milestone in decentralization was the 1985 Public Education Act, which introduced a concept of institutional autonomy that contrasted sharply with the administrative tradition that schools could only do what laws prescribed for them. After 1985, schools gained the right to do everything that was not explicitly forbidden by the law. Deviations from the central curricular programs became possible on a case-by-case basis but very liberally at first, then legally after 1993 when the mandatory nature of the detailed central curriculum was terminated. The 1985 act essentially strengthened the rights of educational institutions relative to local councils. A spectacular manifestation of this is the veto power that was given to teachers—exercised in secret ballots—over the appointment of directors.[2] The act also opened the way to free choice of schools by parents.

The process of decentralization continued after the political changes of 1989. Major legal milestones include the following:

- In 1989 local budgets were separated from the central budget. Central subsidies were transformed into normative grants, and local councils became independent units interested in raising their own revenues.
- In 1990, the councils became autonomous local governments. Almost all state schools became the property of the new local authorities. Providing primary and secondary education became a legal obligation of local governments (see chapter 15).
- In 1990 the Public Education Act was amended to allow private and church schools to operate. A year later expropriated assets were returned to the church and church schools nationalized after 1945 went back to their former proprietors.

- Under the 1992 Act on Public Servants teacher remuneration is defined by the same central salary scale as other civil servants, and termination of employment has become more difficult (see chapter 14).
- The amended 1993 Public Education Act gave independence to local and institutional bodies regarding curricular questions and established a new central curricular document called the National Core Curriculum. The law gives broad responsibility to local governments in the area of public education.
- In 1996 the Public Education Act was amended again to regulate parameters, such as the number of obligatory teaching hours and size of classes that are the basis for estimating expenditure demands (salaries and school equipment).

The Transformation of the School Financing System

The legal changes outlined above have shaped the present financing system, described below, for public education.

OBLIGATION TO PROVIDE EDUCATIONAL SERVICES. Providing education is a legal obligation for municipalities. They can, however, determine freely how they comply with this obligation. Any local government can maintain any kind of institution. Above a certain educational level (secondary, vocational, etc.), this task is obligatory only for counties or city municipalities. Municipalities are encouraged to join together to provide public education services. This has led to a growing number of private schools, especially for secondary general education (table 9.1).

Table 9.1 ***Number of Schools and Ownership, 1993-94 and 1996-97***

	Primary schools		*General and vocational secondary schools*		*Total*	
Owner	*1993-94*	*1996-97*	*1993-94*	*1996-97*	*1993-94*	*1996-97*
Municipal governments	3,574	3,470	605	591	4,179	4,061
County governments	49	60	172	216	221	276
Central government	30	30	24	38	54	68
Religious denominations	94	145	42	63	136	208
Foundations, individuals	21	56	19	65	40	121
Others	3	4	5	7	8	11
Total	3,771	3,765	867	980	4,638	4,745

Source: Ministry of Culture and Education.

SCHOOL REVENUES AND STATE SUBSIDIES. Municipalities pay for the cost of education services. While local governments may have other sources of income, these services are mostly financed from central budget subsidies (table 9.2). The two main state subsidies are the normative grant (which is dominant) and the subsidy for specific goals. Normative subsidies are automatically granted by the state budget when certain criteria are met. On average, municipalities allot a little less than 30 percent of their incomes to education, and education is the largest local expenditure. Local authorities spend more on education than they receive from the center, as shown by the ratio of normative grant to local education expenditures in table 9.2.

Normative education grants are the most significant transfer to municipalities, and are set in each year's budget law; they are usually related to the number of students (chapter 15, table 15.2). Until 1996 there were few normative grant categories; their number has since grown to include, among other things, students enrolled in ethnic or national minority programs, or transferring from other municipalities.

In addition to normative grants, the state supports local public education activity through subsidies for specific goals, usually keyed to priority development tasks. These expenditures have increased since the new 1996 law: the 1997 budget includes HUF 11.3 billion for such tasks, or more than 8 percent of planned normative public education expenditures.

The normative grant is available to every school with an operating license. Non-state schools can receive subsidies from central or local budgets. The Constitutional Court ruled in April 1997 that the state is obliged to provide similar subsidies to church and local government schools.

Table 9.2 ***Normative Grant and Municipal Expenditures for Public Education, 1991-1996*** **(in thousand Hungarian forints [HUF])**

Expenditure	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*
Normative subsidy for education	72,473	86,085	97,244	95,938	94,401	130,926
Education expenditures of municipalities	109,143	150,768	176,875	211,351	230,901	232,183
Normative grant as a percentage of local education expenditures	66.4	57.1	55.0	45.4	40.9	56.4

Source: Ministry of Culture and Education, Public Education Planning Department.

The financial links between central and local governments are governed by norms regulating central-local transfers: municipalities automatically receive a predetermined amount from the central budget when normative criteria are met. The financial links between municipalities and schools, which are entirely independent from the financial connection between central government and municipalities, are governed by a bargaining logic, examined below.

School Budgets: Legal Basis and Practice

How municipalities[3] determine school budgets and distribute resources among schools is only marginally regulated by law. The central budget only contributes directly to school budgets to a small extent in exceptional cases. The law defines in general terms the educational activities that local governments have the obligation to finance as well as minimum standards of quality for those activities. Two sets of laws form the basis for education financing: the legislation on the remuneration and legal status of public servants (chapter 14), and the rules contained in the Public Education Act (amended in 1996), which play an important role in evaluating the budgetary demands of schools. These rules define the amount of time put in by qualified teachers as the basis for calculating wage costs and define criteria for demanding equipment and material expenditures. As these regulations do not set precise determinants for wages and other costs, bargaining between schools and their owners takes place. The rules only make it possible for municipalities to calculate the minimum teaching load mandated by law, for which they have to secure financing for teacher remuneration. Schools in which teachers have higher qualifications—or higher average ages—than prescribed by law have higher wage costs than those employing less qualified or younger teachers. Municipalities can also extend school hours, provide extra services, or agree to pay higher than obligatory wages.

The financing system provides many opportunities for drawing on private resources. According to Organisation for Economic Co-operation and Development (OECD) statistics, expenditures financed from private sources in primary and secondary education in 1993 accounted for 0.4 percent of gross domestic product (GDP) (OECD 1996b). Private schools receive the same normative grants as municipal schools; in addition, private schools that agree to fulfill public duties automatically receive supplementary funding. It is also possible to draw on private resources in the public sphere (see below). While the law forbids tuition fees, schools always find a legal way to collect money from parents. For vocational

training, funds channeled directly to schools by businesses also play an important role. These businesses, obliged anyway to pay a certain share of wage expenditures to support training, sometimes decide to channel funds to specific schools.

Each educational institution is an independent legal entity, and many of these entities have independent economic means. They may have their own revenues in addition to those they receive from the government: schools may engage in profit-oriented activities, as long as this does not hinder meeting basic educational goals and the municipality allows it. Such incomes can represent a relatively large proportion of financing for material expenditures and activities other than teaching.

Hungary has a large number of municipal schools. There are more than 1,000 settlements with schools having eight grades, which means that more than 55 percent of all municipalities run such schools (table 9.3). Almost one-quarter of eighth-grade classes are in settlements that have less than 2,500 inhabitants (OKKER 1996a). Since all municipal schools have the right to bargain on their budgets, the number of such bargains each year is very high and outcomes can be diverse.

Table 9.3 ***Number of Municipalities Providing Public Education Services, 1996-97***

Inhabitants as of January 1, 1996	*Municipalities*	*Municipalities maintaining schools with at least eight grades*	*Municipalities maintaining secondary education schools*
Under 500	992	31	19
500-999	697	344	3
1,000-1,999	668	629	6
2,000-4,999	514	510	24
5,000-9,999	135	134	49
10,000-19,999	76	76	65
20,000-49,999	45	45	41
50,000-99,999	28	28	28
100,000-199,999	12	12	12
200,000	1	1	1
Total	3,168	1,810	248

Note: Small settlements usually maintain schools with ninth and tenth grades for students who cannot continue their studies.

Source: Ministry of Interior, Public Education Statistics, 1996-97 academic year.

The school budget emerges each year from several rounds of bargaining. The budget bargaining process differs in smaller settlements with only one school and larger cities with complex school systems. In a typical budget-bargaining scenario local authorities request the budget plan for the following year from the school principal and inform him or her about the scope for change compared to the year before (for example, wages may be increased in a determined proportion, material expenditures frozen, etc.). The school principal and staff then produce a budget and submit it to local government staff. The government staff then compare school budgets with each other and prepare the municipal budget for approval by the assembly of elected representatives.

Until 1995, most schools simply adjusted the budget of the previous year for inflation, and it was approved without changes by municipal authorities. In addition to normative grants, the state budget provided (until 1996) transfers to cover wage increases adopted in collective bargaining agreements.[4] Apart from agreed wage increases, deviations from the previous year's budgets were relatively rare and happened only in some large urban municipalities.

Following the measures adopted as part of the March 1995 stabilization program, many local governments began to pay more attention to the budget of their schools. Often with the help of outside experts, they analyzed the wage "grids" used by the schools to put together the school budgets. This process was first done on the basis of local regulations or locally agreed practices (for example, regarding teaching loads) then, after 1996, under the provisions of the Public Education Act, as amended.

Municipal freedom in local budget decisions—as discussed below—resulted in significant differences in local expenditure on education per inhabitant and school expenditures per student.

To conclude, it can be said that financial relations between central and local governments were characterized by norms and rules, while financial relations between municipalities and schools responded to a logic of budgetary pressures from teachers and collective bargaining. The former system only indirectly influenced the latter. It is only after 1995 that the system began to change as a result of budget austerity, and that financing decisions based on actual cost calculations began to appear alongside the bargaining process.

The Debate on Financing: The Role of the Central Government

The financing system described above developed as a result of lengthy debates, the most important of which was about the role of the central

budget in financing wages. The extent to which the state should bear the responsibility for paying teacher salaries has remained an open issue since 1990. The Public Education Act stated that the education transfers by the central budget had to cover wages, but whether this should be understood at the national level and cover only average local wage expenditures, or whether it should be applied to every teacher who was already employed, was open to interpretation.

The issue of responsibility for teacher salaries—and whether this covered all employed teachers—was particularly sensitive due to the decline in student numbers starting at the beginning of the 1990s caused by demographic changes. In primary schools (6- to 13-year-olds), the student/teacher ratio fell from 14 to 11 during 1988-94, a very low ratio by international standards; the number of students per classroom fell from 25 to 20 over this period. This has created a large surplus of teachers. Whether the existing financing system for public education could handle this problem was open to question and led to lively debates.

In 1996 it was finally decided not to move to direct central-wage financing—despite proposals to directly finance teacher salaries and achieve a more efficient level of employment of teachers through direct measures. These proposals were supported mainly by the Ministry of Finance. Trade unions also supported direct financing of teacher salaries, but for different reasons: they hoped that adopting such a system would lead to guaranteed security of employment and better pay levels. By contrast, the Ministry of Culture and Education wished to continue decentralized financing because it felt that such financing was the most appropriate system to guarantee both efficient employment and security of wages in a decentralized context.

Finally, it was agreed that efficiency issues would be addressed by direct government action—under decentralized patterns—by influencing the behavior of local decisionmakers; the 1996 amendment to the Public Education Act set standards under which local governments calculate wage expenditures and the appropriate number of teachers. The number of teachers employed in public education institutions fell—on the basis of local decisions—from 163,000 to 157,000 between spring 1995 and spring 1997 according to the Ministry of Culture and Education. While the aim of decreasing the number of teachers partly prevailed, the goal of maintaining the quality of services and the level of wages was not met because the real wage amount agreed during bargaining with central authorities required municipalities to fire even more teachers. During 1995-97, the real value of salaries of public employees (including teach-

ers) decreased significantly. The process of local adjustment needed to reach the required number of teachers is expected to continue with the gradual implementation of the 1996 law and the National Core Curriculum.

Behind the 1995-96 debates on financing teacher salaries lies a more general debate on the role the central budget should play in a decentralized administrative and financing system. In such a framework, the center can only affect the education system and local budgetary decisions by indirect means. In addition to regulating the performance of educational tasks and defining subsidy entitlements and scale and "output requirements," establishing a system of evaluation and quality assurance are gaining in importance.

Output requirements have been defined through three documents: the National Core Curriculum, the Requirements for the Maturity Examination, and the National List of Qualifications. The National Core Curriculum, which defines the level of knowledge that has to be acquired by the end of the fourth, sixth, eighth, and tenth grades, was adopted by the government in 1995. The Requirements for the Maturity Examination, which defines the level of knowledge required to pass the final examination for secondary school, was issued in 1997. The National List of Qualifications, which includes requirements for vocational public education, was last amended in 1996.

The new public education evaluation system—which is still being developed—rests on three basic pillars: the examination system, the system of nationally accredited experts, and the definition of the evaluation tasks assigned to the various actors in public education. The government, through the above-mentioned documents for output regulation, jointly with the "social partners" during collective bargaining, defines detailed requirements for the examinations taken at the end of the compulsory school attendance period and at the end of secondary school studies. It is also the state's duty to accredit public education experts to oversee schools (a list of accredited experts has been issued, although the criteria have not yet been adequately defined). Finally, the state defines the evaluation roles of the actors in the public education system—central government agencies, municipalities, school principals, and social partners. These are defined in broad terms in the amended Public Education Act, but have not yet been regulated in detail.[5]

Advantages and Drawbacks of the Present Financing System

In terms of achieving education policy goals, the administration and financing system for Hungarian public education created by the successive

reforms of the 1990s has several advantages and drawbacks. While poor research data make their analysis difficult, some inferences are possible. The following dimensions are examined briefly:

- Quality of education
- Efficiency in managing resources
- Free consumer choice
- Equality of opportunity
- Accountability with public funds
- Capacity to draw on alternative sources
- General capacity of the system to adapt and scope for development and innovation.

QUALITY OF EDUCATION. The specialized literature abounds in discussions on defining the quality of education (OECD 1995c and 1996b; Setényi 1997). Two criteria are discussed here: performance as measured by standardized tests, and satisfaction with education. The two are not necessarily correlated, as the public could be more satisfied while test results are getting worse. Sample survey results indicate that school achievements have declined during the 1990s, and that the smaller the size of municipality, the worse the results are (table 9.4).

Public opinion polls show a declining trend in the public's satisfaction with education. While the level of satisfaction increased during 1990-95, it fell during 1995-97 (table 9.5). However—and this is not shown in table 9.5—education is in the group of public services in which the public is most satisfied. Interestingly, increasing dissatisfaction is mostly characteristic of the more educated people living in urban areas; that is, those who are connected with schools in which the measured decline in school achievements is lowest.

Table 9.4 ***Percentage of Eighth-Grade Students Solving Problems in Mathematics and Reading, 1991-95***

Location	*Reading*	*Mathematics*
Budapest	–9.25	–2.39
County capitals	–9.93	–0.92
Other towns	–11.91	–4.95
Villages	–13.07	–4.52
National average	–11.98	–3.24

Note: A minus sign indicates a decline.
Source: OKKER (1996a).

Table 9.5 ***Results of Polls Asking How the Quality of Education Changed during the Last 10 Years*** **(percentage)**

Answer	*1990*	*1995*	*1997*
Very much improved	2	3	2
Improved	25	35	24
Did not change	30	30	31
Got worse	28	22	29
Got much worse	3	1	3
Does not know	13	9	11

Note: Sample size = 1,000 adults. The question referred to in the heading was not about primary or secondary education, but about education in general.

Source: Public education opinion polls (1990, 1996, and 1997) conducted by the National Public Education Institute.

Many factors play a role in the deterioration of school performance and the weakening of satisfaction. The financing system is one, but not the most important. It cannot be overlooked that the performance and satisfaction could have been worse with a different financing system. In the case of small villages, however, the fact that performance is getting worse is probably connected either with the decentralized financing system or the loss of adequate compensation mechanisms.

The decentralized system of financing and administration also could have a positive influence on the quality of education. One of the key features of the Hungarian educational system is competition among school owners, schools, and users of the services. This competition—even though it is known to have negative effects—has led in many places to an improvement in quality. For example, efforts to meet consumer demands played a significant role in spreading computer literacy and early education in foreign languages. Because they were obliged to prepare their own pedagogical programs, schools have had to analyze their conditions and draw up development plans. Local self-diagnosis, which often means identifying quality issues and searching for ways to solve them, is an important part of such plans. They often have resulted in quality improvements built upon local initiatives, which otherwise would not have taken place.

RESOURCE MANAGEMENT. Centralized control and competition can improve—or worsen—efficiency in managing resources. In Hungary, there are several examples of both. It would be difficult to tell which is dominant.

Deterioration in management efficiency occurred because small settlements attempted to maintain their own schools, resulting in a large number of very small schools with very high per-student costs. For example, class size in eighth grade was 12.7 in 1995 in settlements with 500 to 1,000 inhabitants, and 19.6 in settlements with 2,000 to 2,500 inhabitants (Várnagy 1995). Settlements often undertake unprofitable investments—for example, building schools they cannot fill with students—disregarding demographic facts. This lowers efficiency. With the introduction of territorial planning under the amended Public Education Act, the number of such cases will probably decline.

Many examples of improved efficiency also can be described. Municipalities, particularly after 1994, analyzed the resource demands of their schools and took the results into consideration during their budget bargains. Their direct incentive to lower expenditures forces municipalities to manage their resources more efficiently. Some financial policy measures assist in increasing management efficiency. For example, many subsidies for specific goals are available to municipalities only if they are ready to offer some of their own resources: an important element of teacher training is that schools, as of 1997, can use only state subsidies to finance specific training if they are ready to cover 20 percent of the fee themselves.

CONSUMER CHOICE. One goal almost completely met by the current system of financing and administering education is freedom of choice for consumers. There is practically no legal obstacle hindering family school choice—the law forbids municipalities from limiting this choice. Municipalities can require schools to accept every student from a particular district, but people cannot be obliged to send their children to school in a given district.

Freedom of choice is mainly limited by location and effectively operates only in larger towns and their direct surroundings. As financing is based on student numbers, state subsidies follow students moving from one village to another. Since the receiving village also collects a supplementary subsidy for such students, there is an incentive to receive out-of-district students.

The current financing system is also supportive of the freedom to establish schools. Schools established by the private or nongovernmental sector have to meet only certain formal requirements that can be fulfilled easily. All schools with operating licenses automatically receive normative state subsidies, which, in 1996, represented some 56 percent of current expenditures in municipal schools.

EQUALITY OF OPPORTUNITY. Decentralization and the loss of adequate compensation mechanisms can affect equality of opportunity. Inequalities between institutions developed on a large scale, especially between towns and villages, during the 1990s. A typical manifestation of inequality among settlements has been the large difference in how many classes schools teach. For instance, in Budapest, the number of classes averaged 29.1 in 1995, while in the less-developed county of Borsod-Abaúj-Zemplén it was only 26.5, and in Somogy it was 26.9 (Várnagy 1995). These differences should diminish, but will not entirely disappear, with the amended Public Education Act. Research data show that the financial standing and expenditures on education of settlements is correlated with educational performance as measured by standardized tests (table 9.6). Performance correlates much more strongly with the income level of inhabitants than with indicators of local government spending. The strongest correlation is between performance and type of settlement, while the biggest inequality is between towns and villages.

It is expected that by legislating on the design and implementation of the National Core Curriculum and compensation measures, for example, to small villages or owners of dormitories, the observed rise in inequality could be slowed.

ACCOUNTABILITY WITH PUBLIC FUNDS. The accountability for public money can be spoken of in two senses—reasonableness and legality of use—and discussed in the context of both owners of schools and schools themselves.

Table 9.6 ***Standardized Test Results in Reading and Mathematics and Economic Conditions*** **(standardized number of scores)**

	Divergence of results of standardized tests from the national average		
Indicator	*Lower third*	*Middle third*	*Upper third*
Personal income tax/inhabitant	–35.16	–0.64	14.57
Current expenditures of local government/inhabitant	–30.92	3.21	6.38
Education expenditures of local government/total expenditures	6.25	–19.51	–0–15
Expenditures for primary education/student	–22.29	–3.2	0.45
Expenditures for primary education/inhabitant	–5.5	–2.29	–9.11

Source: OKKER (1996a). The data are from 125 settlements that took part in a monitor survey in 1995.

In the case of municipalities, reasonableness of resource management is not subject to external auditing. Funds for development recently have come under greater control with the introduction of county level planning, but there is no external control of current expenditures. As far as the legality of their use is concerned, external audits are limited. Examinations by the State Audit Office are very rare and do not cover all municipalities. Complaints regarding the legality of educational resource management are few, and those that are filed go to the Ministry of Interior offices operating at the county level, which then can enforce the law through the courts. In the case of private-school owners, local governments control legality.

Accountability is weak in local governments that have political autonomy, but very strong at the level of schools: local governments can exercise almost full control, and do so in most cases. They can control cash management in their own schools, both in terms of reasonableness and legality. However, research shows that the control of reasonableness is very restricted and—though this is a legal obligation of municipalities—rarely covers the evaluation of teaching efficiency. Elected school councils can also exercise some control over schools.

ATTRACTION OF ALTERNATIVE RESOURCES. As seen earlier, the system encourages drawing on alternative resources. Own revenues account for a growing portion of the incomes of local governments and are used to finance public education. Efforts to draw on alternative sources, however, are not only characteristic of local governments, but of schools as well.

The Public Education Act allows profit-oriented activities in schools, and explicitly forbids owners from depriving schools of these resources. It requires that they be taken into account when drawing up school budgets. Owners often require schools to acquire a certain amount of their own resources to cover, for example, the costs of student cafeterias. A common practice is that schools associate with private foundations created to support certain tasks—such as organizing holidays for students, sports, teaching computer science—with funding for these foundations coming mainly from private sources. The initiative to tap alternative resources is particularly characteristic of vocational training, and vocational school principals consider it part of their normal managerial task to raise such resources.

ADAPTATION AND INNOVATION. Decentralized control usually favorably influences the adaptive capacity of the system, though there are many examples to the contrary. For example, in vocational training, school

owners have a tendency to maintain obsolete training patterns no longer needed by the economy—without outside pressure. Adaptation is often a process that requires time: local adaptation starts only after tensions have accumulated and become unbearable. Thus, subsidies for increasing the number of teachers remained in effect until 1995, even though student numbers were declining. Here, the ambiguous signals sent out by central government policy also played a role in delaying reform: local governments did not know until 1996 whether the central government would take the financing of teacher salaries away from them.

Decentralized control and school independence are favorable to innovation initiatives. During the 1990s there has been a number of innovations never before seen in Hungary. According to the latest research data (Vágó 1997), about two thirds of schools not only take over curricula drawn up by others, but adapt them; 10 percent draw up their own local curricula independently.

Conclusion

The Hungarian public education financing system is partly the product of a long-term transformation process and partly of very recent reforms. Great decentralization and the importance of municipal and school-based decisionmaking characterize the present system. In terms of budgetary links between the state and municipalities, the former supports the latter through norm-based transfers and determines general rules for meeting educational tasks. Municipalities can use subsidies without restrictions and are free to define their school budgets.

The decentralized norm-based financing system has advantages and drawbacks. Anecdotal and empirical evidence have been presented for both. It has been seen that, without an active policy of compensating losers, the goal of ensuring equal opportunity is difficult to achieve in such a system. It is, however, very successful in securing consumer choice, attracting alternative resources, and creating innovative initiatives. Outcomes are more contradictory when it comes to efficiency of resource management and adaptability. The latter, however, can be assessed only in a long-run perspective as local decisionmakers usually react gradually—with a delay of one to two years—to changes in external conditions, including changes in central policy.

One of the main issues related to decentralized financing systems—the definition of the role of the state—is very much an open question. It is no wonder, therefore, that it has been, and will be, at the center of the debates on financing in Hungary. Many elements of the state's role as

active developer, controller, quality assurer, and compensator have already taken shape, but many others remain undecided. While most major legal provisions defining the role of the central government have already been adopted, the institutional changes needed to carry out these provisions are not yet in place.

HIGHER EDUCATION

The budgetary institutions representing higher education have been among the fastest growing segments of the public finance system. Between 1991 and 1997, expenditures and budgetary transfers to universities, colleges, and other higher education institutions grew 138 percent—an average of 23 percent a year, in nominal terms. This rapid increase is mainly explained by the expansion of the system itself. There was a significant increase in the number of students (106 percent) and institutions (faculties) (18 percent), and a small increase in the number of staff (10 percent) and other employees. In real terms, expenditures and transfers declined by 30 percent. The growth of expenditures was restrained by the fact that wages were more or less compensated for inflation, while funding for maintenance and operation fell considerably behind inflation. The increase in nominal transfers (until then mostly automatic) was temporarily halted by the 1995 stabilization program, which mandated a 15-percent reduction in professional and other staff and other direct cuts in budgetary resources. By 1997, the central budget allocated HUF 77 billion to higher education, while total expenditures on higher education were HUF 118 billion, 4.64 percent of general government expenditures. In terms of support to central budgetary institutions (especially those supervised by ministerial agencies), higher education represents 14 to 15 percent of general government expenditures.

There has been, undoubtedly, an efficiency gain reflected in improvements in most per-unit financial and physical indicators—in connection with the spectacular growth of student numbers. However, there has been no meaningful reduction of capacities in existing institutions that would have directly reduced expenditures and decreased the need for financing. This inevitably has led to mounting tensions both between the central budget and the institutions, and between the availability of resources for these institutions and their tasks (that are mostly defined by the institutions themselves).

Recent Trends and Present Problems

ADMISSION AND OUTPUT. While it is a significant scientific research base, the institutional system of higher education primarily serves educational

needs. As a consequence, changes in expenditures are largely affected by changes in the size and structure of the student body. In terms of size, structure, and finances, the basic issue in Hungary is that the ratio of full-time students is rather low by international standards and this problem, therefore, needs to be given priority in terms of reform and regulation.

Table 9.7 shows the increase in the number of higher education students. The number of full-time students rose from 82,000 to more than 140,000 in the academic years 1991-92 and 1996-97. However, despite this rapid increase, the 1996-97 figure represents only 16 percent of the 18-to-22 age group. Part-time training also expanded very fast in the last five years to reach 57,000 in 1996-97. Based on this figure, the number of higher educational students represents 16 to 23 percent of the 18-to-22 age group. Non-state education has increased at an above average rate. Altogether there are more than 200,000 students in higher education.

There are different views on how to increase the ratio of students within their respective age groups and what an optimal ratio should be. In Hungary the political target is a 30 percent ratio. This ratio is based on international experience and is not properly defined; however, it can be said that, given the current absolute number of admissions (42,000 full-time students) and low drop-out levels, Hungary could surely reach the international ratio by the turn of the century.

The impressive growth in student numbers has not been accompanied by any conscious restructuring of educational policy. Admission numbers are still driven by the demands of institutions that seek to maintain or expand their capacity and not, for the most part, by the current or future needs of the labor market.

Table 9.7 ***Number of Students in Higher Education, 1991-1997***

Year	*Full-time*	*State*	*Non-state*	*Evening*	*Correspondence*	*Public*	*Non-public*
1991-92	83,191	82,018	1,173	4,372	19,516	18,866	650
1995-96	129,541	117,992	11,388	5,764	44,260	37,664	6,555
1996-97	142,113	127,877	14,236	5,750	51,169	41,581	9,588
1996 as a percentage of 1991	171	156	1,214	132	262	220	1,475

Source: Ministry of Culture and Education. Evening courses are attended only by state students.

Table 9.8 ***Percentage of Students in Public and Private Higher Education Institutions, 1991-1996***

Type of Institution	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*
State	98.2	96.5	93.4	91.9	90.0	88.2
Non-state	1.8	3.5	6.6	8.1	10.0	11.8

Source: Ministry of Culture and Education.

There has been a major change in the structure of higher education (table 9.8). Non-state education (church, foundation, private), insignificant five years ago, has grown to more than 10 percent of the total. This implies a widening of choices. However, this transformation occurred spontaneously and the size of the non-state sector—similar to the growth of student numbers—was unexpected for the state. As a result, no planning framework was adopted and financial conditions were not created in time. The growth of the non-state sector in higher education has not diminished the burden on the central budget, as it has an obligation to provide equal resources to these newly established non-governmental educational institutions.

If the system is looked at on the output side, the picture is more favorable. The ratio of people with university diplomas in the 20-to-24-year age group is adequate in the sense that Hungary is in the middle range in Europe (table 9.9). So, viewed from the output side, there is no need for major further expansion.

Table 9.9 ***Percentage of the Population in the 20-to-24-Year Age Group with a University Degree***

Country	*1990*	*1993*
Austria	2.4	2.9
Czech Republic	2.3	2.4
Denmark	4.5	5.9
Finland	6.9	9.9
Germany[a]	4.6	5.6
Hungary	4.2	4.2
Italy	2.2	2.6
Poland	4.4	5.1
Slovenia	4.2	4.8
Spain	3.5	4.3

a. West German Länder only.
Source: Ladányi (1996).

Table 9.10 ***Higher Education Institutions*** **(faculties)**

	1970	*1975*	*1980*	*1985*	*1990*	*1996*
Number of institutions	74	56	57	58	77	89
(Faculties)	(102)	(104)	(95)	(100)	(117)	(140)

Note: This table does not include institutions managed by the military, the police, the church, and foundations.
Source: Ministry of Culture and Education.

HIGHER EDUCATION INSTITUTIONS. The present network of Hungarian universities and colleges was largely established after World War II and grew continuously until the 1980s. Generally this process had a beneficial impact, although investment decisions were influenced by regional interests and prestige motives. This is partly the cause behind the excessive regional and organizational fragmentation that exists today (table 9.10). In 1996, higher education was provided in 140 different faculties (or other types of organizations) pertaining to 89 institutions in 40 different municipalities.

In 1996 there was an average of 3,700 students (3,100 full-time) per university and 1,800 (1,150 full-time) per higher-education school. There were no large institutions, a few mid-sized (10,000 students) ones, and a lot of small institutions of secondary-school size with a few hundred students. There are 14 state-owned institutions with more than 2,000 full-time students. In nearly 50 state-run institutions and independent units, the number of full-time students is below 800. Around 18 percent of all students attend these small institutions. Agriculture experts are trained in 16 institutions, which average fewer than 600 students. Teachers are trained in 50 different institutions, all of which usually have a very narrow profile. Non-state institutions are also very small. The average size of a higher educational institution is one fifth of that of similar institutions in a number of Western European countries.

This fragmentation is the main reason higher-education operations are wasteful and inefficient. Fragmentation is expensive because each institution has independent—and mostly uneconomic—staff, buildings, laboratories, instruments, libraries, and so on. Economies of scale cannot be achieved because the critical mass of personnel and material inputs is not there. Much of the stock of buildings is obsolete and their operations are costly. Although small institutions operate relatively more cost effectively and their total costs are not significant, their existence hampers better capacity utilization in large institutions, improvements in the pro-

fessional level, expansion of the supply of education, and the strengthening of cheaper forms of non-state education.

AUTONOMY AND CONTROL. In the past few decades the educational and management autonomy of higher-education institutions has gradually increased. Moreover, Hungarian budgetary institutions such as universities and colleges have broad financial autonomy. Although the financing trend is toward greater restrictions, these institutions can reallocate and use budget revenues and other resources largely at their own discretion, although institutions vary in their use of this freedom. The newly established nationwide budget management system (chapter 13) can ensure the quantitative matching of appropriations and their use, but it cannot modify the financial management practices of higher-education institutions.

One of the fundamental problems in Hungarian higher education is that institutions see autonomy as unlimited, giving them not only scientific and educational freedom, but also the right to spend central budgetary resources at their maximum discretion. The Higher Education Act adequately describes the organizational and professional autonomy of institutions, but does not fully regulate the conditions of cost-effective operation. This regulation is expected to be achieved by another law that has yet to be adopted. This legal vacuum has contributed to mounting tensions between the fulfillment of tasks and available financing. Internal audit and control of these institutions is mainly routine. Their managements are oriented toward academic objectives, and regularly disregard the warnings provided by the audit system and fail to take the necessary measures. The introduction of computerized and norm-based financing has legalized the omission of supervisory oversight that is intended to ensure compliance.

EXPENDITURES AND RESOURCES IN HIGHER EDUCATION. As a consequence of economic stagnation and decline, Hungary's GDP in the mid-1990s fell to its 1976-77 level. Until 1992, per-student spending on education compared to per-capita GDP exceeded the OECD average. Since then, this indicator has continuously declined and is now at about the international average. The education system—and especially higher education—operates with a level of budgetary support that is high compared to Hungary's potential.

Table 9.11 shows the changes in higher education's share of resources available to the national economy. At the aggregate level, these trends have to be evaluated keeping in mind the overall decline of fiscal redistribution in terms of GDP. During periods of fiscal austerity, one

Table 9.11 ***Central Budget for Higher Education, 1991-1997*** **(HUF billion and percentage)**

Indicator	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Expenditure (HUF billion)	56.2	62.2	73.5	91.5	82.9	88.2	117.7
of which, investment (HUF billion)	1.4	1.4	2.8	2.7	5.9	9.2	14.9
Investment ratio (percentage)	2.5	2.3	3.8	3.0	7.1	10.4	12.7
Revenues (HUF billion)	24.3	24.2	27.8	33.8	29.7	32.3	40.9
Revenue/expenditure (percentage)	42.9	38.9	37.8	36.9	35.8	36.6	34.7
Budget transfers (HUF billion)	32.1	38.4	45.7	57.7	53.2	55.9	76.8
Transfers/expenditure (percentage)	57.1	61.1	62.2	63.1	64.2	63.4	65.3
Cash transfers to students (HUF billion)	4.1	5.5	6.7	7.6	8.4	9.3	11.6
Transfers to students as a share of total transfers	12.8	14.3	14.7	13.2	15.8	16.6	15.1
Total central budgetary expenditure (HUF billion)	856.2	988.7	1,264.1	1,453.5	1,404.8	1498.6	2,561.6
GDP (HUF billion)	2,498.3	2,942.7	3,548.3	4,369.9	5,500.0	6,745.0	8,085.0
Higher education as a share of total expenditure	6.6	6.3	5.8	6.3	5.9	5.9	7.3
Transfers to higher education as a share of total expenditure	3.7	3.9	3.6	4.0	3.8	3.7	4.8
Higher education as a share of GDP	2.2	2.1	2.1	2.1	1.5	1.3	1.4
Transfers to higher education as a share of GDP	1.3	1.3	1.3	1.3	1.0	0.8	0.9

Note: Expenditure on higher education does not include military and police higher education. Total central budgetary expenditure is aggregate expenditure of the central government excluding budgetary chapters for international settlements and domestic debt. Transfers include the support of medical schools by the Health Insurance Fund. GDP calculated according to new methodology of the Central Statistical Office. Data for 1997 are budgeted, not actual data.
Source: Ministry of Culture and Education.

would expect the share of transfers—including those going to higher education—to decline in proportion with the overall reduction in the GDP share of general government and the central budget. This has not been the case: trends in the share of higher education reflect an obvious budget preference. On the other hand, the fact that the relative level of expenditure did not change much during 1991-97 despite a significant increase in supply and declining budgetary support in real terms, indicates that fiscal policy was successful in terms of overall financial adjustment. But it is important to bear in mind that in the absence of organizational and management reform, this has largely been achieved at the cost of deteriorating material and technical quality, mounting tensions, and the accumulation of unmet financing needs.

Economic management of the institutions has changed little over the past few decades. Institution directors are not managers but administrators. The lack of clear distinction between scientific and economic management, the lack of professional financial management and of properly defined accountability of the heads of the institutions (rectors, general directors) and managing bodies hinder cost-effective operations. In practice, there is no institutional budget planning in the sense of coordinated processes that adjust expenditures to revenues and transfers. Usually there is neither time, nor expertise, willingness, and effective support for economic considerations and the elaboration of alternative solutions.

There has been no restructuring of the higher-education system since 1995. The reduction in the number of faculty members forced by wage cuts in 1995 has not led to a well-thought-out rationalization of the sector; forces are even moving in the opposite direction. Some institutions have increased their revenues (by organizing paying courses, training programs, etc.), using market-oriented solutions to escape the consequences of the austerity measures. But generally, so far, the intentions to increase sector integration have had no tangible results.

EMPLOYMENT AND WAGES. Higher-education institutions employ around 50,000 people (not including health-care employees) a third of whom are faculty members. In light of the budget regulation in force—for almost three decades—institutions have discretion to decide on the number of employees. The limit is represented by the separate budget allocation for personal allowances and a nationwide pay scale that sets minimum wages. The employment rules also stipulate that excess revenues may be used to increase the number of employees. Finally, some sort of budget regrouping is possible at the expense of personal allowances. There are no planning,

professional or quantitative requirements governing employment of faculty members and other staff. The rigid salary system takes into account qualifications and amount of time spent in current position (number of years teaching), and contains quite a few wage supplements and other mandatory payments. Public employment "for an indefinite period," and rigid payment obligations hinder the realization of efficiency and quality requirements arising from the system of normative financing.

Some 24 percent of faculty members are employed part time. In the past five years, part-time employment has increased, as many laid-off professors were re-employed with part-time contracts. Low salary levels also forced faculty members to take on additional work in other higher-education institutes. As a result, teachers became overburdened (table 9.12), which led to a deterioration of the quality of teaching. Non-state educational units also rely on part-time employment.

The staff rationalization that started in 1995 to improve efficiency came to a halt in 1996. By 1997 the number of faculty members reached its earlier level. The ratio of full-time faculty members and employees dropped, while the ratio of persons employed part-time or on a contractual basis rose, as mentioned above. The minimal improvement in efficiency is due to higher student numbers (from a methodological point of view, it is important to note that the efficiency indicator representing at least two thirds of the international level was achieved with a large ratio of non full-time students (27 percent in 1996), where the load is smaller than in the case of full-time training).

Table 9.12 ***Number of Classes Taught by Full-Time Faculty Members*** **(annually and weekly)**

Institution	*Professor*		*Assistant Professor*		*Associate Professor*		*Teaching Assistant*	
University 1992-93	178[a]	5.9[b]	251	8.4	257	8.6	243	8.1
Other Higher Education 1994-95	222	7.4	281	9.4	326	10.9	325	10.8

a. First column equals annually.

b. Second column equals weekly (classes are counted as 30 weeks [term time]).

Note: The State Audit Office reviewed higher education in two stages: universities in 1992-94, and colleges in 1994-96.

Source: State Audit Office.

In theory, normative financing tends to enforce performance-linked compensation. However, the application of the Act on Civil Servants, with its inherent drawbacks in protecting employment and making redundancy very difficult, coupled with an equalizing-type of income policy applied by the institutions, contributes to the conservation of poor organizational structures with large numbers of departments, a small number of professors, and low faculty performance by international standards.

Reforming Higher Education: Recommendations

In light of the above analysis, Hungary's main educational reform objectives (as described by several resolutions adopted by Parliament) should include the following:

- The volume and structure of training should be brought in line with the quantitative, structural, and qualitative expectations of the labor market. The country's professional needs (once properly calculated) should be, in part, state-financed through a centrally determined student capitation. For the rest—and for social demands above this level—increasing the share of paying and non-state training programs should finance them. This means that expected performance should be defined by the financier.
- The institution network should be modernized. This means integrating scattered institutions, reducing the number of internal organizational units, elaborating on an educational structure that is efficient from an economic point of view, and redefining profiles. This also implies that functions not related to higher education or scientific research (for example, dormitories, clinics, model farms, demonstration schools, kindergartens) that are run by the educational institutions should be rationalized in terms of organizational, operational, and financing structures, while the universities or colleges usually reserve the right of control ("ownership").
- Institutional autonomy should focus on the content and methods of training and research and selection of personnel. Within the management of institutions, internal economic control should be made stricter. The prospective managers (rectors, general directors) should have economic qualifications and organizational skills. In organizational, financial, and investment issues a decisive role should be assigned to the bodies representing the interests of society and users, rather than the academic establishment.

- Using performance indicators, the educational financing system should be differentiated on the basis of functions. Maintenance, training, and research should be considered core functions. The legal and organizational framework for setting these indicators are already available, but the norms for performance-linked compensation still have to be elaborated. Performance indicators would ensure coordinated management of institutions by domestic and international standards, be an important element in controlling their output, and would make costs levels easy to regulate.
- Employment and remuneration rules should be made more flexible to improve professional and economic efficiency, and a quality assurance system for teaching and research activities should be introduced.
- Institutions should be encouraged to increase their own revenues and use more of their own resources for funding their activities. The normative costs of certain functions—especially teaching—should be co-financed from the institutes' own revenues.

Given these objectives, the main reform tasks to be performed are now described.

STUDENT NUMBERS AND STUDENT FINANCING. State-financed institutions (irrespective of ownership) can achieve international output ratios without reducing the number of students they admit by winnowing out poor performers in the course of their studies. This approach has, however, been rejected by higher-education officials, as the method of implementation has not yet been elaborated.

Within the total number of students it is necessary to reduce the ratio of state-financed students. If the number of new state-financed entrants stabilizes, 40 percent of 18-year-olds and 60 percent of those with secondary degrees will have access to state-financed education very soon. The number of students financed from the budget could, however, be kept within its limits by reducing the average training period prescribed in the curricula, and making all evening classes and correspondence courses paying. This would meet one of the basic requirements for reforming public finances by defining and restricting the state's role while expanding the range of services freely available to citizens willing to pay for them.

The professional structure of education needs to be adjusted to the future labor-market needs. One way of meeting labor-market demands is

to allow students wider freedom of choice, except in those areas in which the employer is the state. This system could operate effectively if labor-market forecasts are used as a control and information base. In addition, an institutional feedback system must be put into operation. The professional structure of higher education also needs restructuring. The number of students in some areas (teachers and agrarian engineers) must be reduced—based on the forecasts—where too many students are trained, while more students should be admitted to law, economics, and social sciences courses. However, additional capacity in these areas should not be created and maintained exclusively by budgetary financing, as these training courses usually enable students to achieve much higher future salaries. Real savings in higher education can be achieved only if reallocation of students among professional disciplines is supported by the closure of certain institutions (at least budget-financed state institutions).

The new normative capitation system and the widespread use of tuition fees and support solves the problems of student financing. The legal framework for paying educational fees was set in the Act on Higher Education in 1993 and introduced in 1995. Tuition must be paid by those in their first full-time programs in college or university undergraduate, graduate, or postgraduate training. Those studying part-time in undergraduate programs (correspondence or night classes) can be charged a supplementary fee. Other programs (post-secondary training, part-time specialized advanced training, second-diploma training, part-time doctoral and advanced training) should have no restrictions on cost recovery at the point of sale.

The principle of co-payment should be applied to higher education on a much wider scale. As higher education is basically state-financed, and graduates look forward to high financial returns as a result of their education, it is not fair for the tax-paying public to finance it for a small part of the population. Overall rates of return to investment in higher education are high, showing that it is indeed greatly rewarding for its graduates. There should be more cost-sharing in the higher-education financing system to place a greater share of the costs on the few profiting from it. Support systems should be put in place; the introduction of a relatively small tuition fee was difficult in 1995, and met great resistance from student organizations, because it was not accompanied by an adequate support system for those who are in financial need. Other private resources, such as donations or commercial revenues, also should be mobilized.

Tuition fees are being introduced gradually, applying only to new entrants. Revenues from these fees remain with the respective institutions. In state-financed institutions, revenues from tuition and other fees cover 3 to 4 percent of total costs.

The 1996 amendment left regulation of the amount of tuition to subsequent government decrees, but distinguished between state and non-state institutions by mandating that private institutions providing state-funded training cannot charge tuition fees greater than the tuition charged for similar training in public institutions. A recent government decree introduced a differentiated tuition scheme, to take effect in September 1998, under which institutions can differentiate the level of tuition state-supported students pay within a range. The maximum tuition fee to be charged to new entrants cannot exceed 10 percent of the normative subsidy (currently HUF 70,000 per capita). The overall amount of fee income cannot be less than 3 percent of the total normative subsidy received by the institution of full-time students. Of course, institutions are allowed to have a different fee schedule for different individuals based on academic performance and financial need. For evening, correspondence, part-time programs, second diploma, or other specialized forms of training, they can charge supplementary tuition fees not exceeding 12 percent of the total normative support.

At the same time the private non-subsidized system of higher education—in which institutions may set any fee they like—is becoming larger and less transparent. The number of students participating is not known, but, based on estimates and 1995 data, around 30,000 students participated in non-subsidized higher education, and another 15,000 to 20,000 in outside-school courses organized by higher-educational institutions on an entrepreneurial basis, or reimbursing all costs (Polónyi 1996 and data from the Interministerial Post-secondary Expert Committee). The use of revenues from such courses is not controlled. There remains a need to develop credit mechanisms for higher education that will give students financial support to pay increasing tuition fees (and later probably, subsistence costs), to be repaid from future incomes that should reflect their educations.

INSTITUTIONAL INTEGRATION. Significant changes are needed in the institutional structure—and within individual institutions towards integration—though this should not be the exclusive solution. The most important steps include the creation of so-called "universitas," the consolidation of institutions in the same settlement, and transfer of maintenance and ownership to subsovereign entities, churches, or foundations, and in some cases elimination of some institutions.

The number of state institutions should be radically reduced, internal organizations with parallel functions eliminated, and institutions restructured to fulfill new functions. It should be a basic principle that the central budget only finance institutions that meet efficiency requirements set in the form of norms. The objective should not only be integration, but the creation of units of optimal size providing professional and economic services. Internal structures should undergo comprehensive rationalization to improve efficiency, with or without the concentration of the institutional network.

Rationalization of the institutional system is a macro-level, higher-educational policy and organizational task. The starting point should be student-number planning. The system of state institutions should be determined by modeling the most economic and efficient organizational structure to train the number of students financed by the state. Voluntary integration of institutions is not a substitute for a comprehensive, government-orchestrated reorganization; integration may just represent the micro-level interests of the institutions and the professorial establishment without any substantial move toward greater efficiency.

FINANCING REFORM. The development of a function-based financing system should be continued. This includes the allocation of resources on the basis of training norms. Modernization should first of all be based on the rationalization of this practice, making the requirements and organizational conditions more restrictive. The objective of normative financing is twofold: it has to lead to both better quality and reduced costs. The other important ingredient of the reform is task financing (for example, investment, research, programs). Finally, institutional budgets should have allocations for the maintenance of capacities. These have already been incorporated in joint educational-maintenance norms.

The financing system itself should not lead to higher-education budget resources, but should lead to a transparent calculation of needs considering professional and economic aspects, and performance-linked allocation and modification of resources. The financing system should be based on performance expressed by student numbers and encourage cost-effective operations. New financing requirements would enable the use of new performance indicators (student/faculty-staff/non-faculty-staff numbers and the ratio of personal allowances; minimum faculty number at the departments; reasonable facility capacity, etc.). Norms will incorporate special payments, such as position-related supplementary allowances, and certain student allowances, while quasi-norms in research and program financing will become part of the task-financing system. The

principle of state support to maintain and operate facilities will remain but the principle of degressivity (the amount of support being inversely proportional to the level of income of the student or his or her family) should apply—in addition to taking into account special circumstances.

The financing rules serve professional interests by forcing the rationalization of the institutional network, efficient restructuring within the institutions, educational organization, the definition of requirements, and modernization of the training structure.

REFORMING EMPLOYMENT AND RENUMERATION. This part of the reform would include making employment rules more flexible, reducing automatic commitments in the system of allowances, and providing performance-linked compensation that increases the share of income linked to performance. This reform should be based on accountability under the professional and public employment laws pertaining to higher education and lower-level decrees. The new system of employment and remuneration is expected to ensure that state-financed staff and their remuneration burden the central budget only to the extent of tasks and the quality of performance.

In line with the new financing system described above, it is necessary to ensure quality remuneration and employment security for professors and lecturers with set and controlled performance, and researchers with outstanding performance. It is also necessary to adjust employment rules covering junior faculty members, researchers, and higher-education employees to the requirements of the Labor Code, and define forms of fixed-term employment for a large number of employees. The management staff of institutions should be appointed for indefinite periods, or perhaps be removed from the scope of the law on public employment. Within this framework, it is reasonable to eliminate most bonuses and automatic allowances, and use a differentiated wage scale relying heavily on the performance requirements and control of faculty members and researchers. To protect public funds, outsourcing of tasks should be forbidden.

The financial reform of the system of higher education is a critical element to modernize the operation and economic management of those budgetary institutions within the framework of the reform of public finances. Following the recommendations outlined above is the only way to inject real accountability for the efficient use of public money into a system characterized by a high level of professional and managerial autonomy.

NOTES

The first section was written by Gábor Halász with contributions to an earlier draft provided by Zsolt Aradi, János Szüzdi, and Márta Bencze. The second section was written by Zsolt Aradi based on a detailed report prepared by Judit D. Nagy.

1. The term "public education" is used in Hungary to refer to primary and secondary education.

2. This right was abolished by the Constitutional Court in 1991 on the ground that it restricted the liability of the owners of schools.

3. The remainder of this section refers only to municipalities. However, it should be clear that the same institutional rules apply to all entities, private or public, that are licensed owners of schools.

4. The forum for collective bargaining at the national level is the Interest Reconciliation Council (KIÉT), which includes representatives of government, trade unions, institutional employers, and local governments.

5. A model of the government playing an active role worth mentioning is the system of in-service training of teachers. The state channels funds, as stipulated in the 1996 law, to—or through—municipalities to schools (in 1997, these funds amounted to about 1.4 percent of local government expenditures). The state provides guidelines on the use of these funds, leaving schools free to choose training modalities and costs (tuition fees, traveling costs, fees for substitution). An accreditation committee for in-service training of teachers with representatives from higher education, government, and professional teacher organizations has been set up. Its task is to accredit programs of organizations offering in-service training (higher education, pedagogical services, etc.). State subsidies can be used only to cover the costs of programs accredited this way. This model attempts to combine guarantee of quality with free consumer choice.

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10 Poverty Alleviation: Social Assistance and Family Benefits

Sándor Sipos and István György Tóth

This chapter provides an overview of the changes in family policies and social assistance and their impact on poverty alleviation. Hungary developed a wide array of social benefits during the socialist era—under circumstances of nearly full employment, relatively low inequality, and a wide net of job-related social provisions. The transition has brought about drastic changes in all these areas that were not reflected in the design of social systems for several years. Gradual and hesitant reforms in the first half of the 1990s brought erosion of benefits rather than a shift toward more focused and efficient benefit structures. Radical reform of family benefits was suggested in 1995 and implemented in 1996. This reform had strengths and weaknesses, which are analyzed in this chapter.

Social assistance is defined as cash and in-kind transfers that are not insurance-based, and institutional care for individuals unable to care for themselves or pay fully for care. Social assistance is needs based; it is usually means-tested—or contingent on conditions that are proxies for means-testing. Its purpose is to maintain the consumption capability of households that have lost income, and help individuals or households cope with crisis situations that threaten them with poverty or social marginalization. This chapter focuses on cash social-assistance payments; in-kind benefits are not discussed in detail.

Family benefits include three major groups of provisions: cash benefits for children, cash benefits for mothers, and maternity bonuses. Child allowances (whether universal, categorical, or means-tested) belong to the first group. Fixed, lump-sum, or earnings-replacement benefits provide income maintenance for mothers while pregnant or rearing children; such women may also receive non-cash benefits, such as unpaid leave and job protection. A detailed account of these policies and the effects of their reforms are provided in the following sections of this chapter.

The analysis starts, in the first section, with a cross-sectional picture of Hungarian family and social-assistance policies, reflecting conditions around 1990. The second section takes a closer look at changes in the welfare system during 1990-96. The third explains the radical changes that took place in early 1995. Finally, the fourth section gives an evaluation of these changes.

It is argued that social-policy reforms should be evaluated under five criteria. The first is program costs, to assure fiscal sustainability. The second is the mechanism for targeting benefits to assure they reach those intended to be helped—part of the broader topic of the distributional aspect of social transfers. The third criterion is the adequacy of benefits, their ability to compensate for income losses and help beneficiaries survive. The fourth is administrative arrangements, which are often the keys to the success of social programs. Finally, the incentive/disincentive effects of social transfers are analyzed. Because there is little reliable empirical data available, much of the analysis of these effects remains speculative.

FAMILY BENEFITS AND SOCIAL ASSISTANCE AROUND 1990

Family benefits in 1990 included a universal child allowance, social insurance-based maternity and child-rearing benefits, and employment guarantees and special parenting rights. These rights and benefits were granted by the Labor Code and laws and bylaws introduced prior to the systemic change. One of the last measures of the outgoing socialist government in March 1990 was to make child allowances universal.

Child allowances were provided, as a citizenship right, for all children under age 16 and students under age 20. The amount of the benefit was fixed by regulation, and varied according to the number of children and family composition. Children with disabilities received supplements above their regular allowances. The child allowance was financed by the budget but administered through the Social Insurance Fund (SIF).

Maternity benefits included 24 weeks fully paid maternity leave for mothers with full insurance coverage (270 days contribution during the previous two years) or the same period of leave with 65 percent of previous average wage for those with at least 180 days coverage during that period. Insured mothers who visited doctors at least four times during their pregnancy also received one-time childbirth grants. These benefits were financed by SIF.

Child-rearing benefits were provided for the same broad circle of insured persons and included unpaid leave for three years for each child (10 years for disabled children). Mothers with many children received additional paid leave. During the unpaid leave, workers could not be dismissed or transferred to other job locations. Also, during the first two years, mothers could choose between a wage-related cash benefit (GYED) under rules similar to those for paid maternity leave, or a flat

fixed-amount benefit (GYES). GYES could be continued until a child reached 3 years of age (or 10 for disabled children). Both GYED and GYES were financed by SIF. Local councils and some employers also provided childcare for children of working parents from 20 weeks to 3 years of age.

Regular social assistance had five major forms. Top-up benefits were provided for those who were not able-bodied or were five years older than the statutory retirement age and had incomes below the lowest survivor pensions. These benefits supplemented incomes to the level of the lowest survivor pension for dependent family members. A second regular benefit was a means-tested childbearing assistance for families whose per-capita net income was below the minimum old-age pension. This assistance could be provided in cash or in kind. Local councils financed these regular social-assistance benefits mostly with funds coming from the central government via block grants or other subsidies. A third group of benefits included non-insurance-based benefits for the blind and otherwise disabled. Either SIF or local councils paid these benefits. A fourth form of a non-insurance based, work/means-tested benefit was transitory unemployment assistance paid to unemployment beneficiaries whose entitlements had expired. This benefit was 75 percent of the lower benefit the unemployed received during the second six months of their insurance-based periods. The benefit could not be lower than 80 percent of the minimum wage, or higher than the gross minimum wage. This benefit was financed by the Employment Fund and was limited to one year. A fifth, non-contributory, pension-like benefit was provided by SIF for elderly people in rural areas who had no other entitlements.

The main vehicle of occasional social assistance was occasional child-rearing assistance, a discretionary benefit administered by the Guardianship Office and financed by local councils. Other forms of social assistance included personal-care allowances, public-drug and health cards, and funeral assistance.

Costs: Relative Importance of Family Benefits and Social-Assistance Provisions

Expenditures on family benefits well exceeded social-assistance payments in Hungary before the systemic change. Almost 4 percent of the gross domestic product (GDP) was devoted to family policies; less than 1 percent to social-assistance expenditures. Two things should be stressed: that the family support system developed gradually through decades[1] and reached its most extensive form around 1990, and that family benefits

have traditionally played a prominent role in other Central and Eastern European countries. Because of depressed wage scales and a lower level of income inequality, family size largely determined differences in the well-being of families. In 1990, expenditures on family support were higher in Hungary than in other European countries (table 10.1).

How countries allocate their resources depends primarily on demographic structure, historical traditions, and institutional settings. However, policy differences also matter. This is reflected in the different emphasis placed on pensions, family benefits, and unemployment/social

Table 10.1 ***Family Support as a Percent of Social Expenditures in Europe, 1990***

Country	*Family support/ GDP*	*Social expenditures/GDP*	*Family support/ social expenditures*
Hungary	3.9	22.7	17.2
Romania	2.7	16.7	16.2
Ireland	3.0	19.7	15.2
Slovakia	3.8	25.5	14.9
Bulgaria	2.7	21.2	12.7
Czech Republic	2.8	23.0	12.2
Belgium	2.3	25.2	9.1
France	2.3	26.5	8.7
Luxembourg	2.3	27.3	8.4
Norway	2.3	28.7	8.0
Poland	1.6	20.2	7.9
United Kingdom	1.8	22.9	7.9
Sweden	2.5	33.1	7.6
Albania	0.8	11.8	6.8
Germany	1.5	23.5	6.4
Finland	1.6	27.1	5.9
Denmark	1.5	27.8	5.4
Portugal	0.8	15.3	5.2
Netherlands	1.3	28.8	4.5
Italy	0.7	24.5	2.9
Spain	0.3	19.3	1.6
Ukraine	0.1	11.8	0.8

Note: Social expenditures include expenditures on the aged, families, housing, health, and unemployed. Family support includes maternity support and family allowance.

Source: OECD countries (OECD 1994); other countries including Hungary (UNICEF 1997).

assistance. For example, table 10.2 shows that in 1992, the Czech Republic spent more than 27 percent of its social expenditures on family benefits while Poland spent only slightly more than 10 percent. Hungary and Slovakia (at 22 and 23 percent) were closer to the spending pattern of the Czech Republic. The relatively low spending on social assistance in all four countries is explained largely by full employment, nearly full coverage by social insurance benefits, and ideologically motivated denial of the existence of poverty.

Family support expenditures grew continuously in Hungary in the second half of the 1980s (table 10.3). They consumed about 2.8 percent of the GDP in 1985, growing to 5 percent in 1991 due to a gradual extension of eligible clientele (making family allowance a universal benefit) and the introduction of new benefits.

Distributional Implications and Targeting of the Benefits

Using the traditional income-based notion of targeting, a benefit more targeted needs consideration if more of its proceeds are received by the lower-income deciles. Vertical (income) targeting is reasonably unambiguous for able-bodied and socially integrated individuals and families, especially in the context of analyzing the incentive structure of benefits.[2] Also, the fall of output and the budget crunch during the early stage of the transition focused public attention on the fiscal sustainability of family benefits and social assistance.

Little is known about the incidence of social transfers in Hungary before the 1990s. The first poverty and incidence study, World Bank (1992), emphasized the inadequate targeting of most Hungarian social

Table 10.2 ***The Relative Importance of Pensions, Family Benefits, Social Assistance, and Unemployment Benefits in Visegrad Countries, 1992*** **(relative share in total social expenditures)**

Country	*Pensions*	*Family and maternity benefits*	*Social assistance and unemployment benefits*	*Total*
Czech Republic	58.3	27.3	14.4	100
Hungary	61.1	22.8	16.1	100
Slovak Republic	67.9	22.4	9.7	100
Poland	77.4	10.5	12.1	100

Source: Förster and Tóth (1997); calculations based on UNICEF 1997.

Table 10.3 ***Expenditures on Transfers Relating to Children and Childcare, 1980-97*** **(percentage of GDP)**

Type of Transfer	*1980*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Family allowance[a]	1.89	2.06	1.97	1.89	2.58	3.09	3.09	3.47	3.30	3.10	2.70	1.80	1.39	1.25
Pregnancy allowance[b]	0.06	0.04	0.05	0.04	0.05	0.05	0.04	0.03	0.04	0.07	0.05	0.04	0.02	0.02
Maternity allowance	0.21	0.16	0.19	0.18	0.20	0.19	0.20	0.23	0.23	0.22	0.20	0.16	0.12	
Childcare fee (GYED)	-	0.15	0.31	0.33	0.49	0.49	0.47	0.51	0.51	0.52	0.46	0.37	0.33	0.15
Childcare allowance (GYES)	0.54	0.27	0.18	0.16	0.13	0.16	0.18	0.25	0.25	0.25	0.25	0.20	0.21	0.32
Child-raising support allowance (GYET)	-	-	-	-	-	-	-	-	-	0.02	0.06	0.05		
Childcare sick pay (GYAP)[b]	0.10	0.09	0.11	0.09	0.10	0.08	0.06	0.06	0.05	0.04	0.04	0.03	0.02	
Child tax allowance	-	-	-	-	-	0.31	0.34	0.49	0.29	0.29	0.29			
Total	2.80	2.77	2.81	2.69	3.55	4.37	4.38	5.04	4.67	4.51	4.05	2.65	2.09	1.74

a. Includes the one-time means-tested supplement in 1994.

b. Delivery allowance prior to 1993.

Sources: Data until 1995 (Szivós and Tóth 1998); 1995-96 data are computations based on Szivós and Tóth (1998); 1997 data are preliminary; family benefits: Ministry of Welfare Communication; GDP: National Bank of Hungary estimate.

transfers. Van De Walle, Ravallion, and Gautham (1994) found similar results. Child allowance is usually presented as a well-targeted benefit in Hungary; this especially was true at the end of the 1980s (World Bank 1992; Jarvis and Micklewright 1992). The shares of the lower deciles in family allowance expenditures were relatively larger than the shares received by upper deciles. In fact, despite the (then) employment-related nature of family policies, child and maternity benefits were relatively well-targeted toward the poor (table 10.4). However, if an equivalence scale that reflects economies of scale or age-specific difference in needs in a household is applied, family benefits may appear less well-targeted (Jarvis and Micklewright 1992; Förster 1994; Tóth, Andorka, Förster, and Spéder 1994).

The fact that 1980s family policies were employment related, should be emphasized. Still, given high employment rates, the number of those excluded because of the lack of employment records was relatively low. This changed radically in the 1990s. As employment fell and unemployment grew, the number at risk of losing their rights to family benefits

Table 10.4 ***Distribution of Family Allowances in Net Per-Capita-Income Deciles of Households, 1989***

Income decile	*Decile share of family-allowance expenditure, (percentage)*	*Share of family allowance in net household income (percentage)*	*Share of family allowance recipient households (percentage)*
1 (lowest)	16.3	20.8	64.6
2	14.3	13.7	60.7
3	13.1	11.1	57.5
4	11.1	8.5	50.7
5	9.9	7.0	44.4
6	9.3	5.9	42.6
7	8.4	4.8	38.9
8	7.3	3.7	34.5
9	5.6	2.4	27.5
10	4.7	1.4	20.9
Total/ average	100.0	6.0	42.6

Source: World Bank (1992).

increased, and the extension of eligibility of family benefits in 1990 was partly motivated by the rise of unemployment.

Adequacy of Benefits: Poverty and Social Transfers

Changes in poverty profiles in the 1980s may have affected the move toward universal family allowances. About 10 percent of the population lived below the officially defined poverty line throughout the decade. However, despite the largely stable poverty head counts, there were marked changes in the poverty group in the 1980s. Poverty became younger: more and more children fell below the poverty line, while (mostly due to the extension of the pension system in the 1970s) poverty rates for the elderly fell. In addition, poverty seemed to be moving to the cities during the 1980s.[3]

Family allowances were made universal in 1990, probably at the moment when they were most effective in lifting families above the poverty line. As shown in table 10.5, almost two thirds of low-income families with two or more children were lifted out of poverty by the family allowance in 1989. Extension seemed a rational policy decision, as almost 42 percent of large families below the poverty line did not qualify for employment-related family allowances. At the same time, only 10 percent of one-child families below poverty line did not have access to the family allowance.

Table 10.5 ***Poverty and Family Allowance, 1989***

	Active households		
Indicator	*With one child*	*With two children*	*With three and more children*
Households with incomes less than the subsistence minimum (percentage)	5.3	6.4	14.5
Share of households below subsistence minimum without family allowance (percentage)	10.0	18.4	41.9
Poverty withdrawal rate of family allowances: rate of households lifted above subsistence minimum by the family allowance	47.0	65.2	65.3

Source: World Bank (1992).

As could be expected, making the family allowance universal drove up the cost of the program significantly. As table 10.6 shows, family allowance increased from 0.8 percent of GDP in 1970 to 2.1 percent in 1985 and reached 3.5 percent in 1991, by the time the impact of the broadening of the base of the benefit became full. In the same period, the family allowances increased from 14 percent of average wages in 1970 to 24.2 percent, and then to 40.9 percent in 1990. Increased overall program costs, however, prompted the government to erode the relative value of family allowance against average wages. By 1994 the family allowance was only 28.2 percent of average wages. This erosion, however, was not enough to reduce overall program costs significantly, as family allowances were still 3.2 percent of GDP in 1994.

Administrative Issues

Family-support administration was fairly simple during the 1980s. As family allowances and maternity benefits were based on employment records, those outside the world of labor markets were only eligible under exceptional circumstances. Benefit administration rested on employers. In the early 1980s practically everybody was employed, either in one of less than 2,000 enterprises or the 1,200 cooperative farms, or in the public service. The fact that family benefits were work-related or universal (the child allowance from 1990) made eligibility certification very simple. There was no need for administratively complex means-tests or time-consuming and stigmatizing home visits and case studies by social workers. Family-support administration became more difficult during the 1990s, when the number of economic entities increased to the hundreds of thousands. Also, with increasing numbers becoming unemployed or dropping out the labor force, relating benefits to employment became increasingly problematic.

The administration of local government-provided social assistance became more complicated and fragmented in 1990 when local councils were transformed into 3,200 local governments with wide-ranging responsibilities and rights, but without adequate resources. Local governments were obliged by law to means-test and certify more than half a dozen social-assistance benefits. This obligation was made even more difficult by a combination of local discretion as to the level and criteria of these benefits, and inadequate and unclear funding.

Table 10.6 ***Family Allowances and Childcare Subsidies, 1970-97***

Benefit/Indicator	*1970*	*1975*	*1980*	*1985*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
						Family allowance							
Expenditures (HUF billion)	2.8	6.4	12.9	20.7	50.5	64.3	81.5	91.9	103.0	111.2	100.2	95.0	105.0
as percentage of GDP	0.8	1.3	1.9	2.1	3.1	3.1	3.5	3.3	3.1	2.7	1.8	1.4	1.2
Recipient families (1,000s)	731	905	1,013	1,363	1,368	1,514	1,545	1,536	1,477	1,502	1,429	1,422[b] 1,273[c]	--
Recipient children (1,000s)	1,597	1,773	2,095	2,349	2,346	2,498	2,532	2,466	2,406	2,432	2,354	2,329[b] 2,138[c]	--
Recipient children as percentage of <18 population	55.1	64.5	73.3	81.9	84.9	91.0	93.0	91.5	90.9	91.3	92.0	86.2	--
Family allowance[a] /net average wage	14.0	20.8	24.4	24.2	39.7	40.9	39.7	36.1	40.8	32.5	29.0	24.5	--
Family allowance/ minimum wage	--	--	--	--	87.6	86.2	73.4	70.5	83.3	71.4	62.5	51.7	--

Benefit/Indicator	*1970*	*1975*	*1980*	*1985*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
						Childcare fee (GYED)							
Expenditures (HUF billion)	--	--	--	1.6	--	9.7	12.0	14.2	17.3	18.8	20.4	22.3	12.7
as percentage of GDP	--	--	--	0.2	--	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.2
Recipients (1,000s)	--	--	--	67	--	155	151	148	143	136	125	113	--
Average childcare fee/average wage (percentage)	--	--	--	41.0	--	41.0	43.0	53.0	54.6	49.9	52.6	54.0	--
						Childcare allowance (GYES)							
Expenditures (HUF billion)	1.2	3.0	3.9	2.7	--	3.7	5.8	7.0	8.3	10.2	11.3	14.1	26.9
as percentage of GDP	--	--	0.5	0.3	--	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Recipients (1,000s)	157	250	263	167	--	95	109	113	115	116	114 118[d]	124	--
Childcare allowance/average wage (percentage)	28.0	28.0	21.0	20.0	--	26.0	34.0	34.0	32.5	31.7	31.8	27.2	--

-- Not available.

a. In two-parent, two-child families.

b. January-March.

c. April-December.

d. Changed method of computation.

Sources: Until 1995 (Szivós and Tóth 1998); data for 1995-96 are computations based on Szivós and Tóth 1998; 1997 data are preliminary; family benefits: Ministry of Welfare communication.

The weakness of local administration was exacerbated by the lack of deconcentrated organs of the central government. Only certain segments of the welfare system had county or lower-level bodies. These bodies had no funds and few technical capabilities to offer to local governments. As a result, eligibility determination was even more haphazard than the excessively discretionary regulation would have suggested. The outcome of a welfare claim was determined more by the kind of benefit the applicant sought than actual need. Potential claimants often—and local administrators occasionally—did not have correct information about available options. Rejected claimants had little recourse. As benefit eligibility determination was discretionary, local government obligations to provide social assistance were difficult to enforce.

Incentives and Disincentives

The limited literature on incentive/disincentive effects in pre-transition Hungary shows that social assistance and family benefits produced mainly indirect disincentives for labor-market participation. This was because these benefits were mainly universal or employment related, but not means-tested. Flexibility and rigidity in labor and housing markets, the portfolio of other benefits, and other institutional factors seem to have played a more prominent role in determining the behavioral responses associated with these benefits.

The most important maternity benefit, GYED, was determined as a fixed percentage of the mother's salary. It ran only until a child's second birthday, after which mothers had to opt for the much lower flat child-care allowance (GYES) or return to work (re-entry was legally guaranteed). This arrangement was clearly very costly. Labor-market incentives and disincentives seem to have been equally built into these benefits by design. The fact that eligibility depended on employment records was a clear incentive to take jobs—but once those records were acquired, relatively generous provisions encouraged increasing the uptake of benefits.[4]

In Hungary, as elsewhere, family and social-assistance benefits have three important design features that affect labor-market behavior. First is the relationship of benefits to the incomes received while in the labor market. The second is the set of eligibility criteria for benefits. The third is the fact that the taxes raised to secure resources to finance the benefits may reduce overall demand for labor. The main problem with incentives in family and social-assistance benefits is the emergence of a poverty trap if benefits are not designed carefully—it may not be rewarding for

beneficiaries to return to the labor market if they lose all or part of transfers through benefit withdrawal or taxation.

When eligibility for child allowances was made universal in 1990, there were groups for whom labor-market participation became less attractive. Universal benefits imply fewer labor-market disincentives than means-tested ones, as they avoid the poverty trap—although the income effect of these universal benefits may still reduce work incentives and labor supply. However, universal benefits, such as the Hungarian child allowance after 1990, reach many recipients: they cost a lot and contribute to driving up taxes.

Hungarian social-assistance payments also show that changes in financing and administrative arrangements may alter the incentive system significantly. If exclusively local or central financing is replaced by a co-financing arrangement between central and local governments, this in itself may reduce the incentives of local bureaucrats to monitor expenditures—which can easily drive up program costs.

Having presented some of the arguments about incentives and disincentives, it can be argued that the balance was, in a way, pro-employment, and that the design of benefits and the surrounding conditions prompted persons to participate in the labor markets.

TRANSITION YEARS: EXTENSION, EROSION, AND A SHIFT IN WELFARE PHILOSOPHY

This section takes a close look at three important sources of change in social policies: changes in earnings and incomes, rising poverty and changes in its structure, and the erosion of benefits. Labor-market issues are discussed in chapter 11.

Changes in Earning and Incomes

Changes in labor-market status also determined earning possibilities. Earnings of those able to stay permanently on the labor market increased much more than those with only temporary employment (Tóth 1997). In general, the dispersion of earnings grew significantly during the transition. Occupational status seems to be a very important determinant for wage differentials. In 1994 the average wage for white-collar workers was approximately 70-percent higher than that for blue-collar workers. Wage differentials by gender were also marked. On average, male wages were 23 percent higher than female wages (KSH 1995).

The dispersion of market incomes of households increased by some 10 percent between 1989 and 1995 as shown by the values of the Gini coefficient. This change was dominated by increased dispersion of earnings, while comparative figures for cash property incomes showed the reverse. If all pre-transfer incomes (that is, market incomes and non-public inter-household transfers) are taken together, the dispersion also increased, from 0.47 to 0.50 percent.

Before transition, income inequalities were more compressed in Hungary than in countries of the Organisation for Economic Co-operation and Development (OECD). With the liberalization of wage policies, inequalities among social strata increased. The ratio in mean incomes of the highest and lowest deciles increased from 3.8 in 1982 to 5.2 in 1991, then rose further during 1991-96 (Förster and Tóth 1997). In 1996 households in the highest decile of per-capita incomes earned well over seven times more than the lowest (Kolosi, Bedekovics, and Sík 1997).

As a summary, it is safe to say that probably the most important—and perhaps the most harmful—consequence of structural adjustment and of very permissive social policies was the rise in inactivity. This had at least two very negative consequences. One was the increasing fiscal burden under circumstances of declining financial sources. The other harmful effect was the loss of human capital: with the spread of long-term unemployment and inactivity, an increasing number of persons lost their attachments to formal labor markets.

The Rise and Changed Structure of Poverty

Poverty increased and became more visible in Hungary in the first half of the 1990s. The absolute number of people living under the subsistence poverty line rose some 50 percent by 1992 (KSH 1993). The poverty rate rose to 22 to 25 percent in 1993, and 30 to 35 percent in 1995 (Kolosi, Bedekovics, and Sík 1997). The World Bank estimated that poverty extended to about half the population in 1993, using the subsistence minimum as a benchmark (World Bank 1996a). However, measurement of poverty is very difficult in the circumstances of a transition economy and economic decline.

When assessing the operation of family policies, the impact of demographic composition of households on poverty rates should be

scrutinized. Poverty rates are higher among households with at least three children, or if the head-of-household is under 40 years of age, or a single parent. Differences among household types are smaller for age categories between 40 and 60 years, but here also, single-parent families and families with three or more children are more likely to be poor. Finally, households headed by persons above 60 years of age who live alone are at great risk of being impoverished. This outlines a definitive life-cycle profile of poverty and underlines the importance of properly designed family policies (Andorka, Spéder, and Tóth 1995).

Poverty rates are also very high for the Hungarian gypsy population. In 1992-93, 69 percent of all gypsy households were found to be poor. Longitudinal analysis shows that this population has practically no chance of escaping poverty (Tóth, Andorka, Förster, and Spéder 1994). Also, educational and regional differences in poverty are large. People with less education, and those living in lower segments of the settlement hierarchy (mostly in rural areas) are especially vulnerable to poverty. Those living in isolated farmhouses, or in homes where the family head is poorly educated (less than 8 primary school grades), are twice as likely as the average to be poor. The role of labor markets in determining poverty rates increased during the 1990s (World Bank 1996a). Those living in households with unemployed people have a risk of being poor at least twice as much as the average.

Family and social benefits affect the incidence and structure of poverty. Table 10.7 presents pre- and post-transfer poverty rates for various transfers. It is clear from the data that when using fixed poverty lines, the withdrawal of family allowances considerably increases poverty; focusing on unemployment benefits and social assistance would result in smaller increases in poverty. Obviously, though, this is partly a result of the different size of the clienteles for these benefits. Therefore, a more specific analysis should also be taken of family benefits and specific poverty rates for those eligible for these benefits (table 10.8). The last row in table 10.8 answers this question: How much larger would the poverty rate be if there were no family allowances? Deducting family allowances from total household incomes would result in a 30-percent increase in poverty of those below 16 in 1996. However, the withdrawal of family allowances would also have resulted in a significant increase of poverty rates for family members above this age.

Table 10.7 ***Poverty Rates of Persons in 1995-96*** **(person-equivalent incomes, various poverty thresholds, and various equivalence scales)**

		Poverty rates (on the basis of)			
Equivalence scale elasticity, e =	*Poverty line: 50 percent of the average person equivalent income, HUF/year*	*Total household incomes*	*Total income minus family allowance*	*Total income minus unemployment benefit*	*Total income minus social assistance*
1	106,919	18.0	22.7	19.8	18.4
0.73	140,250	15.3	20.5	16.5	15.7
0.55	169,398	15.0	20.6	16.3	15.3

Note: Equivalence scale elasticity reflects the assumed household economies of scale as family size grows. Formally: $N = Y/S^e$, where N = assumed consumption need of the family, Y = total household incomes, S = family size, and e = equivalence scale elasticity.

Source: Szivós and Tóth (1998), on the basis of Hungarian Household Panel data.

Table 10.8 ***Poverty Rates with and without Family Allowances, 1995-96*** **(poverty line: 50 percent of the average per-capita household income)**

	Rate of the poor persons in the:		
Indicator	*Total population*	*Population less than 17 years old*	*Population of or above 17 years old*
Income basis for poverty computations: total household incomes (1)	18.00	31.30	14.30
Income basis for poverty computations: total incomes-family allowances (2)	22.70	40.30	17.80
Poverty withdrawal rate of family allowance (2/1)[a]	1.26	1.28	1.24

a. Ratio of poverty rate in row 1 to poverty rate in row 2.
Source: Hungarian Household Panel.

Gradualism and the Erosion of Social Benefits

Gradualism and hesitation characterized the policy responses to these trends in the early 1990s. There were no eligibility cuts in the family support systems between 1990-95 (table 10.6). Instead, with the introduction of new measures, the clientele for family benefits was increased. One of the extensions was implemented when, under the Social Law of 1993, a new child-rearing provision was introduced. The new benefit was given to families with at least one child between three and eight years old. This benefit—GYET—although insurance based, had a means-test: only families whose per-capita net incomes did not exceed three times the minimum old-age pension qualified. GYET is now a flat-rate benefit at the level of the minimum old-age pension, and subject to a 6-percent pension-insurance payroll tax. It is administered by local governments but financed by the central budget.

The strategy of gradual extensions, under severe budgetary constraints, led to gradual but dramatic erosion of family benefits. Child allowances lost half of their real value between 1990 and 1994. There were no eligibility cuts for GYES and GYED, but both benefits eroded. In the case of GYED, introduction of a benefit ceiling in 1992 accelerated this erosion.

These trends gradually changed the structure of social transfers, even though there were no radical reforms during the first half of the 1990s. Family benefits remained, by and large, universal, but their distributional

impact became more pro-poor because of the erosion of benefits. However, as there were no eligibility cuts and family allowances were still perceived to favor the middle classes, the government decided to revise the whole previous arrangement of these benefits.

A Radical Approach to the Reform of Family Support

A more radical series of reforms was launched in early 1995. To cope with the deepening fiscal and current account-deficit crisis, a package of austerity measures was announced in March 1995, including devaluation of the forint, strengthening the tax base, and cutting public-sector wages, employment, and social expenditures.

There were three important characteristics of the proposed changes in family benefit systems. The most controversial proposal was to expand means-testing to family allowances, maternity benefits, and birth grants. However, the means-test was not a poverty test, as the threshold was set at a level which, if applied alone, would exclude only the richest 10 percent of recipients. Second, canceling the child-rearing benefit and shortening the duration of the fixed-sum maternity benefit was proposed. This was meant to weaken the employment and earnings links of maternity benefits. Finally, the changes included some macro cost-shifting proposals, the most important of which was shifting family benefit costs from earmarked taxes to general taxation. Financing of monthly cash maternity and child benefits was shifted from the Health Insurance Fund (HIF) to the state budget, but administration remained with HIF.

One of the most controversial elements of this stabilization package was a child-allowances reform that aimed to convert employment-related maternity benefits and universal family allowances into a means-tested scheme. There were two arguments put forward: the high cost of the child allowance and its inadequate targeting. The proposal set the eligibility ceiling for the full child allowance at a per-capita net income of Hungarian forint (HUF) 15,500 in 1994, with reduced allowances for families with incomes up to HUF 17,000.

The proposal also contained a wealth test that denied family allowances to those with property over HUF 10 million or cars above HUF 2 million. Distinctions were also suggested according to the number of children receiving allowances and of number of active earners in the family, but compromises during the drafting of the bill allowed families with up to three children to receive the allowance without resource tests. Table 10.9 shows the proposed criteria.

Table 10.9 ***Proposed Child-Allowance Criteria***

Number of children	Age of children	Wage earners in family	Income Level <HUF 15,500	HUF 15,501 to 16,250	HUF 16,251 to 17,000	HUF >17,001
1	<6	All the same	+++	++	+	n.e.
1	>6	Maximum 1	+++	++	+	n.e.
1	>6	Minimum 2	n.e.	n.e.	n.e.	n.e.
2	All the same	All the same	+++	++	+	n.e.
3+	All the same	All the same	+++	+++	+++	+++

\+ Eligible for a reduced proportionate amount (hereinafter known as partly 2, see table 10.11).
++ Eligible for a proportionate amount (hereinafter known as partly 1, see tables 10.10 and 10.11).
+++ Eligible for the full amount.
n.e. Not eligible.
Note: Income = net monthly income for one member of the family, in HUF (this table includes the criteria and means criteria together as they apply either/or).
Source: Tóth (1996).

The proposal went through significant modifications in Parliament. In addition to the counterarguments put forward by the governing coalition and opposition parties, the decisions of the Constitutional Court obliged the government to revise the proposals. The Court postponed implementation by nine months to allow time for beneficiaries to prepare, then declared the wealth test and discrimination between families with one and two earners unconstitutional. As a result of these modifications, the measures became less radical, although the final changes affected both benefits to replace income and complementary benefits.

Family allowances became a means-tested benefit in 1996. Entitlement for families was set at a level of per-capita incomes up to HUF 19,500/month (HUF 23,400/month for single-parent families). Families with more than three children and families with handicapped children remained exempt from the means-test. The amount of family allowance was tied to the number of children and per-capita income. Costs were shifted to the central budget, while eligibility and payment remained the responsibility of HIF.

Pregnancy allowance was terminated and replaced by a delivery allowance, a one-time allowance equal to 150 percent of the old-age pension minimum. All mothers became entitled to the benefit, which is financed by the central budget. The maternity allowance was lengthened

from 20 to 24 weeks, and decreased to 70 (from 100) percent of previous income with more than 270 days of insurance record, and 60 (from 65) percent for those with insurance records between 180 and 270 days. It is financed by HIF. The childcare fee (GYED) was terminated on April 15, 1996, though payments are continued for children born before that date. The childcare allowance (GYES), which can be claimed until a child turns three, remained a fixed-amount benefit. From April 15, 1996, it was set at the level of the minimum old-age pension and the previous insurance requirement was removed. Nevertheless, the duration of the childcare allowance is regarded as an insurance period if a 6-percent pension contribution is paid. An income limit was also introduced, and mothers (and some fathers) are entitled to the benefit if family per-capita income does not exceed HUF 19,500/month (HUF 23,400/month for single-parent families). There is no income limit for families with chronically sick or handicapped children.

EVALUATING THE IMPACT OF THE REFORMS

As part of the overall transfer system, family benefits and social assistance have played a major role in cushioning against the still dramatic adverse welfare impacts of falling output and increasing earning differences. By doing so they contributed to the social and political stability needed for the success of the transition. The modifications in family benefits under the March 1995 program, and the changes brought about by the 1993 Social Assistance Law, had two major impacts: they have focused attention on fiscal sustainability, and exposed some structural weaknesses of the Hungarian family-benefit and social-assistance system. These are major achievements even if the changes were not fundamental and resulted in only minor savings.

There are not enough data available yet to conduct a rigorous evaluation of the impact of the reforms. However, a special TÁRKI survey in June 1995 was conducted to establish a baseline for future analysis and simulate outcomes for policy options (table 10.10).

The income criteria, if applied alone, would have resulted in an 8-percent exclusion rate. Proposals for the wealth test were found to be symbolic, as the number of families who would remain eligible according to their income, but were excluded by wealth, was very low. This is shown by the 1.6-percent increase in the exclusion rate from 7.6 percent

Table 10.10 ***Impact of March to May 1995 Measures on Households Receiving Child Allowances***

Measure	*Full amount*	*Partly 1*	*Not eligible*	*Total*
Income criterion	89.1	3.3	7.6	100
Home value> 10 million excluded	88	3.1	8.9	100
Car value> 2 million excluded	87.7	3.1	9.2	100
Two adults + one child over 6 years of age excluded	70.1	1.6	28.3	100
Families with three children get back on subjective right, with full amount	70.8	1.5	27.7	100
Households with two adults + one child which satisfy the income test also get back	78.2	1.5	20.3	100
Relaxing the one-earner criterion, postponed implementation, increased income threshold	90.9		9.1	100

Note: Actual take-up rates:
estimated number of families excluded: 127,000 (9.1 percent)
estimated number of children excluded: 164,000 (7.3 percent)
actual number of children excluded: 138,000 (6.2 percent).
Source: Tóth (1996 and 1997).

to 9.2 percent. It is, however, clear from the data that small regulations covering one-child families can affect a great number of families. Excluding those families where two adults take care of a child above 6 years of age would have greatly increased the number of the excluded (adding this measure to those above would have increased the exclusion rate to 28.3 percent). Regulations related to families with three children have a relatively smaller role because they are already in the lower-income categories. Applying only the income test to one-child families would have reduced the number of the excluded significantly.

The last row in table 10.10 shows the effects of Constitutional Court decisions, which halved the number of those potentially affected. The simulations show that some 9.1 percent of the earlier recipient families would have been excluded. Actual result rates proved lower; first estimates in the summer of 1996 showed around 7 percent of the children eligible earlier were excluded. The withdrawal mainly affected higher-income/higher-education families. Also, a higher proportion of those living in Budapest is excluded than in villages and smaller towns (Tóth 1996).

Three additional observations should also be stressed. First, as a result of the universal application of the means-test, those who remained eligible for child allowance could also lose, as the changes in the GYED and GYES system may have affected them as well. Second, those who lost eligibility for child allowances lost the most. Their net income was estimated to have declined by approximately 6 percent. Third, this package may have resulted in some minor compression of income differentials (table 10.11).

On the basis of this preliminary empirical data, and other observations, the changes along the five criteria established in the beginning of this chapter are now evaluated:

Costs

The March 1995 program's main measure was to make child allowance subject to income tests. Cost containment was among the prime objectives. However, as tables 10.3 and 10.6 show, family expenditures showed a declining trend after 1991, when they peaked at more than 5 percent of the GDP. This decline was mostly a result of freezing benefits: family allowances, for example, did not increase in nominal terms since

Table 10.11 ***Percentage of Families Still and No Longer Eligible for Child Allowance and Per-Capita Net Income*** **(simulation results based on a June 1995 survey)**

		Before the measure income		*After the measure income*		*New income as a percentage of old income*
Population Group	Percentage	*Average*	*Percentage of average*	*Average*	*Percentage of average*	
Still eligible	32	9,676	70	9,546	69	99
Only partly 1[a] eligible in future	0	17,275	124	16,620	121	96
Only partly 2[b] eligible in future	0	18,191	131	17,553	127	96
No longer eligible	9	16,593	119	15,590	113	94
Have never been eligible	59	15,743	113	15,742	114	100
	100	13,920	100	13,783	100	99

a. See table 10.9 (++).
b. See table 10.9 (+).
Source: Tóth (1996).

1992. As a result, total family benefits were already down to 2.6 percent of the GDP by 1995. There was a further decline in 1996-97, but the magnitude of the actual cost savings remains to be seen in the perspective of increased administrative costs once such data are available.

Fairness

The exclusion of the richest from the family allowance could have improved the targeting of the allowance somewhat. However, the perception of this was controversial. Certainly, the reform measures provoked a shift in public opinion: targeting and efficiency of public social transfers came to the forefront of the debates. Yet the actual fairness of the implemented means-test and the other vehicles left a number of doubts in the population.

Excluding the top 10 percent does not make the child allowance a classical social-assistance program. The targeting objective still includes horizontal as well as vertical equity considerations. Within the vertical equity objective, poverty alleviation is not the only intended outcome, another aim is modifying pre-transfer income distribution in favor of those who are poorer and are rearing children. Judged against these more complex criteria, the child allowance retained its progressive character and improved its targeting, if only marginally.

The fairness of means-testing, however, should be re-evaluated as further data become available. The eligibility cutoff line is set at a high level of income, and the wealth test was abolished. These circumstances make the income test fully dependent on self-declaration of personal incomes, implying presumably important inclusion and exclusion errors.

Adequacy

While these policy changes raised the importance of means-testing, there remains a number of bottlenecks that impede the proper operation of social-assistance polices in Hungary. Some of these bottlenecks are linked to the relationships between benefits, others concern administration and/or incentive issues.

There is no clear benchmark, or anchor, in the system that allows comparison of programs or relates social-assistance benefits to some sort of sustainable, but still realistic, social minimum. In the absence of such an anchor, it is more difficult to simplify the benefit structure. With the current fiscal constraints, it is not realistic to expect that the multitude of very specific benefits, which only reduce the poverty gap, could be re-

duced to a general benefit that would eliminate the gap (Sipos 1994). It is argued that setting an anchor to which all social-assistance benefits would relate, and evaluating it constantly in the light of an acceptable social minimum, could nevertheless guide social policy in revision of benefits (Ferge 1996).

Measures taken by some local governments to restrict access to social-assistance benefits might have reduced the adequacy of benefits. In the sample surveyed (Harcsa and Zám 1997), the share of families receiving only one type of benefit increased from 60.1 percent to 69.8 percent between 1994 and the first half of 1996 (table 10.12). This means that in 1996 fewer than one third of families could combine two benefits in an attempt to escape poverty. The survey also shows that the benefits used most by local governments—supplemental unemployment assistance, home-maintenance support, public health care and drug cards, and regular social assistance—were those that reflected the most significant changes in status: an increasing share of long-term unemployed losing social insurance eligibility, an increase in non-transitory poverty, and rising housing and medicine costs. The introduction of the means-test and shortening the eligibility period for maternity benefits also give rise to concerns about adequacy of provisions. Abolishing maternity fee and fixing maternity allowances at a very low level may force at least some mothers to re-enter labor markets early, increasing the demand for kindergartens and crèches.

Administration

The 1993 Social Law provided a rather incomplete framework for social assistance. The law neither created a comprehensive social safety net, nor replaced most of the outdated benefits; it merely added new categorical or general benefits, which are expected to respond more directly to the needs exposed by the transition. The main administrative problems of the social-assistance system are summarized below.

In the existing social-assistance system there are too many categorical and general benefits that are difficult to coordinate to ensure a consistent social-assistance system. The fragmented benefit structure has evolved almost arbitrarily, carrying over many ad-hoc elements from the past. In this fragmented benefit structure, it is difficult to ensure that incentives are right, namely that poverty traps and other labor-market disincentives are avoided and that clients are treated equally (horizontal equity). Often those who apply end up differently, depending on the

Table 10.12 ***Distribution of Entitlements by Type of Benefit*** **(percentage of total)**

Entitlement	*1994*	*1995*	*1996*
Households receiving only one type of benefit	60.1	66.2	69.8
Home maintenance support	3.0	6.1	8.1
Supplemental unemployment benefit	9.1	9.2	13.4
Regular child benefit	5.5	4.7	7.3
Temporary support	27.8	22.4	16.2
Transport assistance for the handicapped	6.5	6.3	8.1
Regular social benefit	0.7	0.7	1.7
Public health care	1.3	10.9	8.1
Public health care (equity)	0.8	0.8	1.0
Support for funeral	3.2	3.0	2.5
All other benefits	2.2	2.1	3.4
Households receiving more than one benefit	39.9	33.8	30.2
Home maintenance support + temporary support	2.6	2.8	2.0
Home maintenance support + other support	1.7	3.6	3.1
Supplemental unemployment benefit + temporary support	5.5	3.9	3.1
Supplemental unemployment benefit + other support	7.6	5.8	6.9
Regular child benefit + temporary support	4.7	2.8	2.1
Regular child benefit + other support	3.5	2.9	3.5
Transport assistance for the handicapped + temporary support	2.0	1.0	0.8
Transport assistance for the handicapped + other support	3.8	3.8	3.6
Regular social benefit + any other support	0.4	0.3	0.5
Public health care + temporary support	2.8	2.8	1.3
Public health care + other support	1.0	0.8	0.6
All other benefits	4.5	3.1	2.7
Total	100.0	100.0	100.0

Note: Type of benefits included both cash and non-cash.
Source: Harcsa and Zám (1997).

benefits they applied for, even if they have the same needs. Fragmentation reduces transparency, making it more difficult for clients to apply for the right benefits. This may lead to exclusion and inclusion errors.

The multiplicity of benefits makes administration expensive and obscures administrative costs.

Due partly to the budget crunch, partly to the non-transparent multitude of specific benefits and weak analytical capabilities, many local governments have started to simplify the benefits they actually use by concentrating more on certain ones and introducing the misconceived principle of "one family-one benefit." There are not only too many kinds of benefits, but also too many institutions involved in administering social assistance. These institutions include the Health Insurance Fund, the Solidarity Fund, the Employment Fund, labor offices, county public administration offices, and, finally, over 3,200 local governments. It is very difficult to ensure, in a fragmented administration, that the social policy objectives of the central government are achieved.

Social assistance still is not perceived as a safety net of last resort that should expand to partially offset decreases in other transfers; rather, it is treated as yet another sector competing for budget resources. The budgeting processes that followed the March 1995 program applied a 15-percent cut in public administration across the board, including social assistance.

The financing of local governments may reduce targeting efficiencies since it does not allow earmarking resources for social assistance. Fiscal pressure on local governments, especially on poorer ones, is likely to divert increasing parts of social-assistance allocations to other purposes. This would not only reduce the targeting efficiency of social-assistance transfers, but also add to increasing local differences in assistance levels. Social assistance should act against the emergence of large pockets of poverty. The dynamics of local politics are not conducive to increasing the efficiency of social-assistance threshold incomes. Local pressures for "equal treatment" can easily lead to too small benefits to too many clients (inclusion error) or to denial of benefits of those who should receive them (exclusion error).

Incentives

Some of the incentive problems and weak links between benefits and markets originate in administrative arrangements. The administration and management of social assistance is still dominated by the health sector. This may be due to the fact that poverty was treated as social pathology in Hungary in the 1970s and 1980s, and it was the health sector that had the capacity to address the poverty that emerged then. The labor-market

implications of social-assistance measures are becoming more important, yet the dominance of the health sector persists in supervision and benefit delivery, especially in institutional care.

The TÁRKI study of the possible effects of family benefit reforms also found some drawbacks when analyzing the impact of the changes on those receiving maternity benefits and their labor-market implications. Approximately 89 percent of those on GYED and GYES will still receive the maternity subsidy (although for a shorter period and a smaller amount). However, the exclusion of mothers from the system may cause serious difficulties in access to childcare and the position of mothers in the labor market. Only 50 percent of the mothers receiving maternity subsidies can go back to their original workplaces; others either are not taken, or their workplaces closed while they were on leave (Tóth 1996).

The difficulties associated with income and means-tests also pose some dangers. The reference period is problematic: tax returns only show income of previous years, while monthly incomes can be highly variable. It is difficult to update income certificates and there are other technical problems. Hidden incomes and disincentives also can harm the labor market. In May 1995, TÁRKI assessed increases in child allowances based on a 1994 income test and found that more people had requested increase in allowances than were eligible. While there were many eligible people who did not receive increases, there were even more who declared falsely low incomes in an attempt to become eligible.

CONCLUSION

This chapter provided an overview of the changes in family policies and social assistance and their impact on poverty alleviation. It attempted to evaluate the effects of the 1995 austerity measures on family policies. Five criteria were used for the evaluation: cost, fairness, adequacy, administration, and incentives. The 1995 reform of family policies was based upon a cost-and-fairness argument; that is, in a period of decreasing revenues and increasing clientele, efforts should be made to allocate resources to the most needy. However, the new measures produced new types of problems. The inadequate operation of the means-test introduced new "unfair" features. The adequacy of benefits did not improve, and disincentives may have become stronger within the framework of a more complicated administration. Costs, on the other hand, were contained, though the actual magnitude of the cost savings remains to be seen when more detailed data become available.

NOTES

1. A predecessor of the family allowance was introduced in 1912 in Hungary as a seniority-based benefit available for public-administration employees. The first extension to non-government employees was in the 1930s.

2. The meaning of targeting can be ambiguous. For example, a universal allowance to all disabled may be considered wasteful if a definition of vertical targeting is followed. On the other hand, needs-based measurement would show leakages if the non-disabled poor receive the benefits. Similar, but politically more loaded, problems arise when comparing socially well-integrated individuals or temporarily poor families with families that have problems with social integration or enduring behavioral problems due to marginalization and multi-generational exposure to dire poverty.

3. This trend proved temporary; in the beginning of the 1990s studies showed rural poverty growing again (Andorka 1996).

4. Some commentators argue that fear of open unemployment prompted the political leadership to introduce and extend family benefits in both 1967 and the mid-1980s.

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11 Labor-Market Policy Reforms and the Fiscal Constraint

Tito Boeri and Gyula Pulay

Hungary is the only country of the Visegrad group in which a legal framework to cope with open unemployment had already been established in the second half of the 1980s. Thus, Hungary entered the radical transformations reshaping the economies of Central and Eastern Europe in the early 1990s with an income-support scheme for the unemployed, and a battery of market-policy instruments. Rather than introducing unemployment-benefit systems from scratch, creating new entitlements, and building up new mechanisms to pay benefits and carry out market policies as in other Central and Eastern European countries, Hungary could simply expand the scope of existing institutions and adjust them to market conditions.

The experience accumulated over the 1980s enabled public authorities to avoid the mistakes in designing unemployment-benefit systems—benefits of unlimited duration, too-loose eligibility for those without previous work experience, encouraging de facto higher participation—made in other Central and Eastern European countries. However, mounting unemployment and a shrinking revenue base—due to declining employment and poor tax compliance in the private sector—soon made the unemployment-benefit system fiscally unsustainable. Since 1992 the government has, therefore, cut expenditures by reducing the duration and levels of unemployment benefits. Although mainly aimed at achieving savings, these reforms and changes in the policy stance were also meant to improve work incentives and reduce the stagnancy of the unemployment pool.

Have these policies been successful? The consolidated budget of the two extra-budgetary funds in charge of labor-market policies (the Employment and Solidarity Funds, merged in early 1996) has significantly improved over the last four years. But savings on labor-market policies have to some extent shifted the burden to other cash-transfer mechanisms—mainly early retirement and social assistance—that offer open-ended entitlements, and have adverse work-incentive effects, thereby permanently increasing systemic-dependency ratios. Cuts in benefit durations have not increased flows from unemployment to jobs. From its peak in 1993, unemployment has decreased to stabilize at about 10 to 11

percent of the labor force, but the dominant factor behind the unemployment reductions has been lower inflows into unemployment and larger flows to non-participation rather than stronger flows of jobseekers back to employment.

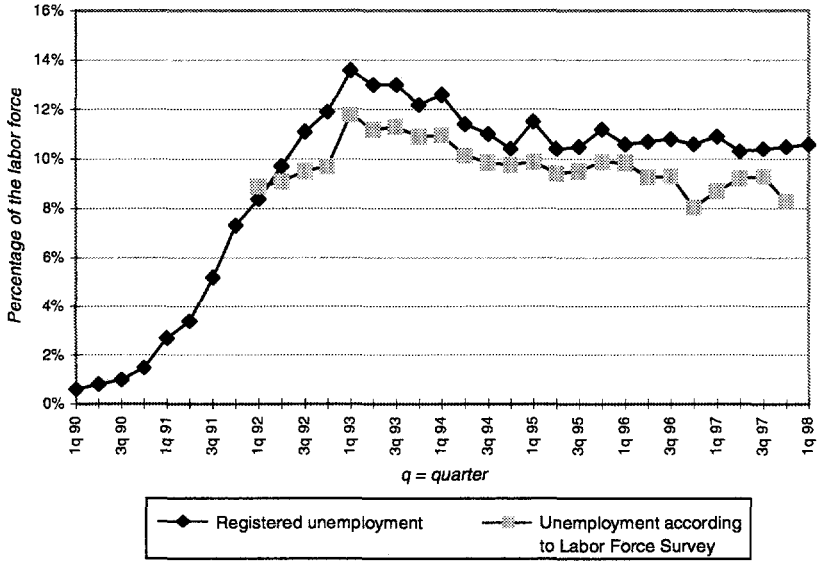
This chapter assesses Hungary's experience in the 1990s with labor-market policy reforms in the midst of a major fiscal consolidation effort. The first section reviews major labor-market developments since the start of transition, followed by a section describing the institutional framework for labor-market policies and the framework's changes over time. The third section discusses the financing of labor-market policies and the expenditure savings made since 1992. The fourth section assesses the effects of reforms on labor-market flows, followed by a review in the fifth section of the effectiveness of active labor-market policies in promoting outflows from the unemployment register to jobs. The final section draws the main policy conclusions from the analysis.

RADICAL CHANGES IN THE LABOR MARKET

Before 1990 Hungary had very low-recorded unemployment, while labor-force participation and employment rates were high by Western standards. Expenditure on social and active labor-market programs to support the unemployed were, thus, also low. The other side of the coin of high employment rates was low productivity and substantial labor hoarding (OECD 1994a). The imposition of a hard budget constraint on enterprises and the opening up to competition, therefore, forced state enterprises to undergo restructuring and reduce the substantial levels of overstaffing inherited from the previous regime.

Employment started to decline in the mid-1980s, bringing unemployment, by the end of the decade, to about 1 percent of the labor force. Labor shedding accelerated dramatically during 1990-92, and at the end of 1993, the employment rate stood at 76 percent of its 1989 level, involving a loss of more than 1.3-million jobs in only four years. As a result of the massive adjustments in employment, the registered unemployed increased from 24,200 at the beginning of 1990 to 705,032 in February 1993—13.6 percent of the labor force. After reaching this peak, unemployment has been slowly, but steadily, declining, and has since mid-1994 stabilized at about 10 to 11 percent of the labor force, with around half-a-million jobseekers registered at labor offices. This trend was common to registered and survey unemployment, the latter measure

Figure 11.1 ***Registered and Survey Unemployment***



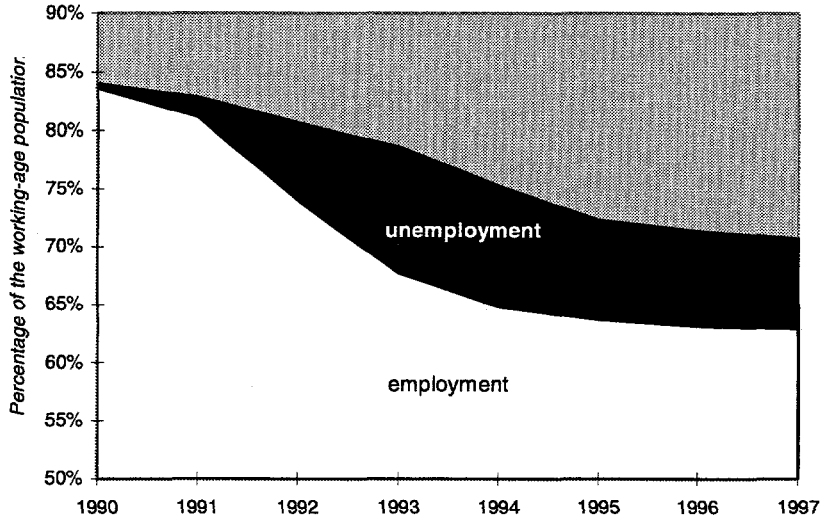
Sources: National Labor Market Center and Labor Force Survey (Central Statistical Office).

being consistently below the former (figure 11.1). Survey unemployment is obtained, on the basis of internationally agreed definitions, from the Labor Force Survey, regularly carried out in Hungary since the first quarter of 1992.

The decline and then stabilization in unemployment was not associated with net job gains. Rather than increasing, employment continued to decline, although at a lower pace than at the beginning of the decade. The recovery from the "transitional recession" has not materialized in net employment gains. During 1993-97, cumulative gross domestic product (GDP) growth has been of the order of 9 percent, while employment has declined by about 7 percent, implying an employment-output elasticity of -0.7 percent. Employment gains, however, are expected in the years to come.

The decrease in both employment and unemployment has prolonged the decline in labor-force participation that started in the second half of the 1980s. Figure 11.2 documents this fall in participation, in that it depicts employment and unemployment as a percentage of the working-age population. As shown in the figure, the labor-force-participation rate declined from about 80 percent in 1989 to about 65 percent in 1996. From

Figure 11.2 ***Employment, Unemployment, and Labor-Force Participation***



Source: Central Statistical Office.

being above average Organisation for Economic Co-operation and Development (OECD) levels, participation rates (defined on the basis of comparable definitions of the working-age population) have therefore fallen below not only those of Western Europe and North America, but also those of countries at comparable GDP per-capita levels, such as Portugal.

Most of the decline in participation rates was recorded at the two ends of the age spectrum: the 15 to 19 age group and those close to retirement. In both cases participation rates dropped significantly below Western standards. The dramatic decline in the participation rate of the eldest age group was encouraged by early retirements and rather liberal access to disability pensions. The shrinking participation of the very young was partly the result of increased enrollment in secondary and higher education, and partly related to the difficulties faced by young people entering the labor market.

Overall, two major phases of labor-market adjustment can be identified. With an almost constant working-age population, almost two thirds of the 1.3-million jobs lost between the beginning of 1990 and the end of 1993 was reflected in the buildup of open unemployment and, to a lesser extent, by labor-supply reductions. From 1993 on, employment and un-

employment have been declining simultaneously, with hundreds of thousands of people dropping out of the labor force.

THE LEGAL FRAMEWORK

When the first symptoms of an economic crisis emerged in the second half of the 1980s, Hungary was one of the first countries in the Eastern bloc to create a legal and institutional framework for coping with open unemployment. Since 1986, the labor departments of local governments have been assigned to register unemployed persons, assist them in finding jobs, and disburse unemployment benefits. The latter were provided only to persons laid off as a consequence of enterprise restructuring. Unemployment compensation was paid for up to one year; in January 1990 the maximum duration of unemployment benefits was increased to two years.

In March 1991 the Act on Employment and Provision for the Unemployed (Employment Law) was approved by Parliament. The Employment Law sets out regulations for the labor market, stipulates the rights and obligations of jobseekers, determines the structure and responsibilities of labor-market institutions, and defines the range of labor-market policies and their sources of financing. The law has been amended several times to adjust it to the changing needs of the labor market. The Employment Law introduced a new unemployment compensation scheme, which covered all those having worked for at least 360 days over the last four years. Those voluntarily quitting work or dismissed due to misconduct had to wait three months before receiving benefit payments. Redundant workers obtained benefits after their severances ran out. School leavers were entitled to benefits equivalent to 75 percent of the minimum wage for six months. The self-employed and working pensioners were, however, excluded, as the Employment Law did not allow them to pay contributions or participate in the unemployment insurance system.

The Employment Law also introduced bridging schemes between unemployment compensation and old-age pensions. In particular, a "preretirement" scheme was offered to persons who had been jobless for at least 6 months, had at least 20 years of service, and were less than 3 years below the official retirement age (55 for women and 60 for men). Another early retirement scheme was introduced for workers threatened by unemployment who had completed the number of years of work required to receive a full old-age pension and who would reach the pensionable age in, at most, five years. This scheme was targeted to large-

scale enterprise restructuring and aimed at reducing the social consequences of mass layoffs. The cost of early retirement is to be paid by the employer who made the person redundant. Under special circumstances, the Employment Fund also contributes to the financing of the early-retirement scheme. It should be stressed that persons under early retirement get a full pension and thus collect a higher cumulative sum of money than old-age pensioners having paid the same contribution for a longer period. Early-retirement provisions exist in most other OECD countries, but—unlike Hungary—usually involve actuarially fair reductions of pensions.

A growing deficit in the extra-budgetary Solidarity Fund used for unemployment-benefit payments soon forced public authorities to increase employer and employee contribution rates and tighten unemployment benefits. Contribution rates were raised, in 1993, to 9 percent of the wage bill (of which 2 percent was paid by employees) from 2 percent (0.5 percent paid by employees) at the beginning of 1991. In OECD countries payroll taxes earmarked to unemployment benefits and active policies rarely exceed 2 percent of the wage bill. The generosity of the unemployment-benefit system also was reduced by gradually halving the maximum duration of benefits (reduced to 18 months in spring 1992 and 12 months in January 1993) and setting lower ceilings and floors for unemployment benefits. Due to low and only partly indexed benefit maxima, the average unemployment benefit decreased from almost 45 to less than 30 percent of the average wage (table 11.1). The decline in the generosity of unemployment benefits is even more evident when unemployment-benefit coverage—the share of the registered unemployed in receipt of unemployment benefits—rates are considered; this ratio declined from 78 percent in December 1990 to about 29 percent in December 1997 (see first column of table 11.1).

FINANCING UNEMPLOYMENT

In addition to paying unemployment benefits, the Solidarity Fund financed (until the beginning of 1996) the operational and maintenance costs of the public employment service. It was funded via payroll contributions and transfers from the state budget. Another fund, the Employment Fund, was in charge of active policies and covered a substantial portion of the early retirement provisions paid for by employers (that is, the early retirement scheme following group layoffs). Until 1993 the Employment Fund was almost fully funded via transfers from the state

Table 11.1 ***Coverage of the Unemployment Benefit System, 1990-1997*** **(beneficiaries as a percentage of registered unemployment)**

Period	*Coverage of unemployment benefits*	*Coverage of unemployment assistance*	*Total coverage*
December 1990	77.6	--	77.6
December 1991	76.8	--	76.8
December 1992	71.9	6.2	78.1
December 1993	51.7	22.4	74.1
December 1994	36.9	39.8	76.7
December 1995	40.1	38.9	79.0
December 1996	29.2	44.3	73.5
March 1997	30.0	42.8	72.8
June 1997	30.0	44.9	74.9
December 1997	29.4	41.9	71.3

-- Not available.
Source: National Labor Market Center.

budget—in line with the principle that active labor-market policies are mainly the responsibility of the government—and revenues from the privatization of state assets. More recently, the Employment Fund has received large transfers from the Solidarity Fund, as the latter attained significant savings from the tightening of unemployment benefits. In 1995 transfers from the Solidarity Fund became the main source of financing for the Employment Fund.

A rationale for having two separate extra-budgetary funds in charge of labor-market policies is that passive income-support expenditure tends to crowd out active spending. However, a high segmentation in spending capacity makes it more difficult to tie together active and passive labor-market policy instruments (for example, to accompany reduced passive spending with an enhanced capacity to run active labor-market programs, as done, for instance, in the Czech and Slovak Republics in 1992). In view of this undesirable rigidity and the fact that the Solidarity Fund was becoming the main source of revenues for active policies, the two funds were merged in 1996 into a new Labor Market Fund.[1] This expanded the scope of some active labor-market programs. For instance, the phasing out of the school-leavers allowance at the beginning of 1996 was accompanied by the introduction of special employment subsidy programs for first-time jobseekers. Savings on passive policies also allowed for an ex-

pansion of the scope of public work programs targeted to the long-term unemployed.

Table 11.2 provides details on the consolidated expenditures and revenues of the two funds. Unemployment benefits have been the major spending category, reaching more than 2 percent of GDP in 1992-93. Passive expenditures have significantly decreased since the tightening of unemployment benefits. At the same time, active spending was scaled down from roughly 0.7 percent in 1993 to about 0.4 percent of GDP in 1997. Revenues increased up to 1993, due to increasing contribution rates, and then declined. Overall, the degree of intermediation of resources involved in carrying out labor-market policies has significantly decreased over time and the new Labor Market Fund would seem to be not only in a position to cover its obligations toward the unemployed, but also to finance active policies without transfers from the state budget.

The above suggests that labor-market policy reforms introduced in 1992-93 have been successful in containing labor-market policy outlays. A number of caveats apply, however, as savings in unemployment bene-

Table 11.2 ***Labor-Market Policies' Expenditures and Revenues*** **(percentage of GDP)**

Expenditures/Revenues	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Expenditures						
Public employment services and administration (a)	0.15	0.15	0.15	0.13	0.12	0.10
Labor-market training (b)	0.15	0.23	0.19	0.13	0.08	0.08
Subsidized employment (c)	0.31	0.28	0.27	0.17	0.20	0.25
Unemployment compensation (d)	2.15	2.02	1.07	0.72	0.64	0.51
Early retirement (e)	0.05	0.11	0.15	0.19	0.17	0.15
Total (of which)	2.81	2.79	1.83	1.35	1.20	1.09
Active measures (a – c)	0.61	0.66	0.61	0.43	0.40	0.43
Passive measures (d – e)	2.21	2.13	1.22	0.92	0.80	0.66
Revenues						
Opening balance	0.17	0.17	0.41	0.44	0.57	0.53
Contribution of employers	0.92	1.32	1.12	0.77	0.89	1.01
Contribution of employees	0.24	0.45	0.39	0.33	0.30	0.35
Contribution of state budget	1.60	1.18	0.27	0.20	0.04	0.00
Contribution of state as an employer	0.34	0.48	0.27	0.16	0.00	0.00
Transfer from privatization	--	0.03	0.16	--	0.10	0.00
Others	0.04	0.02	0.03	0.08	0.01	0.01
Total revenues	3.31	3.65	2.65	1.98	1.91	1.90

-- Not available.

Note: 1997 data are preliminary.

Sources: OECD, Labor Market Policy Database, National Labor Market Center.

fits were partly offset by increases in other social programs that are not (or were not, as in the case of the unemployment assistance provisions[2]) included in the budget of the extra-budgetary funds in charge of labor-market policy.

Reductions in the maximum duration of unemployment benefits, implemented at a time when the duration of unemployment was increasing, caused large cohorts of unemployment-benefit "exhaustees." In 1993 in particular, 320,000 registered jobseekers—more than 7 percent of the labor force—exhausted unemployment-benefit entitlements. To keep longer-term jobseekers and their families from extreme poverty, a new scheme providing income support of the last resort (unemployment assistance) for the long-term unemployed was introduced in April 1992. Eligibility is conditional on having exhausted the maximum duration of unemployment benefits (and keeping registration at labor offices), and having a family income per head below 80 percent of the minimum old-age pension. The assistance benefit covers the difference between the income level of the unemployed (established on a household per-capita basis) and 80 percent of the minimum old-age pension. This top-up scheme, however, covers only unemployed individuals, rather than households with unemployed heads, as in most OECD countries. This bias against large families may explain why not only the bulk, but also an increasing proportion of its recipients are singles, rather than unemployed couples, or unemployed in families with many children, as is often the case in countries with means-tested allowances.

Reducing unemployment benefits shifted the burden of providing income support to the unemployed from the Solidarity Fund to general and local government revenues. The extent of this shift can be fully appreciated when it is known that, by mid-1994, there were more unemployment-assistance than unemployment-benefit recipients in the Hungarian register of jobseekers, and that the combined share of benefit and assistance recipients has been rather stable over time, at around three quarters of all registered jobseekers (table 11.1, third column). Although unemployed-assistance benefits are lower than unemployment benefits, they can be paid for longer periods.[3]

Thus, savings attained on the unemployment-benefit side should not conceal increased expenditure for social-assistance benefits, which are a source of long-lasting entitlements, also because the labor-market administration had less incentive in these cases to check availability-of-work requirements. The past tense is used in this case as, since 1996, the

Solidarity Fund has contributed an increasing proportion of unemployment assistance payments (50 percent in 1996; 75 percent in 1997).

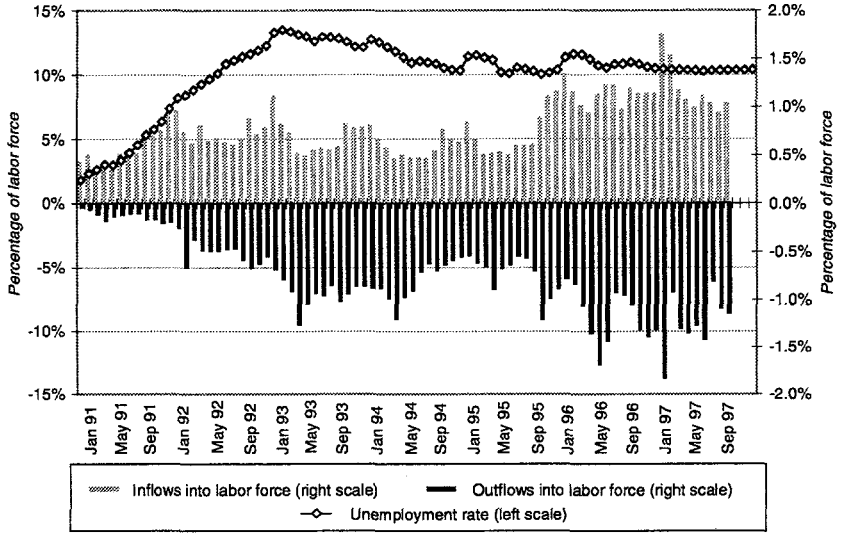
Moreover, reduced unemployment benefits have been a source of increased pressures on early retirement and disability pensions. Inflows into early retirement have only partly declined from the levels reached in the years of most pronounced labor shedding (in 1991 they involved 37,500 persons) and still accounted in 1994 and 1995 for roughly half a percent of the labor force per year. This is well above what is typically observed in OECD countries. As a consequence, the number of the pensioners below the official pension age reached 400,000 in 1995—and the number of recipients of disability pensions of working age more than 200,000. Early and pre-retirement programs have been tightened since 1995. The Labor Market Fund is no longer responsible for the early retirement program, whose full costs have to be borne by employers. Since 1997 a proportional pension reduction has also been introduced for those retiring before reaching the official pension age. Finally, pre-pensions have been replaced by a flat-rate (80 percent of the minimum pension) unemployment assistance, with eligibility criteria very similar to those of the pre-pensions.

In sum, expenditure savings achieved from tightening the unemployment-benefit system have been quite substantial, although part of the burden of providing income support to the unemployed has been shifted to other cash-transfer mechanisms, primarily social assistance, early-retirement schemes, and disability pensions. These shifts always accompany social policy consolidation efforts that are not coordinated across spending categories. Pressures on other schemes exerted by those falling out of unemployment compensation rolls were somewhat reduced in 1996-97 by measures that phased out automaticity in the duration of unemployment-assistance benefits and discouraged early retirement. This suggests that permanent reductions across the board in social expenditure can be attained only by reducing systemic-dependency ratios and stimulating flows from unemployment to jobs. Progress on this front is reviewed in the next two sections.

WORK INCENTIVES AND LABOR-FORCE PARTICIPATION

The reduction in unemployment-benefit levels also aimed at inducing the unemployed to accept jobs at the lower end of the wage distribution to foster flows from unemployment to jobs. Figure 11.3 displays monthly

Figure 11.3 ***Unemployment Rate, Inflows, and Outflows to Job***



Note: Outflows are represented in negative percentages.
Source: National Labor Market Center.

inflows and outflow to jobs from the unemployment register as a proportion of the labor force and the dynamics of the unemployment rate. As shown by the chart, the main factor behind the fall in unemployment would seem to a reduction in inflow rates, rather than exit from the register to jobs.

Thus, unemployment in Hungary continues to be a rather stagnant pool in spite of the economic recovery experienced in recent years. According to data from the national Labor Force Survey, the incidence of long-term unemployment is above 50 percent. Moreover, matched records across different Labor Force Survey waves suggest that probabilities of leaving unemployment for jobs have not increased over time and that outflows from unemployment to inactive status are sizeable. Hungary is also one of the OECD countries with the largest proportion of discouraged workers (persons without employment, available for work, but not seeking jobs because they deem that there are no job opportunities for them); in 1996, these discourage workers accounted for about 3 percent of the labor force. Even in OECD countries with a large incidence of long-term unemployment, discouraged workers rarely exceed 1 percent of the labor force.

Table 11.3 decomposes flows in exit from unemployment compensation rolls since 1992. As shown in the table, the halving in the duration of benefits has doubled the share of those who leave unemployment compensation rolls only because they have exhausted the maximum duration of benefits. In other words, the lower levels of protection offered by unemployment insurance do not seem to have stimulated more exits to jobs—the share of those ceasing to receive benefits because they found jobs actually declines over time.

Microeconomic evidence from individual unemployment records also suggests that the tightening of unemployment benefits has not boosted outflows to jobs, but, if anything, has induced greater flows to non-participation. In particular, Micklewright and Nagy (1996a), based on comparisons of exits from unemployment to employment before and after the tightening of benefits, report that the cuts in the generosity of the unemployment-benefit system have not substantially increased re-employment probabilities. As in OECD countries, a spike in exit from unemployment to jobs is observed immediately after the exhaustion of benefits and primarily among those who do not qualify (for example, because their spouses are working) for unemployment assistance. But after the spike (which involves no more than 2 percent of the exhaustees) exit rates go back to the very low levels preceding benefit exhaustion (Micklewright and Nagy 1996b).

Table 11.3 ***Decomposition of Outflows from Unemployment Compensation Rolls***

Variable	*1992*		*1993*		*1994*	
Outflows to jobs	154,569	44.7%	163,939	27.8%	121,284	24.7%
Exhausted benefit	102,483	29.6	308,747	52.4	279,423	56.9
Active labor-market programs	23,377	6.8	37,211	6.3	32,092	6.5
Others	65,581	19.0	78,790	13.4	58,236	11.9
Total	346,010	100.0%	588,687	100.0%	491,035	100.0%
Variable	*1995*		*1996*		*1997*	
Outflows to jobs	89,843	24.9	88,611	23.0	87,718	26.8
Exhausted benefit	207,186	57.4	238,121	61.7	186,976	57.1
Active labor-market programs	15,406	4.3	18,497	4.8	14,055	4.3
Others	48,689	13.5	40,543	10.5	38,737	11.8
Total	361,124	100.0%	385,772	100.0%	327,486	100.0%

Source: National Labor Market Center.

The limited effects of the tightening of benefits on re-employment probabilities can be explained by the fact that stronger search intensity and lower wage aspirations on the part of the unemployed can do little under conditions when there is an aggregate lack of vacancies—such as those prevailing at early stages of the transition, during the so-called transitional recession. This is consistent with the discouraged-worker effects discussed above.

More recently, other factors affecting the supply side of the labor market may have started to negatively affect flows from unemployment to jobs. In particular, the documented large flows from unemployment insurance to (means-tested) social assistance since 1993, and lower inflation that preserves the real value of cash transfers, may have negatively affected work incentives. Due to the means-testing of unemployment assistance and the presence of in-kind benefits (which are a source of indivisibilities), the unemployed may actually lose income by accepting low-paying jobs.

However, studies carried out in Hungary on the basis of follow-up surveys of the unemployment-benefit exhaustees (Lázár and Székely 1994; Micklewright and Nagy 1996b) do not point to significant effects on work incentives of the shift from unemployment insurance to social assistance. Family characteristics do not negatively affect outflows to jobs, as in other countries where the shift to means-tested benefits typically reduces exits to jobs of the unemployed living in large families or with an unemployed spouse. Moreover, a survey carried out by the National Labor Market Center among the 438,700 unemployed who left the register after exhausting their eligibility in the 1992-95 period shows that about one third of them has become inactive, a few less remained unemployed, and a few more found new jobs.

The scarce disincentive effects associated with the shift from unemployment benefits to social assistance may be due to the demand factors mentioned above (an overall lack of vacancies affecting all those on the register, independently of their benefit status). Another explanation is in the particular benefit formula used in Hungary, which does not top up the income of all members of the household, but only the income of the unemployed person. Clearly, this reduces the extent of poverty and unemployment traps associated with social-assistance provision, although it may also raise issues concerning the adequacy of social assistance as an income-support scheme of the last resort.

As discussed in the previous section, in addition to flows to social assistance, significant flows to the pension system have originated from the unemployment register, especially after the tightening of unemployment benefits. While in the early 1990s flows from employment to early retirement tended to occur without intervening unemployment spells, since the beginning of 1993 more and more unemployed drew unemployment benefits up to their maximum duration, and then moved to the pension system. Early retirement is often regarded as the only option for older persons. Many early retirees then turn to the informal economy and collect double non-taxed income.

ACTIVE POLICIES

Active labor-market programs may play an important role in reducing the stagnancy of unemployment in Hungary, particularly under improved macroeconomic conditions.

The mix of active labor-market programs implemented by the Hungarian National Labor Center (NLC) is similar to that offered in other market economies. Training and retraining courses are provided either to the unemployed—who may get initial vocational training or retraining for a new profession—or to employed persons who are at risk of losing their jobs, work in enterprises undergoing restructuring, or are temporarily engaged in public works. Due to resource constraints faced by the NLC, retraining the employed is kept on a much smaller scale than training for the unemployed. Expenditures for training include tuition fees, travel costs, counseling attached to training, and so on, and an allowance paid to the unemployed (providing until recently[4] a 10-percent premium over ordinary benefits to motivate participants). Selection of candidates for training is made by the local labor-market centers on the basis of personal characteristics, skills, and labor-market needs. The rate of completing training is usually very high—between 90 and 95 percent. However, according to the monitoring system of the NLC, only about 45 to 50 percent of participants are placed in jobs within six months after training.

While training is often offered to persons with favorable labor-market characteristics,[5] public-works schemes mostly are oriented toward the long-term unemployed. Public works typically involve maintenance or upgrading of local infrastructure, street cleaning, and other tasks not requiring special skills or training, although recently some effort has been made to enhance the quality of jobs offered under this program.

Inflows to public-works schemes increased together with the spread of long-term unemployment, and by 1995-96 this program became the most important active labor-market instrument in terms of participation and expenditure. Public works schemes have been quite successful in providing poverty relief,[6] but their record in turning temporary into permanent employment is poor. According to follow-up surveys carried out by the NLC and other studies (O'Leary 1995), less than 5 percent of participants were offered regular contracts upon termination of public-works contracts.

The NLC offers several subsidized employment schemes. One is oriented toward long-term jobseekers: subsidies are offered covering up to 100 percent of wage costs for one year, on condition that the employer hires people who have been unemployed for over six months. This program has gradually gained momentum becoming, by 1994-95, the third most relevant active labor-market program. A survey carried out in 1994, however, found significant deadweight effects of this program: the majority of the employers who obtained the subsidy declared that they would have hired new staff anyway and that the subsidy had merely eased the task of expanding capacity.[7] On the other hand, the survey also showed that two thirds of the employers would not have recruited a registered job seeker without the subsidy. The deadweight effect is therefore compounded by substitution of unemployed for (presumably employed) other jobseekers. This substitution, however, may be an objective in its own right in Hungary, in the light of the stagnancy of its unemployment pool. People with vocational training or lower levels of education are among the main beneficiaries of this scheme.

In 1996, together with the removal of the allowance for school leavers, a new scheme was introduced to assist first-time jobseekers. Under this scheme, employers gets wage subsidies for providing employment at no less than four hours per day to school leavers for at least one year. Another subsidized employment scheme aims at assisting enterprises undergoing restructuring and at preventing mass layoffs by subsidizing short-time work. When an enterprise is forced, for economic reasons, to save on labor costs, and opts for working-time reductions (involving at least one third of its staff) rather than labor shedding, it may apply for a wage subsidy covering up to 50 percent of wages for up to one year.

Finally, assistance is provided to unemployed persons wishing to start their own businesses. These startup loans involve six-month unemployment benefits plus the reimbursement of up to 50 percent of the costs of business services (for example, training or counseling) provided to

new entrepreneurs. Encouragingly enough, the survival rate of small firms established with the help of the program is remarkably high: between 73 and 80 percent of beneficiaries were still operating one year after the delivery of the subsidy. However, 63 to 70 percent of all the beneficiaries admitted that they had intended to start their own businesses in any event, and that the program had merely strengthened this intention, while only 15 to 20 percent would not have done so without the program (the failure rate of this group was also higher than the average).

Overall, there is mixed evidence about the effectiveness of active labor-market programs in absorbing unemployment. Training programs would seem to be the most unsuccessful instruments and their relevance in the active labor-market program budget has been decreasing over time. Public works do not enhance exit probabilities of participants (perhaps because a stigma is attached by employers to participation in these schemes), but it is debatable whether the purpose of these programs is not simply to provide poverty relief in exchange for publicly useful services. Some employment subsidies, particularly startup loans, display a satisfactory record. Although they may give rise to deadweight costs and substitution effects, they ultimately offer an alternative to benefit provision, and hence may not be much more costly than keeping people on unemployment compensation rolls up to the maximum duration of benefits.

CONCLUSION

Hungary has made considerable progress in its transition to a market economy, while containing the hardship involved in dismantling its old industrial structure and privatizing state assets. More than other Central and Eastern European countries, Hungary has combined privatization with the buildup of a corporate governance structure capable of exerting effective control over management. Hungary has also introduced rather strict bankruptcy regulations and enforced them to a greater degree than other transitional economies. All this has involved more labor shedding than in other Visegrad countries and sharp reductions in employment to population ratios. As only a fraction of job losses has translated into rising unemployment, large drops in participation rates have occurred.

Although Hungary already had in place an unemployment-benefit system, pressure on this scheme was so strong that part of the burden was shifted to the pension system, allowing for large flows into early retire-

ment and disability pensions. These "soft" measures to accommodate employment reductions increased social spending dramatically and permanently at a time when the revenue base was shrinking because of employment declines and drops in real wages—also due to widespread tax avoidance in the emerging private sector. Rather than tightening access to the pension system and narrowing the scope of policies reducing labor supply, Hungarian authorities initially confined fiscal consolidation efforts in the social-policy field mainly to reductions in the generosity of the unemployment-benefit system. This policy was somewhat successful in reducing labor-market policy outlays, although part of the burden was shifted to local authorities providing income of the last resort to unemployment-benefit exhaustees. However, there was not the expected increase in outflows from unemployment to jobs. Hence, rather than reducing long-term unemployment, cuts in the generosity of the unemployment-benefit system resulted in further reductions of labor supply, and systemic-dependency ratios continued to rise.

So far, the unemployed have paid most of the costs of fiscal consolidation. Only in the last two years have reductions in social spending started to address entitlements to pensions and out-of-work subsidies other than unemployment benefits. Although much remains to be done (as discussed in other chapters of this book), measures such as tightening the early retirement and disability schemes, phasing out the pre-pension system, and the gradual increase of the retirement age will certainly contribute to the long-term sustainability of the social security system, and also make the sharing of costs of adjustment more equitable.

GDP growth has been accompanied with further declines in employment so far. Labor-market policies will play a very important role in the years to come in enhancing the job generation potential of the recovery. It is important that policies be well-targeted and their efficiency constantly monitored. Fortunately, the Hungarian Labor Market Center has developed an active monitoring system providing timely information on the cost-effectiveness of programs and their impact on outflows to jobs. This monitoring system will guide improvements in the labor-market policy mix, removing program categories—such as training—that have proven least successful, and expanding the scope of more successful schemes, such as startup loans.

Reduced unemployment-benefit duration and spreading long-term unemployment have put an increasing share of the unemployed under means-tested income-support schemes. Although high inflation and an overall lack of vacancies have so far prevented this shift from exerting a

significant impact on outflows to jobs, and on the distribution of unemployment across households, experience from OECD countries suggests that means-testing has strong adverse effects on outflows to jobs. It is therefore all the more important that these disincentives be minimized by reducing those features of the unemployment assistance system that are a source of poverty and unemployment traps, and increasing motivation to search for jobs and testing willingness to work (by offering slots in public work programs, for example) for the long-term unemployed.

Finally, savings on labor-market expenditure made possible by reducing unemployment benefits and enhancing the cost effectiveness of active policies should go hand-in-hand with reductions in statutory contribution rates to the Labor Market Fund. Payroll taxes earmarked to this extra-budgetary fund remain high by Western standards, and a protracted accumulation of surpluses in this fund drains resources that could otherwise be used to create jobs. High taxes on labor encourage higher capital intensity, and reduce the job generation potential of economic growth. Moreover, high statutory-contribution rates stimulate the expansion of the informal sector. The Hungarian experience of the 1990s suggests that too-high payroll taxes can set in motion a vicious circle leading to an increased tax avoidance and mounting statutory-contribution rates.

NOTES

1. Three other related extra-budgetary funds (the Vocational Training Fund, the Rehabilitation Fund, and the Wage Guarantee Fund) were also absorbed into the Labor Market Fund.

2. As of January 1, 1997, the newly established Labor Market Fund contributed 75 percent of the unemployment assistance paid for by local communities.

3. Before July 1995 the assistance was paid without a time limit. Since then it has been paid for two years, after which persons have to be employed for at least 180 days to regain entitlement to unemployment benefit for 45 days. Afterward they are again entitled to unemployment assistance for two years. This opens up the possibility of vicious circles in which the unemployed regain access to unemployment-benefit systems.

4. Unemployed persons undergoing training currently get their unemployment benefits during their eligibility period, or a flat training allowance if they have exhausted the maximum duration of benefits.

5. Micklewright and Nagy (1994) report that well-educated and young workers are preferentially targeted for training.

6. The offer of slots in public-works schemes has also been used as a method to enforce availability to work tests for the long-term unemployed.

7. Most of the employers benefiting from this scheme employ five or fewer workers.

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PART IV

PUBLIC MANAGEMENT AND INSTITUTIONAL REFORMS

12 Privatization: Restructuring Property Rights in Hungary

Anita Papp, Millard Long, Mihály Kopányi, and Péter Mihályi

Privatization is at the center of the transformation of socialist systems into market economies. Privatization can be assessed from many aspects: social and economic organization, corporate governance, efficiency in resource use, enterprise restructuring and the financing of new investments, the distribution of wealth and power, and impact on public finances. All of these aspects cannot be described, let alone analyzed, in a single article; this chapter focuses on the public finance aspects of privatization (Hachette and Lüders 1991). It also attempts to make a second major point—that the market value of assets, whether one is attempting to assess the value of assets to be privatized or their value after privatization, is context specific, depending upon how the assets are to be used and on market conditions. Even privatized assets have lesser value where markets are impaired and property rights unclear.

By the end of the 1980s it was apparent that government control of the major assets of production was grossly inefficient. In the socialist countries of Central and Eastern Europe demands to reform the economic, political, and social aspects of society were overwhelming, and led to the historic changes that began in 1989. Privatization—the reassignment to the private sector of many of the property rights that had belonged to the state—was a cornerstone of reform. The change entailed a redefinition of the role of the state from owner and operator of productive property to facilitator and regulator of private-sector production. Beside reassignment, privatization entailed much clearer specification of property rights and responsibilities that often had been amorphous under socialism.

This redefinition of state activities necessitated a corresponding redefinition of state financing, both in terms of expenditures and receipts. The state could no longer manipulate product pricing to generate enterprise surpluses then used to finance its general activities. At the same time, the state was no longer required to finance loss-making enterprises, or provide the public with a range of subsidized services, such as maintaining government-owned dwellings. In line with the redefinition of its role, the state required less financing but, because it could no longer de-

pend on corporate surpluses, it needed to raise resources in a different manner—through taxation of personal and corporate income and value-added or sales taxes to finance general government expenditures, and wage taxes to support social security.

These aspects of privatization have led to permanent changes in the structure of public finance. Privatization itself had a non-recurring impact through the proceeds received from selling state assets. What to do with these one-time receipts led to sharp policy debates, resolved in Hungary by using the bulk of the funds to repay external debt.

In addition to changes in central government receipts and expenditures, in most of the formerly socialist countries there was a reassignment of responsibilities and property between the national and sub-national levels of government. This was not privatization, but another form of state divestiture of assets, in this case in favor of municipalities. Many of the problems posed by this fiscal federalism have not yet been adequately resolved, as the sub-national level has been assigned responsibilities it has not yet developed an adequate tax base to finance (see chapter 17).

Much of the asset divestiture has taken place only in the last few years. Hence, it is really too early to judge its impact on growth and asset values. Hungary has clearly established conditions attractive to foreign investors. Of all the Eastern European countries, Hungary has been the most open to foreign sales, avoiding "economic nationalism" in the privatization process in industry, banking, and infrastructure, though neither corporations nor foreigners have been allowed to purchase agricultural land. Though a small country, Hungary attracted $13 billion in foreign direct investment (FDI) by end-1995, around 51 percent of all FDI in Central and Eastern Europe. About one third of this, $5.1 billion, went into purchasing and recapitalizing companies sold by government. The large inflow of foreign funds has enabled Hungary to reduce its external debt, in practice, to engage in a significant debt-equity swap. Furthermore, foreign firms have not just purchased assets; they have brought in significant additional funds to upgrade company capital stocks. It is somewhat harder to judge the results for firms sold to domestic investors, but overall it would appear that privatization has led to better asset management and corporate governance; to greater efficiency in production, restructuring, and modernization of older enterprises; to the production of new and improved products; and to a greater export orientation.

While, in general, privatization in Hungary can be said to be successful, it was not accomplished without problems. Between 1989 and 1997 there were three changes in government and five major reorganizations of the privatization apparatus, each of which lead to modifications in divestiture strategy, methods, rhetoric, and personnel. When assets were offered to domestic investors, the coexistence of cash, voucher, and other soft-payment terms produced many murky deals involving political favoritism and outright corruption, which in turn led to public skepticism and disenchantment with the privatization process. In some cases, ill-defined property rights during the transition led to asset stripping, leaving shell companies with debts that could not be repaid to banks, which in turn became insolvent. Privatization involved social and economic change of unprecedented magnitude. It had to be done, but it could not have been, and has not been, accomplished without inequities and further problems that must be resolved.

Privatization remains incomplete, with some assets still to be divested. Ownership changes are often transitory, with initial owners clearly unable to hold and manage the assets acquired. Most importantly, the smooth functioning of asset markets is impeded in ways that diminish the private and social returns to privatization (for example, the survival of monopolies in some important areas of infrastructure, political intervention in energy and transport pricing, prohibitions on land sales, and diffuse land ownership in agriculture). The Central European economies need to further perfect their markets to reap the full rewards of privatization.

The first section of this chapter defines the changes in property rights; the second measures the value of assets privatized in Hungary. The third assesses the impact of privatization on public finances. The fourth section considers the major changes needed to make asset markets work more efficiently, and the fifth section presents a brief conclusion. The appendix, which gives details on privatization by sector, covers the years 1990 to 1995, with 1995 being the last year for which comprehensive data are available.

REASSIGNING PROPERTY RIGHTS

The government of Hungary has now divested itself of 80 percent of its privatizable assets. Privatization in most of the other transitional economies has been somewhat less than in Hungary, but still substantial.

Privatization was broad as well as deep: ownership of industrial assets, retail shops, agricultural assets including land, dwellings, and to a somewhat lesser extent infrastructure, has been transferred. This transfer of ownership by democratic means is unprecedented and, as a fraction of the capital stock, dwarfs the privatizations that have taken place in countries of the Organisation for Economic Co-operation and Development (OECD) and Latin American countries (Mihályi 1996).

Conceptually, privatization seems relatively easy to define: through one means or another assets that were owned by the government sector are transferred to the private sector. In practice, public and private ownership are not distinctly different states; rather there is a continuum. Ownership of an asset connotes a complex set of property rights: the right to decide on the use of the asset, to dispose of the income stream generated by the asset, and to sell the asset and control the proceeds from the sale. The government may choose to limit one or more of these rights; hence, rather than being unconditional, ownership of assets, even after privatization, is frequently constrained by the government.

Under socialism, the reverse was also true; the private sector had considerable property rights in assets that were nominally owned by the public sector. Housing stands as an example: much of the housing stock was privately owned in Hungary, but dwellings owned by the government were rented at far below comparable market rates—tenants had appropriated most of the income stream potentially generated by the housing stock. Furthermore, tenants could not easily be forced to vacate their apartments. Hence, even prior to the formal transfer, households had secured much of the value of ownership of dwellings. Thus, formal housing privatization largely made *de jure* what had already existed *de facto* (Dániel 1996).

The Hungarian government has retained partial equity ownership in many of the industrial and infrastructure assets sold, often retaining enough of the ownership to block certain types of decisions. But even for those assets whose nominal ownership was fully transferred, the government has restricted certain ownership prerogatives, for example, the right to sell agricultural land and the right to set energy prices. In sum, one should not think of assets as either being publicly or privately owned, but recognize that there is a complex of property rights whose distribution between the public and private sectors has changed. For privatization to achieve its intended goals, more ownership rights need to be transferred to the private sector as markets are perfected.

Various approaches to privatization have been employed in the region, and even within single countries. In Hungary's financial sector, cash sales and recapitalization methods were employed; for other assets, cash sales predominated. Many countries distributed vouchers to their populations, free or at very low cost, that could be exchanged for assets. Vouchers, rather than money, ostensibly accelerated the process, assured fairness, and kept assets in the hands of nationals, who could not afford to buy them for cash. In Hungary, more than most other transitional economies, high-value assets were privatized for cash rather than given away through voucher systems (Kornai 1990). Voucher transactions represented only about 7 percent of all ownership transfers, including land, dwellings, and other productive assets.

Unlike other transition countries, in Hungary, vouchers were distributed exclusively to compensate citizens for confiscated properties and political mistreatment by prior regimes. These vouchers were tradable securities, floated on the stock exchange and over-the-counter markets. They were used as cash-like notes in paying for state assets offered for voucher transactions. Initial holders of vouchers had preferential or exclusive rights to acquire certain assets, such as land and dwellings. Those who purchased vouchers in the secondary market used them mainly to acquire industrial assets. However, vouchers had to be used in combination with cash payments by the winners of auctions for industries. Municipalities, which collected vouchers in exchange for dwellings, and cooperatives, which received vouchers in exchange for land, used their vouchers to acquire industrial assets. Voucher sales had a major impact on land ownership, somewhat less in the case of dwellings, and only a minor impact on privatization of industrial assets.

HUNGARY'S CAPITAL ACCOUNTS

To understand the changes in asset ownership, it is useful to conceptualize the economy as comprising several sectors (central government, municipalities, households, and foreign) owning a variety of assets (land, dwellings, enterprise and infrastructure assets, municipal assets, and financial holdings). Unfortunately, there are no official capital accounts for Hungary reporting the type and amount of capital at the outset of the privatization process, or the changes in ownership over the intervening years. So, first, capital accounts for 1990 and 1995 (table 12.1) and an ownership transition matrix (table 12.2) needed to be constructed. Unfortunately, the available data set is not rich, and has conflicting

Table 12.1 *Domestic Assets*

Sector	1990 Current HUF billion	1995 Current HUF billion	1995 In 1990 prices[a]	1995/1990 (percentage)
Productive assets	3,602	8,792	3,036	84
Privatized through state asset management agencies and state asset management agencies' holdings[b]	1,829	3,487	1,207	66
Agricultural land	1,200	2,560	880	73
Forest	210	680	235	112
Domestic greenfield	350	1,515	524	150
Foreign greenfield	13	550	190	1464
Productive infrastructure	1,090	2,920	1,004	93
Public roads	750	2,120	727	98
Rail	210	460	159	76
Post, broadcasting	30	70	24	81
Water network	100	270	93	93
Other domestic assets	10,060	18,220	6,304	63
Public	3,960	7,500	2,595	66
Central budgetary institutions	260	1,300	450	173
Defense	1,000	1,000	346	35
Social security funds[c]	0	100	35	
Municipal assets[c]	2,700	5,100	1,765	65
Private	6,100	10,720	3,709	61
Housing	5,500	9,400	3,253	59
Consumer durables	600	1,320	457	76
Domestic equity total	14,752	29,932	10,351	70
Net foreign debt (+)	1,007	2,271	786	--
Gross domestic assets[d]	15,759	32,203	--	204
Gross domestic assets[a]	--	--	11,143	71
Gross domestic assets[e]	--	--	14,638	93

-- Not available.

Note: The numbers in this table are estimates and, at best, rough approximations. While considerable work has gone into the preparations of these estimates, there are serious conceptual and data difficulties. In most cases an attempt has been made to estimate the market value of assets either through utilizing cash flow of a certain asset (for example, land) or adjusting the official results of asset valuations done by certified auditors (for example, railways). However, in a number of cases (central budgetary institutions, social funds) the only information available was the book value, which was used as the best proxy for market value. To assess the value of national roads, the method (cost of new production) applied by the National Road Directorates was relied upon.

a. GDP deflator.

b. Includes private (domestic and foreign) shares in privatized companies.

c. Transfers from state asset management agencies.

d. Current prices.

e. U.S. dollar foreign-exchange deflator.

Sources: See Data Sources in the Reference section of this chapter.

Table 12.2 *Ownership Matrix* (Hungarian forint [HUF] billion, at current prices)

	State		Municipalities		Social Security funds		Domestic private sector		Foreign sector		Gross domestic assets	
Equity class/equity owners	*1990*	*1995*	*1990*	*1995*	*1990*	*1995*	*1990*	*1995*	*1990*	*1995*	*1990*	*1995*
Assets privatized or transferred through state asset management agencies and state asset management agencies' holdings	1,731	1,140	154	76	0	92	18	1,410	80	937	1,983	3,655
Domestic greenfield	0	0	0	0	0	0	350	1,515	0	0	350	1,515
Foreign greenfield	0	0	0	0	0	0	0	0	13	550	13	550
Agricultural land	1,116	510	0	0	0	0	84	1,600	0	0	1,200	2,560
Forest	210	410	0	0	0	0	0	270	0	0	210	680
Other state assets + state infrastructure	2,350	5,220	0	0	0	0	0	0	0	0	2,350	5,220
Social security funds	0	0	0	0	0	8	0	0	0	0	0	8
Municipal assets	0	0	2,546	5,024	0	0	0	0	0	0	2,546	5,024
Housing assets	700	0	300	900	0	0	4,500	8,500	0	0	5,500	9,400
Consumer durables	0	0	0	0	0	0	600	1,320	0	0	600	1,320
Domestic equity total	6,120	7,280	3,000	6,000	0	100	5,552	15,065	93	1,487	14,752	29,932
Net foreign debt (+)	1,047	1,482	0	0	0	0	–40	789	0	0	1,007	2,271
Gross domestic assets	7,172	8,762	3,000	6,000	0	100	5,512	15,853	93	1,487	15,759	32,202
Net foreign claims (–)											–1,100	–3,758
Gross national assets											14,659	28,445
Changes in nominal terms	1.00	1.18	1.00	2.00			1.00	2.89	1.00	15.99	1.00	2.04
Changes in real terms (GDP deflator = 2.89)	1.00	0.41	1.00	0.69			1.00	0.98	1.00	5.53	1.00	0.69
Changes in real terms ($deflator = 2.2)	1.00	0.54	1.00	0.91			1.00	1.31	1.00	7.27	1.00	0.93

Note: Please refer also to Note in table 12.1. The term "assets privatized through state asset management agencies" does not represent state ownership exclusively, but state *majority* ownership. The appropriate line in table 12.1, therefore, also includes minority private ownership (both foreign and domestic) for 1990 and 1995. For the purpose of identifying the actual ownership structure, the value of minority private shares was estimated with the help of the Economic Information Institute of the Central Statistical Office and the State Asset Management Agency. Accordingly, "state assets" in this table reflect the state share in majority state-owned companies. Transfers to municipalities and social funds also are treated differently in the two tables. In table 12.1 assets transferred are taken into account at the recipients (municipality or social funds), while in this table, at the source of origin. As a result, this table provides information not only about the ownership structure of assets, but the origin of assets held by a given equity class.

Sources: See Data Sources in the Reference section of this chapter.

information, so estimates needed to be cobbled together using various sources and methodologies. The reader should be cautioned, then, that the numbers must be treated as estimates and viewed as, at best, rough approximations.

There are different asset-valuation procedures, namely market value, book value, cost of new production, and liquidation value. None of these can be used for all asset valuations and transfers in transition economies. Where possible, we have relied on market values.[1] In a strict economic sense, the market value of assets is the present value of future income flows. Privatization revenues reflect the market price of the equity component, that is, the asset value less outstanding debt obligations. This has by and large been true in Hungary for assets sold to foreign investors, but it has been less true for domestic sales, in which various preferential methods were applied. For assets for which market values are unavailable, for example, for non-tradable assets (roads, utilities) other accounting methods have been used, such as book values, as the best available approximation for market values. Due to very limited land sales, the market value of the land had to be projected from the yields and prices of major agricultural products.

The estimates of the capital stock are presented in table 12.1 in both nominal and real terms, correcting for price changes using the gross domestic product (GDP) deflator. Given the substantial inflation over the period, estimates in real terms are of greater interest. There was a decline in the value of the total capital stock and most of its components during 1990-95. Using the implicit price deflator of the GDP, the decline is 30 percent; expressing the real value in dollar terms, the decline would appear to be only 10 percent. For comparison, using the implicit price deflator, Hungary's GDP declined by 9 percent during 1990-95, but expressed in constant dollars grew by 13 percent[2] (World Bank 1997; IMF 1996a). Whichever way one chooses to look at the issue, the value of real capital appears to have declined more than GDP over the period. Data from tax returns published by the Central Statistical Office support the argument that annual net accumulation on average was negative in real terms over the period.

The adoption of international accounting standards, tough bankruptcy rules, and market-driven privatization unveiled the facts of asset devaluation. The underlying factors behind asset devaluation are artificial initial valuation of assets, deep business restructuring of enterprises,

liquidation of nonviable enterprises, and slow growth. The decline in asset values coincided with privatization, and was not the result of it.

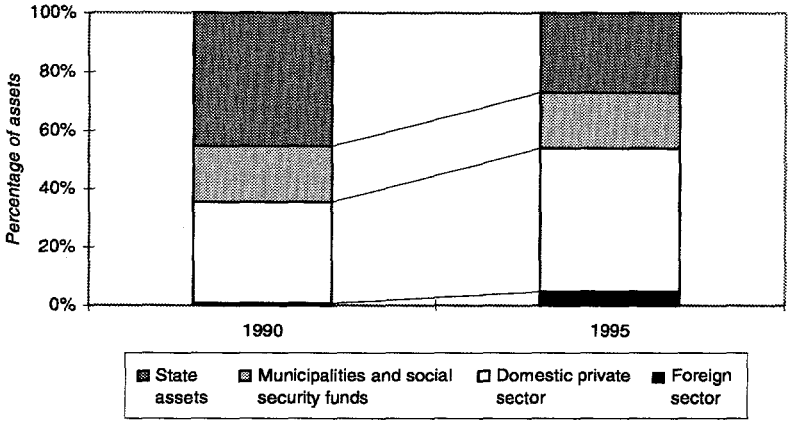
The estimated decline in asset values is probably overstated. The initial book values almost certainly overestimate the market values of assets in state hands. For example, in Hungary the State Asset Management Agency had no opening balance sheet and the initial valuation can only be made retrospectively. As mentioned already, book values, even in market economies, differ from market values, but the problem is even more severe in transitional economies. Assets have market value only within their productive contexts. The initial book values presumed the use of assets to produce products of a physical and technical standard suited to the markets of the Council for Mutual Economic Assistance (CMEA). Once CMEA trade had collapsed and products had to meet OECD standards, the market value of the assets was much reduced. That banks had to write down claims, primarily against enterprises, by $3.2 billion indicates the substantial size of the overvaluation.

In some cases not only were initial values overstated, but final values may be understated. For example, during the first years of transition, state enterprises ran substantial losses. To cover those losses, inadequate provisions were made for asset depreciation, in other words, investment was inadequate to maintain asset values. This process was even given a name, *silent liquidation*. In fact many of the loss-making enterprises eventually had to be formally liquidated. In the later years these assets were valued in the financial statements of the state agencies at their liquidation values. In practice, private investors were often able to put these assets to use in new ventures; and the loss to the economy was probably less than the difference between book values and liquidation prices.

The value of land declined by 27 percent at constant prices over the period. The process and form of ownership transition significantly influenced land values. Unstable political and legal circumstances, then a broad application of compensation schemes, led to a decline in production and efficiency in agriculture. The transition also dispersed ownership, with roughly two-million owners and contradictions between ownership and use of the land. Adverse features hindered development of an efficient land market (Brooks 1995; Csáki 1997).

In parallel with divestiture of state assets, major changes took place in the ownership structure of assets (see table 12.1 and figures 12.1 and 12.2).

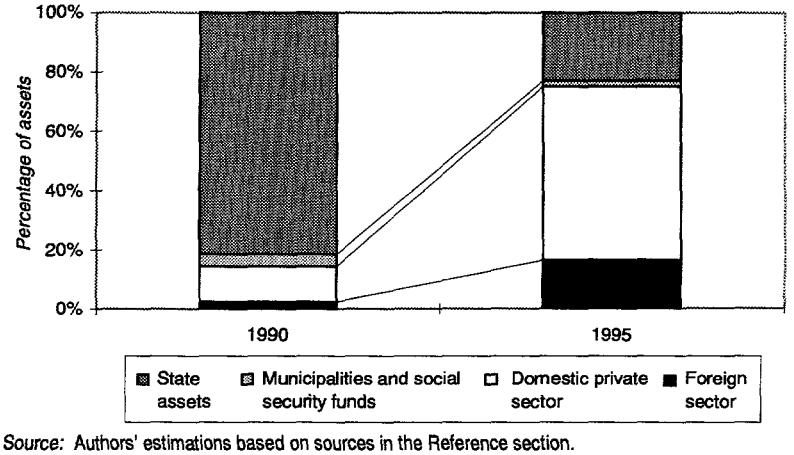
Figure 12.1 ***Gross Domestic Assets in 1990 and 1995***



Source: Authors' estimations based on sources in the Reference section.

Figure 12.2 shows ownership changes in productive assets over the period. The state's participation fell from 82 to 26 percent, while domestic private ownership grew from 11 to 51 percent. Meanwhile, foreign participation rose from 2 to 20 percent of productive assets. By the end of 1995 Hungary's productive sector had the characteristics of a market economy, with only 15 percent of productive assets left to be privatized. Transfer of productive assets to social funds and municipalities remained minor at end-1995.

Figure 12.2 ***Productive Assets in 1990 and 1995***



Source: Authors' estimations based on sources in the Reference section.

In 1990 Hungary was predominantly a state economy, with state and quasi-state assets representing 64 percent of domestic wealth. Even before privatization started in the late 1980s, the private sector owned all consumer durables, about 80 percent of the housing stock, perhaps 7 percent of land, and 13 percent of productive assets (for example, shops and industrial assets). Note that if collective farms and cooperatives in industry, agriculture, and retail were considered private (they are treated here as public), 40 percent of gross domestic assets would be recorded as in private hands. State and quasi-state ownership fell to 48 percent by the end of 1995: 47 percent of all assets were in private domestic hands and foreigners owned another 5 percent. Privatization had a major effect in attracting foreign capital into Hungary. While only $5 billion was channeled to the country through privatization, an additional $8 billion was invested in the real and financial sectors. Greenfield investment in the real sector was approximately $4 billion, and follow-up investments reached almost $2 billion.

PRIVATIZATION AND PUBLIC FINANCE

Privatization can be looked at in many ways; given the subject of this book, the focus will be on the impact of privatization on Hungarian public finance. We consider five important ways in which privatization has affected the fisc. First, privatization forced the government to become less dependent on revenues from public enterprises and to tax a broader base, including personal and corporate income, value-added, and wages. Second, privatization, after an initial increase in outlays, reduced government spending to cover enterprise losses and the associated bad debts in commercial banks, arising primarily from their loans to loss-making corporations. Third, the sale of enterprises generated revenues for government that produced a sharp debate as to how these funds should be used. Most of the assets sold initially belonged to the central government, but certain municipalities, primarily Budapest, also sold valuable assets. Fourth, privatization of land and dwellings has enabled the government to reduce subsidies to agriculture and households. Municipalities in particular benefited from the privatization of dwellings, because in most cases operating and maintenance expenses on the houses they owned exceeded rental incomes. Fifth, some assets were not privatized, but divested by the central government to the municipalities and social funds, which have been able to use dividends and receipts from sales of these assets to cover expenditures that otherwise would have required transfers from the central government.

Privatization and Taxation

Before the changes made in the late 1980s, Hungary's public finances were highly dependent on the "profits" made by public enterprises (chapter 17). In 1986 taxes on enterprise profits amounted to 46 percent of general government revenues; they accounted for only 3.5 percent in 1995. The personal income tax did not exist in 1986, but by 1995 contributed 18 percent of tax and tax-like revenues of the general government (IMF 1996b). Once the economy had switched to market pricing for enterprise inputs and outputs, a tax system so highly dependent on corporate profit taxes was no longer feasible. As of 1987, with the aim of giving more room to market-based activity and private entrepreneurship, Hungary began to adopt a Western model of financing government expenditures that emphasized taxing personal incomes, wages, and expenditures. While the reformation of the tax system had already begun, privatization of enterprises furthered the shift in the pattern of taxation away from extreme dependency on corporate "surpluses." Also, profit-tax preferences were given for supporting economic development, such as five-year tax holidays for foreign greenfield investments.

Privatization and Enterprise Losses

From a profit perspective, public enterprises can be divided into three classes: those making surpluses, those covering operating but not financial costs, and those not even covering operating costs. In Hungary most of the enterprises falling into the first class have been privatized. During the several rounds of debt reconciliation and bank restructuring, considerable debt relief was granted to the second class of firms and they, too, have now primarily been privatized. Except for a few very large corporations, enterprises falling initially into the third category, namely those not covering operating costs, have been declared bankrupt and liquidated. Thus far, 7,000 enterprises have been liquidated. As a percent of GDP the collective losses of loss-making state enterprises fell from 14.2 percent of GDP in 1992 to 2.3 percent in 1995 (CSO 1997).

Enterprise profits and losses were distorted by state subsidies. As part of private-sector development, the Hungarian government significantly reduced and restructured subsidies, which declined by more than 60 percent in real terms, from 13.3 to 5.6 percent of GDP during 1990-95 (World Bank 1996a). By 1995 consumer subsidizes were limited to transport and pharmaceuticals. Housing subsidies were reduced and limited to cheap loans inherited from prior regimes. Producer subsidies, except for direct subsidies to railways, were cut extensively. In 1996-97, as

a consequence of privatization contracts, energy prices were gradually increased and subsidies reduced.

In 1995 the profits of the enterprises in which the government still had a stake amounted to 4.4 percent of GDP, the losses to 2.3 percent; these profits declined further in 1996. Loss-making industries in Hungary are concentrated in steel, coal mining, and railways (railways being by far the largest loss maker). In addition to covering the losses, the government has spent substantial sums attempting to modernize operations in these sectors and make firms profitable and privatizable. About 12 percent of privatization revenues (equivalent to $1 billion) were spent for enterprise reorganization by end-1995. In 1995 and 1996 the government invested more than $100 million in the steel industry, which the State Audit Office has called an inefficient and irregular use of state money. However, as privatization or closure of loss-making enterprises has gone quite far in Hungary, this problem of aggregate public enterprise losses is smaller than in most other former socialist economies. By eliminating losses that must be covered and investments that have to be financed, divestiture of loss-making companies, through liquidation or sale, has created savings for the fisc.

In light of impressive private-sector development, and significant FDI inflows, privatization and enterprise restructuring have had a major impact on corporate finance. The largest private enterprises (MATAV telecom, for example) have implemented global financial strategies using modern cash-flow management. This enabled them to finance new investments without reporting profits or equity increases, yet achieve deep technical and operational restructuring and capacity increases. These measures reduced profitability of (and taxes from) the Hungarian enterprise sector. These equity investments, mainly financed through direct foreign borrowing, are in substance FDI, though currently not accounted in Hungary's aggregate FDI statistics.

Closely related to the corporate losses have been the bad commercial bank debts that have plagued all the transition economies. Both before and in the first years of reform, governments directed commercial banks to lend to loss-making corporations. In Hungary, this process stopped for the most part in 1993, but the bad debts remained on bank books; the government has had to assume responsibility for them by recapitalizing the banks and accepting lower privatization prices for banks. Hungarian government recapitalization of the banks and debt forgiveness prior to privatization has amounted to $3 billion. The bad debts were really another aspect of the corporate losses. Privatization and liquidation of en-

terprises, coupled with bank privatization, has much reduced this problem.

Though delays in industrial and infrastructure privatization were inevitable, they have been costly to the fisc. Slow industrial privatization permitted managers to engage in asset stripping; delay in privatizing banks, coupled with periodic recapitalization, sent a message to the managers of indebted enterprises and banks that failure to pay loans could be advantageous for both borrower and lender. Failure to force adjustment in operations and financing new investments for loss-making public enterprises has certainly cost substantial fiscal resources. The government now has taken steps to limit the ability of the privatization agency to reinvest in loss-making enterprises still in public hands by demanding that almost all revenues from privatization be transferred to the central government budget, which then decides on support for public enterprises.

Receipts from Privatization

Though it was not initially recognized, Hungarian state enterprises could be categorized in two different classes. There were about 40 large companies in strategic sectors, such as energy, telecommunications, banking, and a few large industrial firms that were of interest to foreign investors. The second class consisted of about 1,800 medium companies of little interest to investors outside Hungary. Privatization could have been faster, smoother, and more transparent, if different strategies had been adopted for the two classes of assets. However, for both classes of firms, Hungary used a case-by-case, cash-sale approach. During 1990-95, 80 percent of the foreign exchange raised from the sale of enterprises came from the sale of a small number of strategic enterprises. Out of the roughly 1,800 medium firms originally held by the state privatization agency, 915 were fully divested, through sale or liquidation, and 769 were partially sold by 1996.

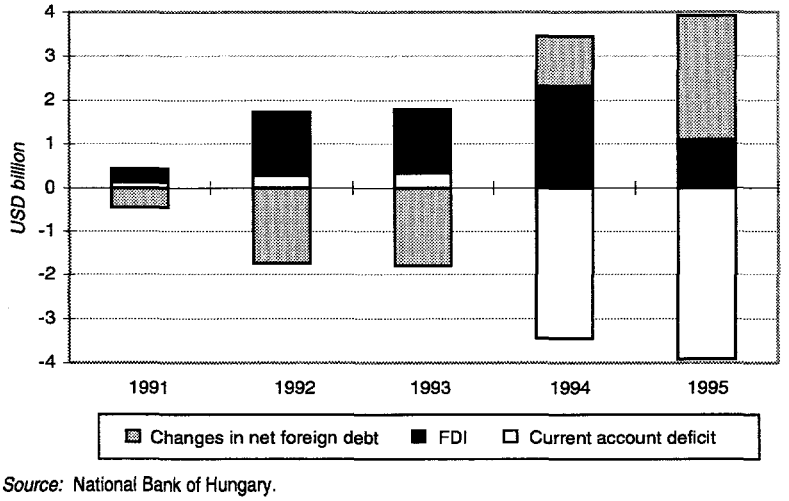
There was a sharp debate (Bokros 1996) on what to do with the funds received from privatization, particularly the $3 billion received from the sale of the energy and telecommunications companies at the end of 1995. The issue was whether to use the funds to finance government expenditures or to repay external debt. In practice, roughly a third was used to cover transaction costs and prepare enterprises for privatization, another third to finance general government expenditures, and the last third to amortize foreign debt. Following the debate in 1995, the government accepted that using privatization revenues to finance current expenditures would reduce national wealth and that sustainable financing

of expenditures should rely on regularly recurring revenues rather than one-time receipts. From 1995 on, the Hungarian government treated privatization revenues as a below-the-line financing item.

The net foreign debt of the economy in 1995 was very close in dollar terms to what it had been in 1990, but the underlying structure was quite different. As a consequence of private-sector development and foreign exchange liberalization, the share of direct corporate borrowing increased, rising from zero in 1990 to $5.7 billion by end-1995. Over time, Hungary's foreign debt is being privatized. In parallel, this has enabled the government to rationalize its foreign-debt management (chapter 10). After reaching a peak of $15.2 billion in 1994, the government's net external debt declined to $7.9 billion in 1996. These achievements led to a revaluation of Hungary's credit-risk position. Lower debts levels were clearly easier to service. As a result, the spreads over LIBOR Hungary had to pay declined from more than 3 percent at the beginning of 1995 to around 0.5 percent in early 1997. Interest payments declined both because of the reduction in net debt and the decline in the spread.

As can be seen from figure 12.3, the inflow of the FDI, in large part privatization revenues, significantly eased Hungary's external financing in a period of large current-account deficits. The massive inflow of FDI not only enabled Hungary to finance its current account deficit, but also to reduce external indebtedness. From the point of view of ownership,

Figure 12.3 ***Current Account Deficit and Its Financing***



Source: National Bank of Hungary.

the structure of net debt changed significantly and approximately half of net foreign debt was owed by the private sector in 1995. The inflow of capital to Hungary, both net borrowing and equity flows, are now driven by the private sector.

Divestiture of Land, Agricultural Assets, and Dwellings

Land and farm privatization provided negligible revenues for the central budget, as the assets were mainly divested through a voucher process. Privatization, however, coincided with, and partially caused, notable changes in agricultural taxation and subsidies. Implicit subsidies were eliminated in parallel with a drop of explicit subsidies from about 2 to 3 to 1 percent of GDP. Subsidization has shifted from covering farm losses to a more transparent system; the major farm subsidies are now for exports, investments, reorganization, and short-term interest rates. As in other countries, agriculture is likely to continue to be subsidized, and further savings are unlikely.

Private farmers in Hungary, as in all other countries, have quickly learned to take advantage of the fiscal authorities. According to recent estimates, a significant 10 to 15 percent of agricultural production has moved to the shadow economy and is not reflected in national statistics or the tax base. The present combination of land ownership and taxation creates incentives for serious underreporting of output and misreporting of land use (for example, members of corporate farms can misrepresent themselves as individual farmers for tax purposes). The wide-scale use of land leases, which are subject to personal income tax[3] and play an important role in land consolidation, are underreported and many exist only in the form of "pocket contracts." Privatization of agriculture will probably not significantly benefit the fisc.

Before 1990, Hungarian housing policy had two important objectives: maintaining public ownership of social housing for the poor, and providing those with higher incomes subsidies to build private housing. In principal, social housing was to be allocated in accordance with income, with subsidized rentals only for the poor. In practice public housing and housing subsidies in Hungary were not limited to low-income families. Political ties and employment status often outweighed income in allocating state-owned dwellings. Families were not removed from the highly subsidized rental units when their income improved, nor were the rental fees increased. By the 1980s, most of the tenants living in public dwellings were receiving sizable benefits, even though many were not entitled to social housing (Farkas, Vajda, and Vita 1995).

Building new dwellings for public rental gradually slowed after the 1960s, and more emphasis was put on subsidizing private-housing development. Housing loans with low interest rates became "citizens' rights," often supplemented by cash donations for those employed by state enterprises, with additional cash subsidies from the state allocated according to number of children. Thus, there were incentives for high-income families to leave public rentals and move into their own subsidized dwellings. Over time at least a quarter of the public rentals were vacated; most of these dwellings were subsequently rented out to families entitled to social housing, bringing the use of social housing more in line with policy.

Hungary has no consistent housing policy. It has over-privatized its housing stock and left the issue of social housing unresolved. Municipalities have neither incentives nor funds to invest in new social housing. Central budget expenditures on housing are 60 percent less than they were before 1990. The central government has eliminated subsidies for new housing construction through low-interest loans, though a new scheme of small subsidies has recently been enacted. A significant part of housing expenditures in the central budget covers defaulted housing loans extended in previous decades and is used to reimburse banks for the subsidies implicit in pre-existing low-interest housing loans. Loans for new housing construction have practically disappeared; only 15 percent of expenditure on new housing is financed by loans, which creates problems for potential builders. Even more difficult is the problem of finding financing to refurbish the quickly deteriorating stock of multi-family dwellings.

Assets Transferred to the Social Funds and Municipalities

As part of the political transition in the 1990s the newly established municipal governments and social security funds obtained political and, to a degree, economic independence from the central government. The fifth way in which asset divestiture influenced public finance was through the transfer of assets from the central government to these entities and the use made of the proceeds.

The two self-governing social security funds were established in 1992 with the intention to transfer to them the most profitable and liquid assets to ensure them some independence from the central government and enable them to cover any deficit arising within a budgetary year from proceeds of their own assets. A stock of assets worth HUF 300 billion at 1992 prices, representing approximately 20 percent of all the assets held

by the privatization agency, was to be transferred to the funds. However, the political will to carry out the transfer weakened with time, partly because it was recognized that transfer to the social funds of the best assets would significantly influence the outcome of the privatization process and substantially reduce the privatization revenues of the fisc. In practice, the assets transferred to the two funds had value of only HUF 65 billion at transfer prices in 1995.

An unclear approach to social security fund ownership and management of assets in a pay-as-you-go system affects asset management. Under the current rules, any increment above the original transfer price is to be used to finance operations. There is no incentive to pursue asset management to increase wealth. In addition, in 1996 and 1997 the funds are obliged by law to sell parts of their assets to cover operating deficits. Asset ownership by the social security funds is likely to be short lived in Hungary.

Asset transfers to local governments started in 1990 in an amount of HUF 150 billion at 1990 current prices (State Asset Management Agency 1997). The transfer was meant to ensure continuity in owners and the permanent operation of assets formerly owned by local councils. During 1991-95, assets of HUF 80 billion were transferred, mostly in 1995. The transfers were meant to compensate municipalities for their initial ownership stakes in former council companies and other state-owned enterprises using municipal land, such as gas and electricity companies. The value of municipal ownership in these assets has been a matter of dispute between municipalities and the State Property Agency (SPA). Laws regulating the transfers were unclear, leading to lengthy delays and, in some cases, litigation. There is some evidence that municipalities are selling their holdings to repay their debts and finance services they are by law obliged to provide. In general, municipalities have been more capable of supplying traditional municipal services in education, health, and social assistance than providing non-basic services, such as maintaining parks, local roads, and so on. Some municipalities have privatized their non-basic services through outsourcing activities—such as gardening, local transport, and solid waste management—to the private sector.

PERFECTING ASSET MARKETS

Privatization's key objective was more efficient resource use. This requires good markets; improvements need to be made in the capital, land, housing, and labor markets through institution building and changes in

legal structure. This adjustment takes time; changes in government practice and institutional behavior do not happen from one day to the next. Hence, privatization as a process is still incomplete in Hungary.

Privatization is not, as said earlier, a single state; all governments reserve for themselves certain ownership privileges. But when they interfere in markets too much, this reduces the efficiency with which capital is used. In every country in which popularistic methods for privatization have been used, second-generation problems have arisen in asset markets. In Hungary the most serious problems lie in the real asset markets for land and dwellings, but there are also important problems in pricing monopoly services in infrastructure, and lesser problems in the market for human capital. These are considered in turn.

Hungary's agricultural sector had been the most efficient among the socialist economies. It consisted primarily of large collective and state farms. A system of voucher privatization was used to distribute land to active and retired members of the collectives and former owners. Hungary's agricultural reform has resulted in a new ownership structure, which in turn will require further evolution to produce a modern system of private agriculture.[4] According to estimates, more than half of the land is now efficiently cultivated. About 7,000 collectives and 50,000 individual farms produce 70 percent of agricultural output. However, there are 120,000 non-viable small and more than 1-million micro farms that need restructuring. Though the larger farms, both corporate and individual, reported profits in 1995, 43 percent of farms, mainly small farms with under 20 employees, reported losses and are struggling to survive (Csáki 1997; Varga, Tóth, and Palberg 1996; Harcsa 1995; Varga and Tóth 1996).

Most owners do not cultivate their holdings, but rent their land to collectives. The situation is unstable; leases are only for a year or two. Due to market rigidities, and legal and institutional impediments, there is no smooth mechanism for adjusting farm size. Further land consolidation is inevitable, but markets for land and agricultural finance do not work efficiently. Legal restrictions exist on land sales. Given uncertainty of tenure, farmers are reluctant to make major investments. Nor can they use the rented land as collateral. Further actions needed to complete the land reform include modernizing the national cadastre and speeding up the process of titling newly privatized land; amending land ownership and land-market regulations to allow corporate and foreign ownership of land; amending the legal framework for cooperatives to ensure further restructuring and distribution of cooperative land; and introducing meas-

ures to facilitate a rapid consolidation of land ownership and changes in farm size. The poor land market, the shortage of finance, and ownership instability resulting from the method of privatization, are pressing problems in Hungarian agriculture.

Large apartment blocks provide dwellings for tens of thousands of Hungarian households. These were built either before the war or during the communist era. These blocks have received little maintenance and are now in serious disrepair. In the privatization process, ownership of most flats was transferred to tenants. One of the consequences of the giveaway approach to privatization is that the new owners do not have funds to renew rundown housing stock. Under Hungarian law, unanimous agreement of the owners is needed to make major repairs on communal building systems. As this is seldom feasible, buildings continue to deteriorate. A new law is needed reducing the required voting majority, but even majority rule may not lead to needed repairs. Hungary's population is not expanding, and repairing existing multifamily housing is far more important than building single-family units—yet most investment goes to new housing because of the ownership, financial, and organizational problems associated with repairs.

The amount buyers pay for productive assets depends in part on the conditions imposed. If they must assume environmental liabilities, the price will be lower than if these liabilities are assumed by government. The degree to which government covers pre-existing bad loans has had a significant impact on the prices buyers are willing to pay for banks. There are several examples of problems arising from *privatization of infrastructure with monopoly.* In the energy area, foreign buyers were told that tariffs would be set to yield 8 percent after taxes on capital, a lower rate of return than in many OECD countries. As a result, generation capacity sold for only 50 percent of the going price for comparable facilities in Western Europe. In late 1996 when it appeared the new tariff might not yield even that rate of return, one foreign buyer threatened to sue for the repayment of its investment. Politicians have not clearly grasped the relationship between the asset prices and the conditions set by government and fears of arbitrary intervention in economic decision-making.

Human capital, by definition, is owned by the household sector but under socialism the government's educational policy determined the amount and type of human capital, the individuals to be trained, and, through its labor policies, the use made of human capital and its reimbursement. A modern market economy with its emphasis on services,

rather than manufacturing, requires a different mix of skills than socialism. The impact of transformation on some elements of the labor market has been devastating. Unemployment rates have risen sharply and wages have fallen in real terms for the unskilled. But even among the skilled there have been dramatic changes in wages, say between doctors who are in excess supply and those with business skills, who are in short supply.

Labor markets are distorted both by stock imbalances and the flow of new entrants. The production of human capital through education and medical treatment remains largely in public hands and is not very responsive to market pressures. The costs of education and medical services are still determined by government policy; and at least 25 percent of the employed still work for government. However, market forces are much more important: 75 percent of people now work in the private sector, where demand and supply have a substantial impact on wages. Changes in employment rates and relative wages do send signals as to the skills needed by new entrants into the labor market. Education in Hungary is adjusting to the new situation; enrollment of full-time students in higher education has increased from 12 percent of the age cohort in 1991 to 17 percent in 1996. The composition of students by faculty has been less quick to adjust to the market. Until there is greater response, either through the pricing of training or better quantitative planning, these distortions will persist (chapter 9).

CONCLUSION

At the beginning of the 1990s, the government of Hungary was effectively the owner of nearly all industry, banking and infrastructure, most agricultural land, and almost 20 percent of the country's dwellings. The first non-socialist government embarked on an ambitious program of divestiture, selling industrial, banking, and infrastructure assets for cash, distributing land widely, and selling dwellings to tenants at very subsidized prices. In addition, the resources of former local councils, plus some additional compensation, were transferred to the new municipalities.

Divestiture of state assets in Hungary is now nearing completion. Dwellings and all but a small fraction of agricultural assets now held by state farms have been divested to the private sector. Out of the initial stock of HUF 1,700 billion at current prices in industrial and infrastructure assets held by the state privatization agency in 1990, HUF 800 billion remained to be sold or liquidated by end of 1995 in current prices.

By the end of 1998 the central government hopes to have disposed of most of its holdings. Of the marketable assets transferred to the municipalities and social funds, perhaps a third has already been sold to the private sector. The municipalities are likely to dispose of the rest of the assets transferred to them in the next few years.

What remains to be divested are a few large industrial enterprises and the state's holding of minority positions in a fairly large number of medium enterprises. In infrastructure, the government still holds valuable controlling positions in a number of large companies, and with substantial minority positions in the companies that have been partially privatized. Particularly in infrastructure, the government wishes to keep a blocking minority (25 percent of equity plus 1 vote) even in firms to be privatized.

Hungary opted for cash privatization for industrial and infrastructure assets. In 1989 many observers were concerned by two aspects of this method. First, it was argued that this approach would take too much time. A second concern was that the amount of private domestic savings appeared to be minuscule compared to the estimated value of salable assets. In hindsight, both concerns seem exaggerated.

In comparison with other transition economies, the Hungarian approach—cash privatization—was not slow, especially if attention focuses on the privatization of strategic enterprises, such as energy, telecommunication, banking, and insurance. Concern over the size of domestic savings gradually became irrelevant, as foreign investors purchased the strategic companies, while the medium and small companies were divested through various soft payment forms. One clear advantage of Hungary's approach was that market-driven privatization resulted in stable ownership with clear and strong governance, while voucher privatization led to unclear, missing, or weak corporate governance (Gray 1996).

The Hungarian privatization process was not faultless. Several mistakes were made, some of which could have been avoided. In the large privatizations, income was not maximized, due to a failure to generate enough competition among foreign bidders. Sometimes it was managerial short-sightedness, sometimes bad timing or artificial deadlines that prevented real competition. Underestimation of the importance of competition was noticeable at all levels of the Hungarian privatization process. In quite a few cases, aims other than revenue maximization were prioritized, including employment policies, job creation, or environmental investments, as politicians, ministerial officers, local policymakers, and company managers tried to pick the best buyer through negotia-

tions. Divergent efforts canceled each other and all too often none of the policy aims was met.

In privatization, as in other areas of reform, Hungary started before—and has gone further—than the other transitional European economies. Yet the growth performance of the economy as measured by the GDP statistics, a decline of 15 percent during 1990-92 and growth of only 4.4 percent from 1993 to 1995, has been disappointing and below the achievement of many other Central European economies. Frankly, there is no satisfactory explanation for Hungary's poor growth performance, though the macro instability until 1995 certainly contributed.

Even in a country as advanced in privatization as Hungary, there is a substantial unfinished agenda. First the public sector (central government, local governments, and the social security system) still owns assets that should be privatized. Second, not all forms of privatization produce efficient asset management. Many of the more populist methods of privatization have put asset ownership into "weak hands," creating problems that will have to be rectified. Third, to make a market economy function well there must be trading in assets. In Hungary, as in all the former socialist economies, the market for assets, and the enabling laws and institutions, are as yet poorly developed.

APPENDIX: PRIVATIZATION BY ECONOMIC SECTOR

Within chapter 12, physical assets were divided into five classes (see table 12.1): industry and infrastructure, agriculture, dwellings, municipal assets, and other infrastructure assets (which are primarily the state railways and post office). Most assets in the first three classes have already been privatized; in the fourth, only a fraction have been privatized, and assets in the fifth class have not been privatized, nor is that intended at this time. Quite different methods were used to privatize the different classes, and this appendix spells out the initial conditions in each class, describes the approach to privatization, analyzes certain problems, and evaluates the results.

Industrial Assets

In socialist Hungary, 2,400 large and medium state-owned enterprises produced the preponderance of national output. In 1989 there were approximately 50,000 small private ventures and 320,000 individual entrepreneurs living in symbiosis with the state sector (CSO 1993). At the

turn of 1989-90 several hundred state-owned enterprises were given to the municipalities or branch ministries, or found themselves in a juridical vacuum with no formal owner. In March 1990, when the State Property Agency took control, 1,855 state-owned enterprises were transferred to its portfolio. Some 1,700 were industrial and service companies, while the remainder were in the agricultural and forest sectors. As a rough approximation, the book value of the SPA's initial industrial and service portfolio can be estimated at HUF 1,730 billion in 1990 prices. By 1995 the agency disposed of almost 80 percent of its assets through divestiture, transfers to municipalities and social funds, liquidation, and write-offs. As of end-1995, of the remaining assets, approximately HUF 300 billion in 1995 prices are considered long-term state property, while another HUF 800 billion consists of firms still to be divested. These figures leave little doubt that Hungarian privatization is close to complete.

Other assets, not part of the SPA portfolio, remain in government hands; these include the national railway (worth HUF 460 billion in 1995 prices) and postal service companies (HUF 70 billion). Public transport, both inter-city and local bus services, remained exempted from privatization. The state development bank owns about 150 small and medium industrial firms. Finally, the City of Budapest is the owner of valuable utility and public transport companies, the sale of which has started only in 1995.

There are several important characteristics of the Hungarian approach to industrial privatization:

- Hungary, since 1989, has followed primarily a cash-scale approach in divesting industrial assets. Sales were carried out in a competitive manner (tenders), with companies sold to the highest bidder. Voucher privatization or alternative systems of free distribution were not used to privatize industrial and infrastructure assets (Mihályi 1992).

- New owners were required to acquire at least 51 percent of equity, to obtain majority voting rights on boards, and to operate companies as going concerns. This is a fundamental difference compared to the East German or Polish models. In those cases ownership change was tantamount to liquidation of the previous production entity, with the purchased assets simply transferred into existing West German companies or, in Poland, used to support new private ventures.

- External investors were sought to purchase Hungarian enterprises. Though management and employees were entitled to buy 5 to 10 percent of equity at preferential prices, there were no more than 100 cases in which 51 percent or more of equity was sold to insiders.

- The Hungarian privatization process was centralized in the legal, administrative, fiscal, and geographic senses. Transactions were all done in Budapest, in the premises of the SPA. The same rules were applied to all transactions, records were kept in the same way, and revenues were directly channeled to the Treasury. In hindsight, this appears to be a very wise decision, as centralization helped strengthen procedural discipline and minimize corruption.[5]

- In most transition economies corporatization was simply decreed by the government. In Hungary corporatization was handled as a by-product of divestiture. In the corporatization process a company's registered equity was divided between the new owner (in exchange for cash) and the state (whose in-kind contribution was honored by a given amount of shares). As corporatization-*cum*-privatization took more time than envisaged, policymakers directed that the entire corporatization process be completed by mid-1993.

Now consider privatization by industrial subsector:

- The first privatized subsector was insurance (1990-92). This happened before the birth of the State Privatization Agency, and transactions were negotiated by the Ministry of Finance.
- In the banking sector, the first major deal was struck in 1994. Interestingly, this transaction was largely controlled by the bank's management, a pattern that has been successfully emulated in later bank deals. During 1995-97 five major commercial banks were sold, all to foreign financial institutions, and two deals are pending.
- MATAV, the monopolist provider of telecommunications services, was sold in two stages to a German-American consortium. One third of the shares remains in government hands.
- MALÉV, the national airline, was divested in part to the Italian national airlines. Unfortunately, the marriage of the two state-

owned firms caused disappointment for both sides. Divorce negotiations are under way.

- The year 1995 saw a breakthrough in the privatization of the electricity and gas industries. Before sale the former state monopolies were broken up by region and by stage in the production process. With both industries, the government's strategy was to create a competitive environment in which Hungarian, German, French, and United Kingdom investors would mutually restrain each other's monopolist aspirations. In both industries, privatization has led to a fairly diversified ownership structure, which has enabled lively trading of company shares on the over-the-counter markets. While privatization was completed in the gas industry, much remains to be done in the electricity industry. There are still three major coal-fired power stations in state hands. A decision is pending concerning the future of the Paks nuclear power station, and ownership of the grid and dispatching center.
- MOL, the nation's integrated oil company, was divested to foreign institutional investors in two major tranches. Though originally, the government preferred to bring a strategic partner into the company, after long hesitation, it bowed to the wishes of management to remain independent.
- Among the major deals planned for 1995-96, only the sale of the Hungarian broadcasting company failed to materialize. Although there was a successful tender, the government was not willing to accept the conditions set by the potential buyer. In mid-1997, the privatization of Antenna Hungaria was taken off the privatization agenda; this company has not been privatized as of mid-1998.

Now consider the non-strategic companies. In the process of corporatization some of the larger firms were broken up into several medium companies with clear production profiles and cleaned-up balance sheets. Including subsidiaries, the number of state-owned companies exceeded 5,000. No precise data are available, because state authorities were not responsible for the subsidiaries; their privatization mandate was limited to the mother companies only. Some 650 companies disappeared through bankruptcy and liquidation procedures.

From the SPA's original portfolio, 915 large or medium firms were fully divested and an additional 769 partially sold (Kovács and Tömpe 1996). To facilitate the sale, primarily to domestic investors, of medium

and small companies, the Hungarian authorities used a variety of techniques: soft loans, sale for compensation coupons, management contracts, leasing, and so on. There were dozens of cases in which competition was deliberately limited to exclude foreigners (with deeper pockets) or to give preference to Hungarian investors. At the time of this writing, residual shares in these companies are still in public hands awaiting sale.

Small privatization, pertaining to retail trade and consumer services, was carried out under separate legislation,[6] but its rules and procedures fell in line with the general Hungarian practice (going-concern basis, external investors, auctioning, centralized implementation, soft payment terms for domestic investors). The original concept of small privatization was fairly ambitious (Earle 1994). In 1990 it was estimated that 54,000 shops and service units could be divested in one to two years. However, as the draft law slowly became an approved act, lobbying groups managed to reduce the number to less than 11,000, as food chains, hotel chains, pharmacies, petrol stations, travel agencies, and so on, were exempted. In the end, the small privatization program involved predominantly food shops (4,000), and restaurants and cafes (3,000). The bulk of the auctions were carried out in three years (1991: 4,066; 1992: 3,571; 1993: 1,428), though a few shops and restaurants remained unsold in mid-1997.

A word of clarification is needed about spontaneous privatization. This term was widely used both inside and outside Hungary to characterize managerial self-dealing and asset stripping before creation of the State Privatization Agency. While there is no intention to justify illegal and/or unethical transactions during the 1988-90 period, the volume of assets divested in this way was minuscule in comparison to the state-initiated deals.[7]

Throughout the 1988-97 period incumbent management was often involved in privatization deals. In the large, strategic firms three different management strategies can be discerned. In some firms, management energies were concentrated on postponing privatization, while in others their main goal was to control the process and to pick a foreign owner of their own taste. More recently, the managers of some large companies have grasped the attractiveness of dispersed ownership, where no owner has more than 10 to 15 percent of equity, so that entrenched managers can retain full control. In small and medium firms, the incumbent management had a fourth strategic option—to become the owner of the company or a part of the company.

In those companies where an external strategic owner, foreign or domestic, was able to acquire full management control or a majority stake, significant restructuring took place within a year. The performance of companies privatized through dispersed ownership is mixed. In some cases, there is clearly no leadership; thus restructuring has been postponed. But there are good examples, as well. There are several companies listed on the Budapest stock exchange (for example, MOL, OTP, Richter, Pannonplast) where the incumbent management performs in a convincing manner and is able to deliver enough restructuring to please shareholders.[8] On the other hand, where privatization was delayed, firms have been drifting, sometimes even requiring state help.

Agricultural Assets

At the end of 1980s, the organizational structure of Hungarian agriculture comprised a mix of state farms, quasi-state[9] cooperatives (living in symbiosis with micro-sized household farms managed by cooperative members), and private farms. A large number of small manufacturing and service units supplemented the farming activities of the cooperatives.[10] In 1990, out of the country's 6.4-million hectares of agricultural land, 27 percent was state-owned, 42 percent was owned by cooperatives, 24 percent was registered as private property of cooperative members, and about 7 percent was owned by other private individuals. The 130 state farms cultivated about 15 percent of the land and the 1,400 cooperatives about 70 percent. In parallel with their work on the cooperatives, more than 1 million co-op members cultivated about 10 percent of the agricultural land in small plots averaging 0.5 hectare.

The ownership transition in Hungarian agriculture aimed at creating a flexible private agriculture by privatizing state farms, de-collectivizing and reorganizing agricultural cooperatives, and compensating people for their expropriated properties or mistreatment by the previous regime. Creation of an efficient production structure was not a direct privatization goal. Instead, it was assumed that this would happen automatically through the action of private owners within the new legal framework. However, the manner in which land was privatized produced a fragmented pattern of land ownership that Hungary had never experienced before, and which could well prove less productive.

Privatization of land and non-land assets[11]was carried out on five tracks. One third of productive land (about 2.7-million hectares) was set aside for compensation purposes and auctioned for compensation vouchers, though with some restrictions on resale. About 7 percent of the land

came from state farms and 26 percent had been owned collectively by cooperatives. A second third of the land had always remained registered as the private property of co-op members; this became marketable private property, and members and employees of cooperatives who had not been land owners received 1 to 1.5 hectares. The remaining collective land was divested through closed tenders for cooperative members, or auctioned openly. Non-agricultural units were spun off and divested during reorganization[12] or liquidation of the farms. Shares and cooperative quotas[13] were distributed among members, employees, pensioners of cooperatives, and among former co-op members and their heirs (table 12.3).

By the end of 1996, about 80 percent of land had become the private property of about 2.4-million citizens. Cooperative ownership entirely disappeared. Half of the state farms had become private; a quarter were liquidated, and the remaining 28 farms will be partially privatized. Only 20 percent of land remained state property and was cultivated by two-dozen state farms, mainly intended to be retained in state majority control (minimum 50 percent +1 vote) due to their special status (national heritage, breeding, and genetic reserve farms). About 10 percent of agricultural land remained to be privatized at the end of 1996, but this portion was to be leased out for a minimum of 10 years and then privatized.

Table 12.3 ***Selected Agricultural Figures***

Indicator	*Years*	*Commercialize companies*	*Cooperatives and cooperative members*	*Private producers and farmers*
Number of entities and private farmers[a]	1990	130[d]	1,400	800,000
	1995	3,881	2,117	1,200,000
Share in agricultural GDP (percent)[a]	1990	15.0[c]	47.7[c]	37,3
	1995	24.0	23.0	53.0
Ownership of productive land (percent)[b]	1990	27.0[e]	66.0	7.0
	1995	20.0[e]	33.0	48.0
Use of productive land (percent)	1990	15.0[d]	70.0	15.0
	1995	28.3	26.0	45.7
Land use hectare per units[c]	1990	6,000[d]	2,000	0.5
	1995	584	984	3.0

a. Central Statistical Office.
b. Ministry of Agriculture.
c. Estimates.
d. State farms.
e. State ownership.
Source: World Bank (1996b).

For the purpose of privatization, the non-land assets of state farms were decomposed into functionally viable units. Food industry units, other manufacturing, research and development, service, and maintenance units were spun off, with their liabilities, and sold individually. Proceeds were used mostly for debt repayment or covering losses of the core farms. Of $1.5 billion in non-land assets, actual members and cooperative employees received quotas for 41 percent of the assets, pensioners received about 39 percent, other citizens received about 20 percent. These quotas were used either to pay for purchased assets when a certain group of members decided to exit collectively from the cooperative and create a new legal entity, or kept as non-voting securities. Pensioners and other holders could keep quotas as financial investments or sell them.

In spite of many land owners, much of the land is still cultivated in large parcels, though the size of farms cultivated by large cooperatives and the remaining state farms significantly decreased from 4,000-6,000 hectares to 1,500-2,000 hectares, respectively. More than half of the land is cultivated in economically viable units under the management of about 6,000 corporate farms. There are about 1.2-million individual farms, of which about 66,000[14] are of viable size. The initial fear that reform would lead to drastic fragmentation of large farms and destroy agricultural productivity has not materialized. There are about 120,000 small farmers cultivating 2 to 10 hectares, the rest are small part-time farmers cultivating 1-hectare plots or smaller, for whom agriculture is little more than a supplement to other income sources. Many of the 2- to 10-hectare farms are also not viable. These farms, which altogether cultivate less than 20 percent of the land, are the ones most in need of restructuring. And there is a risk that, given the extreme distribution of land ownership, some of today's large units may be broken into less-productive small farms.

The changes in Hungarian agriculture coincided with adverse economic effects caused by the collapse of the CMEA market and depression in the domestic and European agricultural markets. During 1989-93 there was a 35-percent decline in agricultural production, mainly caused by market forces; production and labor productivity started to grow significantly in 1994. Agricultural exports, which fell by more than 20 percent in the early 1990s, had by 1995 completely recovered and even surpassed the 1990 gross and net export levels in spite of a 50-percent decrease in agricultural subsidies.

Decomposition, restructuring, and recreation of cooperatives has introduced a more rational and flexible farm structure. Non-farming units

often maintain business relations with core cooperatives, using their professional services in management, financing, machinery leasing, procurement, and marketing. Newly independent private farms often contract with corporate farms for these services. These achievements signal efficiency improvement in the new farm governance.

While Hungarian agriculture reform is on track, farms face a deepening liquidity and modernization crisis. There is a high demand for finance and there is sufficient liquidity in the Hungarian banking sector, but most farmers lack creditworthiness, track records, and collateral. Farmers are unable to raise equity capital or apply for needed credit. A solution to the financial problem of agriculture is pressing.

Hungary's land market is still in its infancy, though the leasing and rental markets for land are very active and quickly developing. Several factors have curtailed development of land sales: those who received land through compensation were prohibited from selling for three years; foreigners and corporate entities are prohibited from purchasing land; no individual is allowed to own more than 300 hectares; delayed land titling[15] and a lag in updating the cadastre have created a serious bottleneck in the land market; and because of the many difficulties, financial institutions are often unwilling to finance land purchase that use land as collateral. As a result Hungarian land prices are roughly one fifth of Austrian prices.

Housing Assets

At the end of the 1980s, Hungary had about 4-million dwelling units, worth approximately HUF 5,500 billion of which about 720,000 to 730,000 were publicly owned.[16] The divestiture of publicly owned dwellings' started[17] at the beginning of the 1970s and accelerated after 1990. By 1996 state ownership had fallen below 6 percent in number of units and below 3 percent in value. More than 90 percent of dwellings are owner occupied, which is higher than in most other countries.

The majority of state-owned dwellings were sold to the tenants. Divestiture was initiated at the request of a qualified majority of the tenants of a building block. Sales of dwellings were at extremely preferential prices, amounting to about 25 percent of market value. Tenants had three options: (1) to pay 10 percent of the contract price in cash and receive a 25-year credit for the rest at a 3-percent nominal interest rate; (2) to pay the price immediately in cash with a 36-percent reduction; or (3) to be entitled to pay the purchase price in coupons (this applied to tenants who

were initial holders of compensation coupons). Most of the dwellings were in poor condition; new owners had to refurbish, estimated to cost 30 to 50 percent of the market value of dwellings.

The major consequences of the transition are as follows: (1) it has led to a further deterioration of social housing by number and value; (2) most tenants purchased their dwellings to capture the windfall benefit; however, many are unable to cover current costs (debt service, unsubsidized current costs, refurbishment), and have attempted to resell their dwellings to municipalities; (3) neither the private sector nor the central or local governments are willing or able to build new social dwellings; (4) one positive effect is that the regressivity of the remaining municipal dwellings has significantly decreased, as those remaining in social housing are quite poor; and (5) the present rental market is negligible and segmented into two parts. The private market is now focused on high-quality large units and small, high-value downtown units, while state/municipal rentals are mostly very low quality units, plus buildings registered as national landmarks.

Municipal Assets

Three types of assets were transferred to the municipal governments when they were established in 1991: the basic assets that had formerly belonged to the local councils; assets belonging to local public utilities, such as water companies, but including protected areas and building destined to remain in municipal ownership; and a third class of more commercial assets coming from enterprises founded by local councils, but subject to the privatization process.

The basic assets were those used to provide citizens with local services as defined by the Act on Local Governments[18] and included schools, health facilities, social institutions, culture homes, dwellings, local roads, and parks. They were valued at an estimated HUF 1,400-1,800 billion in 1991 (Pitti and Varga 1995; State Auditing Office 1993).

Also transferred to the municipalities were non-basic assets, such as local public utility companies. While no asset registration or evaluation took place before transfer, these assets were estimated to be worth HUF 900-1,100 billion in 1991. Municipalities are free to sell these assets, and many have already done so.

In practice, municipal asset management has been limited to managing the types of assets they had experience with in the pre-transition period, such as dwellings and public utility companies. Some munici-

palities have outsourced non-basic services such as park maintenance, local transport, and solid waste management to private companies. However, at the end of 1994 the municipalities still owned more than 3,000 companies providing non-basic services, though the holdings were worth only about HUF 63 billion. There is relatively little information on the assets owned and managed by the municipalities, which seems to reflect a certain lack of central concern with the management of these assets. Given the very tight budgetary situation of many municipalities, there is some evidence that they are selling assets to finance current account deficits. This is a short-sighted solution to their budget problems.

NOTES

1. Transfer prices are indicators of market values; however, all transition economies lack developed asset and capital markets, thus privatizations have taken place within artificial market circumstances, in particular when assets were swapped for vouchers or transferred for free.

2. Comparing values of two distinct years has its limitations. Processes taking place between the two observations become obscure. For example, in terms of GDP, Hungary gradually recovered after the major decline in 1991; by 1995, GDP was equal to 92 percent of its 1990 level.

3. Common terms of these contracts are tied elegantly to the August wheat price at the Budapest Commodity Exchange: 15 to 20 kilograms of wheat per gold crown of land value represent the annual rental fee.

4. The negative consequences of the agricultural reform are reflected in aging equipment, a decline in investment, and a fall in per-hectare productivity by 40 percent brought about by the reduced use of purchased inputs, caused in part by a shortage of capital and credit.

5. The high level of centralization was made possible by the small size of Hungary. There was no need to create regional privatization offices or delegate state ownership rights to the municipalities.

6. See Act No. LXXIV/1990 on the Privatization, Alienation, and Utilization of Assets of State Enterprises Involved in Retail Trade, Catering and Consumer Services (The Pre-privatization Law). It is important to note, however, that out of 11,000 pre-privatization transactions, only 3,668 were carried out according to this legislation. In the majority of sales, other privatization laws and techniques served as the legal basis.

7. In 1990, for example, the country's largest insurance company sold for $120 million by the Ministry of Finance. In the same year, the largest manufacturing firm, light-source producer, Tungsram, was sold for $150 million to General Electric by a state-owned Hungarian bank. These large deals, and many others, were always transacted with the full knowledge and approval of the government.

8. Contrary to the expectations formulated in 1990, the Budapest stock exchange is dominated by foreign investors. It is estimated that 70 to 80 percent of daily turnover is generated by western investment funds and similar agents.

9. From a corporate governance point of view, the initial socialist cooperatives can be considered as quasi-state units, as their operational circumstances were quite similar to those of state farms (and other state enterprises). In contrast, the recent transformation has created an effective private agriculture.

10. Enterprises in small construction, the food industry, metal, electric and textile manufacturing and retail, transport, and maintenance services had been established for diversification, off-farm employment, and tax purposes during the previous two decades.

11. The legal framework of the whole transformation process comprises the following laws: Law No XXV of 1991: Compensation Law; Law No I of 1992, Law on cooperatives; Law No. II of 1992, Transition Law; and the Law on Land by 1994. According to these laws, neither legal entities nor foreign citizens can own land, and individual Hungarian citizens can own land (including forest) of up to 300 hectares.

12. Spun-off units have been sold for restructuring or debt repayment purposes since the mid-1980s, and mainly in parallel with the break up of cooperatives and state farms after 1992. Reorganization has been subject to creditors' consent.

13. Compensation coupons and cooperative quotas are transferable bearer securities; however, initial holders of coupons have exclusive preferential rights in purchasing land or selected non-land state assets.

14. Recent surveys show that about 65,000 medium private farms cultivated between 30 and 300 hectares each, and more than 1,000 large private farms cultivated more than 300 hectares each in 1995. (Fertő and Mohácsy 1997).

15. By mid-1996, about 55 percent of parcels under the compensation scheme were properly titled, and only about 10 percent of cooperative members who became new owners received titles. Consequently, solid information on land ownership and land use is severely missing.

16. Including dwellings owned directly by the state, municipalities, and state-owned enterprises.

17. Privatization of dwellings became possible in 1969. Significant divestitures started in the 1980s, but the privatization program started only in 1990 and the pace of divestitures was speeded up by the Law on Housing from 1993.

18. 1990/65 Act on Local Governments.

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13 Reforms in Public Finance Management

József Thuma, Hana Polackova, and Carlos Ferreira

Public finance reform initiatives in Hungary have called repeatedly for reform of the fiscal institutions as a priority government task since 1987. For a long time, and despite some attempts, it remained obvious that the budget system and process were excessively decentralized and failed to provide a foundation for government prudence, accountability, and responsiveness. The government, much less the public, hardly knew where and how public moneys were spent, how many people the state employed, and what services the public sector delivered. The 1995 public finance institutional reform proposal attempted to bring some balance to the system. It was built around four crucial objectives: enhancing the transparency and political viability of government decisions; securing aggregate fiscal control and macroeconomic stability in the medium term; improving public expenditure equitability and allocative efficiency; and promoting operational efficiency and cost-effective use of public moneys.

During 1996-97, aggregate fiscal control and available information about government cash flows improved. As a necessary condition to these results, the government dissolved more than 30 extra-budgetary funds and earmarked revenues in a more comprehensive state budget, and made a larger share of its expenditures subject to review through the regular budget process. For budget execution, a Treasury system was established to make all government payments from a single account, to control ex-ante any such payment against budget appropriations, and to record them in the general ledger. These steps have limited the scope for overspending and misuse of government funds and—by keeping the cash centrally available at the single account and, thus, reducing public borrowing needs—have improved the efficiency of cash management.

Institutional arrangements and methodologies for budget management remain on the reform agenda, mainly to secure long-term fiscal stability and to widen the extent to which public spending reflects policy priorities and is subject to public scrutiny. In the budget process, the government is moving from annual ad-hoc, wish-list-driven spending decisions toward a framework of strategically planned expenditures that

are predictable in a multiyear perspective. Through a pilot approach, some features of a medium-term budget analysis, and more result-oriented budgeting, budget evaluation and reporting have been introduced. Major government decisions, legal adjustments, and down-to-earth work are, however, still needed before the 1995 reform objectives can be accomplished fully.

PROBLEMS WITH PRE-1996 BUDGET MANAGEMENT: FREEDOM WITH LITTLE CONTROL

The budget system and budget management in Hungary have witnessed several reform movements going back to the 1968 New Economic Mechanism—each of which increased decentralized decisionmaking and proliferation of budgetary institutions. Through the 1980s, general government agencies were independent in legal terms, obtaining earmarked revenues on own revenue accounts,[1] freely engaging themselves in commercial activities to supplement their budgetary resources, borrowing independently from commercial banks, or issuing securities when needed, and spending without much reporting from their own expenditure accounts. The government, thus, became heavily involved in commercial activities—as did the National Bank of Hungary (NBH), which held the agencies' accounts. It was never asked why government agencies rather than the private sector should be involved in particular activities. And the information about agency operations, revenues, and expenditures available to the Ministry of Finance and line ministries was very inaccurate. The Ministry of Finance, thus, ended up with very little effective control over Hungary's overall budget, expenditures, and debt.

Allocative and Operational Inefficiencies

The extent of fiscal decisions made outside the state budget, and not necessarily reflecting overall government policy priorities, increased in the early 1990s. Since the state budget faced financing problems, agencies, beginning with social security programs, acquired the right to identify their specific functions and establish extra-budgetary funds to collect own earmarked revenues. The Law on Public Finances, adopted in 1992 after a long period of preparation, was a first attempt to specify institutional responsibilities and core procedures in the budget system, but left agencies the right to collect, retain, and spend revenues above the budgeted amounts. Moreover, this fragmented fiscal system made only the previous year's budgeted figures—rather than actual revenues and expenditures—available as the basis for the budget proposals, and any re-

allocation of budgetary resources was extremely difficult. The total revenues and expenditures proposed by the government in the budget process approved by Parliament, thus, served purely as indicative targets, rather than as instruments to implement government policies.

While budgetary institutions and funds had total discretion over about half of public revenues (collected through earmarking and extra-budgetary funds) outside the central budget, the central budget became increasingly tight. Out of general government revenues of about 55 percent of GDP in 1993, 12 percent of GDP was collected and spent directly by social insurance funds, about 6 percent by local governments, and about 4 and 3 percent directly by the extra-budgetary fund and central budgetary institutions. In an attempt to establish some control, the government launched an open-book budget process, requiring that all budgetary institutions provide Parliament with detailed descriptions of their purposes and tasks to justify their budgetary resources for the following fiscal year. In practice, however, budgetary institutions were not required to link tasks to their budgets or their actual expenditures. Overall budgeting remained driven by the numbers of employees and wage bills, and as far from policy intentions as ever.

The system gave extensive fiscal powers and rights to budgetary institutions, but it neither encouraged the right incentives nor allowed adequate means of control. It produced incentives for agencies to be entrepreneurial in finding revenue sources, but not to use the resources efficiently, or toward government policy priorities. Government agencies were partly allowed to carry over their excess revenues across fiscal years, and use them for salary supplements. In such a framework, the State Audit Office restricted itself to safeguarding public moneys against massive embezzlement. Agencies continued putting public moneys into any activity they wished, reflecting the general assumption that the government should be directly involved in everything unless there were strong reasons against it, and having no incentive to do so efficiently. In effect, the government was in competition with the private sector. For example, hospitals used their laundry facilities for commercial purposes, road construction crews used their equipment and materials for private-sector projects, and research institutes provided services to private customers for fees. These operations were subsidized at least partly from the central budget, which covered salaries, utilities, and some investment in equipment. Agencies mingled budget allocations and public services with their own commercial revenues and market activities, often displacing competitors from the private-sector. The 31 chapters of the

budget included the National Press Agency, the Hungarian Radio, and the highly profitable Hungarian Television, which collected about one third of the government's commercial revenues in 1994.[2]

Loss of Control Over Aggregate Fiscal Balance

Not surprisingly, the devolution of fiscal decisions in an environment of improper incentives, minimal control, and freedom to borrow, had disastrous effects on Hungary's overall fiscal outlook. First, allocating budget resources to government agencies based on their financing requirements above estimated own-revenues gave agencies no incentive to raise revenues—and incentives to underreport estimated revenues. The agencies, in effect, unilaterally increased their allocated budgets, distorting the political decisions reflected in the national budget. The State Audit Office pointed out that the government financing system scheme generated very soft budget constraints and incentives toward fiscal expansion (IMF 1994).

Second, spending and commitments by government agencies were disconnected from the overall economic and fiscal analysis. In the early 1990s, when the economic slowdown and outsourcing of profitable activities from government to new private companies caused a shortfall of budget revenues (discussed in chapter 17) requiring supplementary budgets to finance core government functions, many government agencies continued committing funds generously to new investments. Thus, in 1993-94, it became apparent that the incremental and fragmented approach to fiscal decisions, coupled with the soft budget constraints, was not sustainable.

Third, the complexity and information deficiency of the system, which obstructed both budget preparation and control, also hampered forecasting of government financing needs and cash management, requiring excessive government borrowing. While 3,000 accounts of budgetary institutions continually maintained positive cash balances at their own accounts at the National Bank and in commercial banks, the government had to issue debt at market interest rates to cover its other agencies' financing gaps. In addition, some government agencies issued securities to cover occasional deficits. Other government agencies, which happened to have excess cash, legally purchased government securities or deposited excess in interest-bearing accounts in commercial banks, retaining the interest income. These processes led to excessive government borrowing, pushing interest rates beyond 30 percent and crowding out private investment.[3] In addition, efficiency was lost because of the

excessive number of unnecessary financial transactions with the state budget paying market interest to other parts of the government.

At the beginning of 1995, the dynamics of fiscal deficits and public borrowing became unsustainable and the government accelerated public finance management reform. The government admitted that institutional and technical deficiencies were at the root of its inability to reveal the transfers and final use of public moneys, prevent over-commitment of public funds by budgetary institutions, avoid excessive public borrowing, and provide decisionmakers with the relevant, accurate, up-to-date, and adequately detailed information needed for policy decisions. The government acknowledged that more effective and reasonable use of the taxpayers' money could be achieved only through comprehensive institutional reform and modernization of the entire system of public finances and public administration, and adopted a decree in 1996. The main problems in Hungary's fiscal management prior to 1995 are summarized in table 13.1

THE ESTABLISHMENT OF THE HUNGARIAN STATE TREASURY: BRINGING THE BUDGET UNDER CONTROL

In June 1995 the Ministry of Finance, the NBH, and the Parliament reached consensus and a very ambitious decision to establish a fully functioning treasury system and treasury single account by January 1, 1996.[4] The Minister of Finance appointed the Treasury's president and a working group of financial and information systems experts to implement the decision. Foreign observers, including experts of the International Monetary Fund, World Bank, and the national treasuries of France and the United States, offered assistance and helped design the Hungarian Treasury, but remained skeptical about the ambitious deadline.

The Treasury was to be responsible for financial planning, ensuring orderly financial executions of the budgets of budgetary chapters, central budgetary institutions, extra-budgetary and social security funds, transfers between central and local government, and efficient management of government cash and the financing of government deficits. The treasury single account was to reduce expensive money transfers to and from government accounts, make the government's own revenues (rather than borrowings) more readily available for spending throughout the fiscal system, and, thus, reduce government financing requirements and interest charges on the budget. During the critical year 1996, the Treasury was to be responsible for handling smoothly the transition to the new

Table 13.1 ***Problems, Effects, and Possible Remedies in Public Expenditure Management in Hungary before 1995***

Problem	*Effects*	*Possible Remedies*
Lack of strategic planning Across sectors Across investment projects Across government agencies and funds Across fiscal years	Needs-driven policy decisions and wish-list budgets without proper consideration of affordability Ad-hoc incremental budgeting Increasing size of the public sector Opaque fiscal, economic, and social effects of public policies	Rigorous economic and fiscal analysis to estimate revenues and expenditures in the medium term Analysis of medium-term fiscal, economic, and social effects of proposed policies prior to policy decisions Flexibility in reallocating scarce public resources to priority needs by bringing extra-budgetary and earmarked funds into the budget Linking strategic planning, policies, and budgeting through improved institutional arrangements, budget analysis, budget structure, and incentive mechanism in the budget process Evaluation of previous year's budget outcomes
Lack of accountability in Budgetary decisions and their medium-term effects Commitments and expenditures Cash and resource management Monitoring and control	Overbudgeting Overcommitting Spending above the budget Unsustainable fiscal policies Costly government financing, excessive state borrowing, and deteriorating borrowing terms Costly service delivery	Defined responsibilities in budget preparation and implementation processes Medium-term budget compliance mechanism Financial accountability Managerial accountability (for efficient use of public moneys and service delivery) Integrated accounting and reporting of revenues, commitments, expenditures, fiscal risks, and liabilities to the public Monitoring and control mechanism Clear punishment for breach
Lack of transparency in The functions of the state Linkages between the macroeconomic developments, fiscal policies, and the budget Budget classification Budget coverage Decentralized decisionmaking processes Revenue and expenditure figures Government financial transactions and accounts	Excessive number of budgetary institutions offering various services Budgeting above revenue levels Overcommitting Spending unrelated to policy priorities; public moneys spent on commercial activities Lack of information about the final use of public moneys, commitments, and arrears Earmarked and extra-budgetary revenues spent beyond government control Idle money balances innumerous government accounts	Defined role, objectives, and priorities of the state Definition and classification of public revenues and expenditures, adequately detailed budget structure reflecting government programs Medium-term expenditure framework Bringing earmarked and extra-budgetary revenues into the budget Opening the budget process and improving parliamentary oversight Accounting standards and reporting requirements Establishing mechanisms for effective budget control, treasury system, and treasury single account Empowering the State Audit Office Regular monitoring and public disclosure of budget policies, budget outcomes, and audit results

budget execution system, training staff of budgetary institutions, creating the basis for further development of the system, and achieving the savings and results expected.

The New System

After six months of preparation, the Hungarian State Treasury started functioning on January 1, 1996. The Treasury was established as an independent, central budgetary organization operated under the professional, legal, and budgetary supervision of the Minister of Finance. In practice, the Treasury and its branch network were built on the existing budget implementation functions of the State Development Institute and the NBH. The ledger system of the NBH, containing the accounts of government agencies, was transferred to the Treasury. To facilitate the recruitment and retention of qualified staff, the Treasury obtained a special salary scale for its public employees and absorbed experienced professionals from the State Development Institute, the NBH, and the NBH's 19 county directorates.

Compared to the initial plan, the Treasury's functionalities and number of clients were scaled down and the newly established treasury system now mainly provides mandatory banking services to the central budgetary agencies and extra-budgetary funds, keeps a general account of the use of allocations, and maintains current accounts for the social security funds and the Hungarian Academy of Sciences (a non-profit organization). The Treasury receives revenues; executes expenditures; keeps records on budget appropriations, commitments, and financial transactions; and enforces a strict relationship between budget appropriations and payments.

The treasury single account was established at the NBH. The Treasury keeps all the financial assets available to the state and operates through a computerized real-time financial information system. Budget revenues, including revenues of all Treasury's clients, are deposited in the treasury single account, immediately recorded, and simultaneously credited to the appropriate account in the government financial information system. Extra-budgetary funds are no longer allowed to be spent beyond their revenues although, to provide flexibility, the Treasury may grant interim credit to the funds to cover a short-term cash shortage. This credit is interest-free and extended automatically, by law, to the social security funds. At year's end, balances of the extra-budgetary funds are integrated into the state budget, and their deficit becomes state debt. Budget allocations of central budgetary institutions are recorded in the

general ledger, one twelfth at the beginning of each month. In the relation to each budget appropriation, the general ledger registers expenditures and revenues specified in the budget law, and any internal transfers between agencies, that affect neither the cash turnover nor the treasury single account. Only transfers outside the system are debited to the treasury single account at the NBH.

Another measure to increase efficiency of public finance management was the decision to adopt net financing of local governments. Transfers to local governments from the share of the personal income tax and normative state support are automatically reduced by the amount of their debts to the state or the social security system (for example, in the form of uncollected personal income taxes, social security, and other contributions).

The treasury single account balance at the NBH bears overnight interest corresponding to the basic interest rate of the central bank. The Treasury proportionally credits interest revenues to its clients. To maximize interest income, the Treasury makes all payments and transfers at the latest time allowed by the legal regulations.

To maintain an adequate balance in its single account, the Treasury manages and coordinates issuance of government securities. Government borrowing strategies and issuance decisions are coordinated through the Treasury Council, which constitutes a higher-level decisionmaking forum of the Ministry of Finance, managers of the Treasury, and a representative of the NBH. The Council reports to the Minister of Finance, and meets every second week to discuss and approve a report on budget implementation prepared by the Treasury; the financing strategy prepared by the Treasury's Debt Management Agency (ÁKK); the monthly and continuously updated financing plan (originally outlined six months in advance), and the ÁKK report on the implementation of the financing plan, the financing events that occurred between the Council's two sessions, and on market intervention. The ÁKK carries out the borrowing decisions.

The New Treasury Ledger System and 1997 Development

In 1997 Treasury clients were expanded to include the social security and budgetary organizations, regional and county development councils and their working organizations, the National Radio and Television Corporation, and other public bodies. And, after a year's discussion, the management of foreign debt was transferred from the NBH to ÁKK. By July

1997 the organizational units and branches of the Treasury had expanded to employ 370 staff at headquarters and 460 staff in the branch network.

The Treasury developed a new ledger and accounting system (T97) that enables it to double check both liquidity and priority allocation before executing transfer orders. The Treasury does not execute transfer orders that have liquidity coverage, but lack allocation coverage. The T97 system makes it possible to handle overlapping, pending, and equalizing items. The Treasury introduced new vouchers and procedural order to account for items that do not involve actual money turnover, and thus improve the validity of government accounting data and of the Treasury's budget reports. Gradually, the Treasury has started to register and verify commitments and control their levels against budget appropriations. For orders falling under the scope of the law on public procurement, at the time of placing orders, the Treasury both secures the necessary sums to fulfill commitments and prevents institutions from exceeding the allocation limits. To further reduce use of cash, the Treasury has started to wire salaries and wages of government employees directly to the employees' bank accounts.

In its information network the Treasury incorporated the public finance identification numbers given to public agencies and expenditure types. These identification numbers serve as a basis for data gathering and processing, according to functional classification—not separately for each budgetary institution, but in the order of titles and subtitles that group budgetary organizations according to the United Nations Classification of the Functions of Government of the Government Financial Statistics (IMF 1986), allowing accurate monitoring of budget execution across time. The Treasury also developed and introduced new software to record treasury transaction codes for each budget allocation, continuously follow the implementation of priority budget allocations throughout the year, and supply reliable data for economic analyses and policy decisions. The transaction code is a three-digit number that identifies priority allocations according to the budget law and to the type of transaction. Transaction codes for different types of expenditures are processed concurrently with banking transactions to identify payment purposes. As a result, the cash flow of the Treasury's clients can now be followed on a daily basis. Similarly, the turnover in state accounts (for example, tax revenue accounts, interest payment accounts, and public institution accounts) is available daily by legal titles corresponding to the structure of the balance sheet. Through data collection by account holders the pieces of information can be grouped in any aggregate of the ad-

ministrative classification system. The operation of the system is made possible by a national computer network (see the accounting system in figure 13.1).

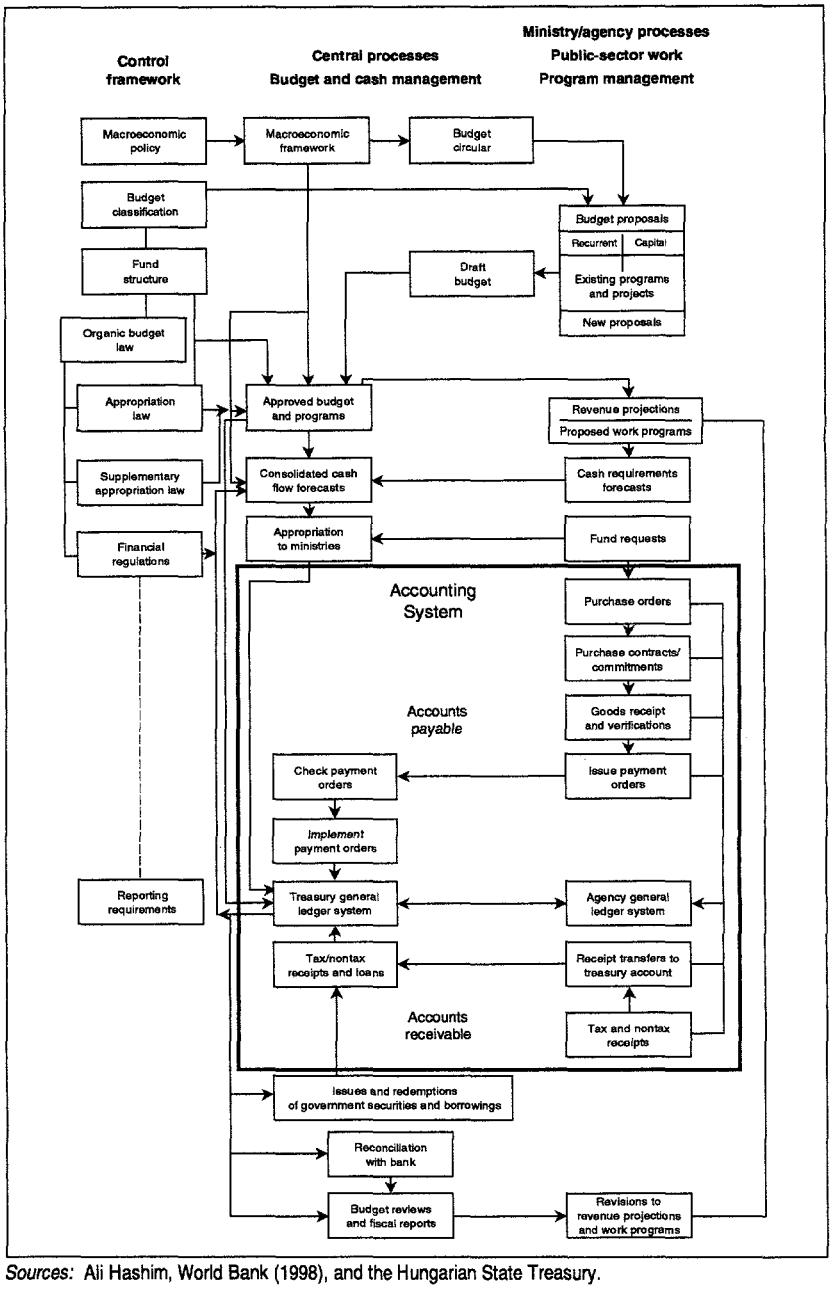
In this more transparent environment, the scope for public agencies to reallocate budget has enlarged. With a notification to their supervisory organization, public agencies have the authority to modify their allocations covered with excess revenues and residual sums charged with carried-over commitments. Generally, budgetary institutions also can regroup up to 10 percent of their allocation within the operational budget. The Treasury keeps registries of indebted institutions and the unsettled account stock of the institutions. The Minister of Finance appoints the treasury commissioner to supervise indebted clients if their debts are more than 60 days overdue and exceed 5 percent of the allocation or Hungarian forint (HUF) 50 million. As long as the debts are paid, the countersignature of the treasury commissioner allows the indebted institutions to undertake further commitments.

In a pilot approach to strengthen the performance emphasis in state budget management, the Treasury has introduced program financing. Several government programs have been singled out as priorities in the budget process, budgeted separately based on their cost estimates, and executed through performance contracts. The contracts set out the content of programs, modes of implementation, and the conditions of financing. Some 113 programs in the total amount of HUF 40 billion entered this financing circle in 1997. The Treasury transfers payment for specific tasks upon verification that they have been performed.

EFFECTS OF THE 1996-97 PUBLIC EXPENDITURE MANAGEMENT REFORMS

The most important benefits of adopting a modern treasury operation based on a treasury single account accrue from superior budget execution, including the Treasury's ability to produce timely and reliable information on the operations of the public sector; stricter cash management, particularly the elimination of discretion over the use of idle balances, creating an environment conducive to better expenditure control; the implementation of a framework for smoother cash and debt management; and the possibility of adopting measures for effective management of the overall national budgetary policy.

Figure 13.1 ***Ensuring Financial Control in the Budget Process***



Sources: Ali Hashim, World Bank (1998), and the Hungarian State Treasury.

A review of the new Hungarian State Treasury also indicates impressive financial results. The cost of public finance transactions has been reduced, while adding transparency and discipline to those transactions. The Treasury has integrated three of the four subsystems of public finances: the central budget and its institutions, separated state funds, and social security funds. Local governments have not yet been integrated, although the intention remains to implement financial management reforms in this area. The following major sources of financial costs and savings have been quantified (table 13.2).

When comparing the financial-management costs that would have been accrued under the 1995 budget execution rules in 1996 against the actual 1996 costs under the new treasury system, the consolidated financial effect of the changes listed above is a savings of about HUF 17.11 billion to the Treasury, of which about HUF 6.78 billion went to the government as a whole.

LESSONS AND AGENDA FOR THE FUTURE

Public finance management reforms in Hungary need to continue, particularly in the context of the country's European Union (EU) accession process. To meet the annual cash-based fiscal targets of Maastricht and maintain fiscal balance without breaking policy promises, Hungary needs to monitor more closely the overall fiscal position of the public sector. The government needs to foster public awareness about public finance affairs, and its transparency and accountability, as required by the EU. This will require the government to consider any spending promises, guarantees, and possible fiscal risks strictly in a medium-term framework. To analyze and show expenditures with their medium-term fiscal effects, fiscal risks, liabilities, and contingent liabilities in a transparent balance sheet, the government needs to improve further its institutional, accounting, and reporting frameworks. The government will be able to manage fiscal risks soundly—to insure both predictability of its actions and fiscal balance—only if it explicitly sets limits of the role and responsibilities of the state, and makes any specific fiscal risks and contingent liabilities a part of its medium-term budgetary decisionmaking process.

Table 13.2 ***Costs and Savings from Implementing the Treasury Program***

Costs	*Explanation*
Treasury's revolving account requirements Treasury: zero Government: zero	To sustain the day-to-day operation of the treasury single account (TSA) and avoid pressures on government borrowing strategy, the Treasury must maintain a certain reserve TSA balance in the NBH. On average, the nominal cost of maintaining this TSA reserve balance equals the interest paid by the Treasury on this amount in borrowing. Assuming that the interest rate spread between the Treasury borrowing rate and the NBH rate is small, the Treasury's interest expenditure on maintaining the reserve TSA balance is covered by the interest revenues accruing on the TSA account balance from the NBH.
Treasury's sterilization of excess liquidity according to the NBH's sterilization requirements Treasury: zero Government: zero	The NBH has the task of sterilizing excess liquidity in the market. The establishment of the TSA, which maintains the overall current balance of government cash, has created a mechanism through which the excess balance of the government is sterilized automatically. An increase at the current TSA balance reduces the sterilization task of the NBH. Thus, the Treasury is partly taking over the cost of sterilization from the NBH. But the NBH pays the Treasury interest on the TSA balance. This interest income from the NBH covers the sterilization cost assumed by the Treasury; thus, the overall financial impact on both the Treasury and the NBH is zero.
Savings	*Explanation*
Central government deposits at the NBH Treasury: HUF 10.33 billion Government: zero	Before the current financial reform, the NBH functioned as the Ministry of Finance bank, holding central government entity accounts and subaccounts. Central government revenues and Ministry of Finance (MOF) borrowings from the financial markets were deposited at the NBH. On December 31, 1995, the central budgetary chapters and organizations under supervision of these chapters ceased to exist. Their current accounts, and the balances of the extra-budgetary funds at the NBH, were transferred to the new TSA, and concurrently claims became rights of disposal within the frameworks of the law on the budget. This measure increased the Treasury's revolving account balance from HUF 105.1 billion on December 29, 1995, to HUF 157.6 billion on January 1, 1996. In turn, this increase led to a HUF 10.33-billion interest growth in the Treasury. The continuous flow of interest allows for better accounting and smoother management of liquidity. It is estimated that a real net savings of HUF 10.33 billion has accrued at the Treasury level from this change. For the government as a whole, no net savings accrued from the change. The payment of interest on the TSA balance increased the costs of the NBH and reduced the NBH dividends by approximately the same amount paid to the budget.

(Table continues on the following page.)

Table 13.2 (continued)

Savings	*Explanation*
Integration of central government entity accounts in the TSA Treasury: HUF 0.38 billion Government: HUF 0.38 billion	Some revenue-generating central government entities, with the Road Fund being the largest, were allowed to maintain accounts at commercial banks. On December 31, 1995, a total balance of HUF 261 million was transferred from commercial banks to the TSA at the NBH. The average account balance of the Road Fund in 1996 was HUF 1.8 billion. Based on daily interest calculations, inclusion of this amount into the TSA brought about savings of HUF 0.38 billion to the government. Small savings also were generated by forbidding central government entities from direct-market borrowing and centralizing central government borrowing in the Treasury, under improved borrowing terms.
Net transfers to local governments Treasury: HUF 3.40 billion Government: HUF 3.40 billion	Under the 1996 budget regulations, the central government has automatically withdrawn the tax and social security obligations of the local governments in relation to the central government, and transferred only the net amounts to the local governments. This new procedure reduced nominal transfers to local governments by 45 percent in 1996, from HUF 335 billion gross transfers to HUF 187 billion net transfers. This reduction generated savings of HUF 2.6 billion in interest payments. Net financing was introduced also in the financing of hospitals from the National Health Insurance Fund Administration, which resulted in saving HUF 0.8 billion in interest.
Residual balances Treasury: HUF 3.00 billion Government: HUF 3.00 billion	Residual balances of government institutions at their separate accounts amounted to HUF 25 billion in 1995, and thus unnecessarily increased government-borrowing needs. In addition, under the 1995 accounting rules, these balances were considered current-year expenditures, and thus a part of the deficit. The new treasury system pays the expenditures of government institutions directly from the TSA, replacing thus the former system of the monthly in-advance allocations to the separate accounts of government institutions. The residual balances of the monthly allocations at the various government accounts, which would have equaled HUF 77 billion in 1996, thus ceased to exist, and no residual balances were a part of either the expenditures or the deficit in 1996. The government thus reduced its borrowing needs and saved on interest payments. On the basis of daily interest calculations, the government accomplished interest savings of HUF 3 billion.

Source: Calculated by József Thuma and Carlos Ferreira.

The 1995-96 public finance reforms particularly enhanced the viability of government budget plans and efficiency of public money management. First, the institutional reforms allowed effective execution of austerity measures that brought deficit and the aggregate budget estimates under hard budget constraints and required reconciliation between ex-ante and ex-post spending. Second, the reforms fostered a more comprehensive understanding of budget allocations and processes, making a larger share of government's financial resources subject to competition

among budgetary institutions, prioritization by Parliament, and reallocation for priority needs during the fiscal year. Third, the new system restricted a larger share of major policy changes during budget implementation to those decisionmakers who had been responsible for budget formulation. Fourth, consolidation of the budgetary sphere and the establishment of the Treasury enabled enforcement of budget constraints and transparency throughout budget execution. Fifth, the payment of all government financial transactions through the treasury single account has reduced the cost of government financing and government borrowing needs. Sixth, the scope of the government has been gradually revised, and some expenditures on affairs distant from the government's policy objectives have been removed from the budget. It is anecdotally reported, for example, that the number of staff of the Hungarian Television and Radio has dropped significantly, yet TV and radio programming has improved.

Improving the Medium-Term Expenditure Framework

Several measures are being taken to further improve budget planning. A medium-term budget planning system is being tested to enhance the government's understanding of the linkages between revenues, spending programs, and future macroeconomic and fiscal developments, to ensure sustainability of the government expenditure targets. The government is aiming at providing rolling three-year estimates of revenues and appropriations—initially for its internal use and, later, to be published as an instrument of medium-term budget compliance and accountability to the public.

The government has been improving its revenue forecasting methodologies in medium-term fiscal models, and has developed several sectoral medium-to-long-term models, such as an actuarial pension model. Indirectly, as gross financing of budgetary institutions was removed, incentives underlying projections of revenue and expenditures became more direct; more reliable and relevant information within the government financial information system allowed for better fiscal projections and budget estimates. In 1997 the Ministry of Finance used the medium-term economic framework to analyze the fiscal effects of the government's budget policies and specific sectoral policies. The benefit of the fiscal models allowing the analysis of the future consequences of alternative policies has been apparent during the pension debate preceding the vote in Parliament (see chapter 7).

Aggregate fiscal discipline has been fostered by the 1996 Public Finance Reform Decree designating the Ministry of Finance as responsible for the overall budget preparation in the medium-term expenditure framework. The role of the ministries has been limited to the preparation of their budget proposals under the ceilings and guidance of the Ministry of Finance. The stronger role of the Ministry of Finance has facilitated the ongoing transformation of budget planning from an ad-hoc incremental process into fiscally prudent decisionmaking (as illustrated in figures 13.1 and 13.2). Starting in 1999, the government expects that each spending-program proposal will be accompanied by a business plan that assesses the spending programs from three perspectives: medium-term sustainability, relevance to policy priorities, and efficiency of the delivery mechanism. Subsequently, the set of business plans produced by each budgetary institution is expected to provide justification for the institution's own existence and operations.

Expenditure Decisions in Relation to Policy Objectives

In contrast to the quick reforms toward aggregate fiscal and cash control, there has been rather slow progress in improving the institutional arrangements for budget preparation. Budget allocations and prioritization among competing spending claims have yet to fully reflect government policy priorities. The use of public moneys is yet to be tightly linked to government programs, activities, and policies.

An interagency task force led by the Ministry of Finance has prepared a proposal of an improved budget management framework for consideration by the government and Parliament. In the proposed framework, the Cabinet and Parliament would define intersectoral priorities and require that budgetary allocations be linked to the cost of delivering specific services and accomplishing specific policy objectives. The Ministry of Finance would ensure that sectoral budget ceilings reflect the government's overall policy priorities and line ministries would receive more control to determine spending programs in their sectors. The budget structure would reflect government programs and institutions and a fully functional breakdown of expenditures. Both the Ministry of Finance and budgetary institutions would improve their capacities in ex-ante analysis and ex-post evaluation of government programs. Each year, the Parliament would adopt a three-year budget and require budget compliance with the three-year estimates. Financial information on inputs (wages and material cost) available through the Treasury would be complemented by information on cost and performance of government

Figure 13.2 ***Proposed Future Budget Cycle***

1. Review and Analyze

Take the results of budget planning and implementation of the previous fiscal year as the background for new budget planning.

Budget planning and implementation information has been made timely available through the Treasury. However, the government has yet to develop the capacities to analyze and utilize this information.

2. Plan Strategically

Estimate macroeconomic indicators and revenues.

Set out broad policy objectives and expenditure priorities; analyze the medium-term fiscal and economic effects of proposed policies.

Set expenditure targets.

Macroeconomic and revenue forecasting capacities are not reliable yet. Macroeconomic model contains one sector only. The government sets broad policy objectives bargaining with the trade unions (mainly on wages), without much intersectoral prioritization. Analysis of the medium-term effects of proposed policies is very limited. The government sets expenditure targets and guidelines for budget preparation.

3. Mobilize and Allocate Resources

Prepare budget: Link budget allocations to the cost estimates of the delivery of government services and of the accomplishment of policy objectives.

Encourage bidding by agency work programs.

Adjust civil service to the agency work programs.

Budget proposals are collected from ministries and lower level institutions and scrutinized by the Ministry of Finance. Government programs are generally not defined; cost of services not estimated. Budget allocations reflect the required wage bill rather than policy objectives. Most urgent tasks are designated for priority financing; the overall budget is prepared incrementally. Bidding by agencies is tested through the Treasury program-financing pilot. Civil service is yet to be adjusted

4. Implement Efficiently

Collect revenues, prioritize before spending, release funds through a transparent treasury system, deploy personnel, undertake activities.

The Treasury directly communicates with the tax/customs administrations and collects revenues. Prioritization before spending is possible through the order of the Minister of Finance. Funds are released transparently. Deployment of staff and government service delivery is not monitored.

5. Monitor and Account

Supervise government activities and the overall implementation of budget.

Monitor personnel and accounting information.

Account for and monitor commitments and expenditure.

The Treasury monitors the financial transfers and expenditures against the budget appropriations. Nonfinancial activities of the government are generally not supervised.

Monitoring of personnel and accounting information is still fragmented.

Commitments are monitored by the Treasury but for public investments only.

6. Evaluate, Audit, and Publicize

Assess the effectiveness and the value for money of government programs and seek accountability.

Audit government accounts and the financial and managerial performance of the public sector.

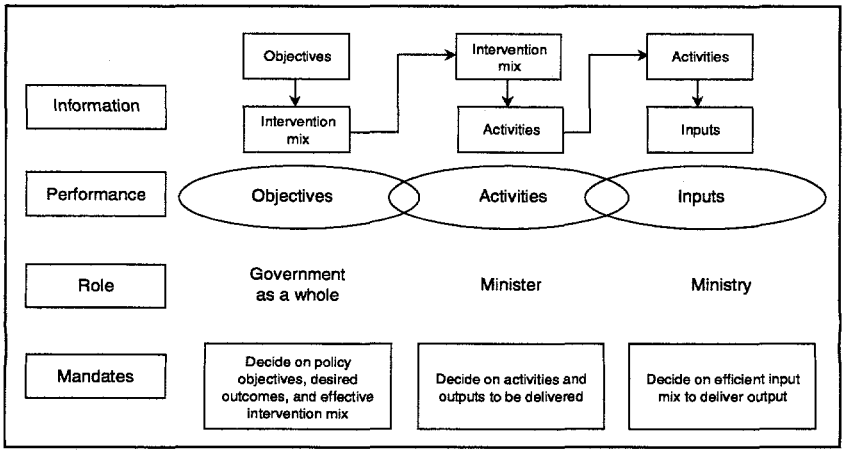
Publicize the results of evaluation and audit.

There is no legal background for qualitative assessment of budget implementation.

The State Audit Office conducts financial audit only. The audit results are published to a limited extent. Throughout the budget cycle, the publicly available information is very limited.

Source: World Bank (1998).

Figure 13.3 ***Proposed Roles, Performance, and Information***



Source: Tony Dale and Ian Ball, personal communication.

programs. This information would be readily available through an on-line system and utilized for budget control, for evaluation and audit of performance of public agencies and of the government as whole, for public awareness, and for future policy decisions. Adequate mechanisms for financial and managerial accountability would, in turn, allow for the introduction of performance-based contracts in the civil service and for managerial freedom in delivery of government services. The move toward a performance-oriented public administration would most likely produce savings in the amount of government employment and in the total wage bill. To further enhance the quality of information needed for public finance performance management, the government would gradually accept accrual accounting standards and produce, in its reports, balance sheets including commitments, fiscal risks, assets and liabilities, and contingent liabilities.

In figure 13.2, the core steps in the budget cycle being developed in Hungary were shown. Figure 13.3 illustrates the broad roles, performance, and information in government budget management.

Beyond the Central Government

The 1996 public finance reforms are yet to be fully extended beyond the central government. Reporting on the budget and expenditures of general government suffers from a basic lack of necessary information from local governments, particularly regarding municipal borrowing, and from the

self-governed social security funds. Institutional capacities, including skills and information technology, to prepare and manage budgets at the local government level are reportedly very low.

In this context the government is facing another legally, politically, and technically complicated task (outlined by a government decision[5] in 1995) to consider integration of the local government cash management into the treasury system. Legally, safeguards would need to be developed to assure the local governments that the integration of their accounting, cash management, and payment systems into the treasury system would not endanger their sovereignty in expenditure decisions and access to revenues. Similarly, deficits and borrowing of local governments would need to be carefully regulated to prevent their affecting the sovereign debt. The current constitutional law on local government does not allow integration and would have to be amended by a two-thirds majority in Parliament. Politically, with the financial integration into the Treasury, the local governments would expose each single financial transaction they make to the Treasury, and hence to possible questioning from the side of the central government and perhaps even the public.

Technically, the integration would bring the financial resources of some 20,000 entities into the treasury system and increase the number of treasury organizations about five times, which would generate efficiency gains in overall government cash management, but require major upgrading of treasury services. The Treasury would have to offer local institutions commercial banking services, including project funding, liquidity credit, and payment of interest on account balances. Also, the treasury county network would have to absorb the regional Public Finance and Public Administration Information Service Agencies (TÁKISZ), which process the monthly payroll of the nearly 550,000 public employees employed by local governments. All activities of TÁKISZ are closely connected to the financial management of local governments to the net transfer of supports from the central budget. It appears, however, that the integration of TÁKISZ would require the staff number of the Treasury to quadruple.

CONCLUSION

Hungary has embarked on a serious and ambitious program to reform government institutional arrangements and capacities in fiscal management. The reforms have supported government decisions to reduce overall spending, and provide more transparent allocation and use of public

moneys. Institutional and technical improvements in budget management, including the establishment of the Treasury, have contributed to the viability of government institutions and policies, to the reliability of public revenue and expenditure figures, to fiscal stability, and to efficiency in government money management. They also opened the door for greater performance emphasis in public management, possibly including a greater managerial freedom and performance contracts in the delivery of public services.

Still, much remains to be done to support the main public finance management reform objectives for the future. Hungary still needs to improve allocative efficiency and transparency in the budget process; medium-term linkages between macroeconomic and fiscal analysis, policy priorities, the budget, and budget implementation, and between announced policies and undertaken actions; and public openness in the budget debate, policy decisions, and government performance evaluation. A government task force has proposed an institutional and technical framework for budget management, which, depending on the government's decision and some legal adjustments, would represent a great step in the right direction. The new framework seeks to redefine government functions and operation by enhancing institutional arrangements, putting emphasis on performance, and developing new systems for medium-term expenditure planning, for budgeting and government accounting, and for budget implementation, monitoring, reporting, evaluation, and audit. The new framework should also encourage the government to specify and enforce the respective roles and responsibilities of the state as a whole, ministers, ministries, and budgetary institutions.

NOTES

The authors are grateful to Gizella Csonka and Ali Hashim for inputs and comments.

1. Earmarking is generally considered appropriate when the provision of a public service can be linked tightly with the revenue raised and the service is not subject to redistribution. In such situation, revenues can be raised as a user charge for the service (for example, toll roads) or as a tax on a complement to such a service (for example, a tax on fuel use may serve as a proxy for road use). The provision of such services by government should be, however, reconsidered in the first place.

2. To illustrate the complexity of the system, let us point out that the budgetary chapters administered some 1,400 central budgetary institutions, including institutions such as the Telecommunication, National Wine Qualification, and the Printing Industry Quality Control Institute. In addition, over 30 extra-

budgetary funds received earmarked revenues and payroll contributions. Earmarking for extra-budgetary funds may be permissible in some instance (for example, funding pensions out of payroll contributions), but the implicit (and in the case of social security explicit) government promise to bail out the funds from the central budget if needed makes it very difficult to establish sound incentives in extra-budgetary fund management.

3. Similar fiscal decentralization was also present in the local governments. In a nation of 10 million, more than 3,000 local governing bodies operated more than 13,000 local budgetary institutions. Most local government agencies were strongly dependent on transfers from the central government, but enjoyed very broad autonomy in the use of these transfers. In addition, local governments were subject to no legislative limits on their ability to borrow either domestically or abroad.

4. Governmental Resolution No. 2189/1995 (VII.4.) and an amendment to the 1992 Law on Public Finances created the necessary legal background for the introduction of the treasury system in 1996. The 1997 development tasks for the treasury system were specified by Government Resolution No. 2189/1996 (VII.6.).

5. Governmental Resolution No. 2189/1995 (VII.4.) says that "from 1998 the organizational scope of the Treasury shall be extended (depending on local government and financial regulations) to local governments."

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14 Wages and Employment in the Public Sector

László Herczog, Gábor Kézdi, and Barbara Nunberg

The rationalization of government employment and remuneration in light of redefined state responsibilities has been a critical aspect of the reform process in Hungary. Total public employment has declined from a high of 913,069 persons in 1993 to 814,000 in 1997 (see chapter 5, table 5.2). In the first section of this chapter, the structure of public employment is examined. Disaggregated data by type of employment status and by sector are available for 1995 only. In the second section, the remuneration and incentives provided to public employees using survey data for 1986 and 1996 are analyzed. The incentives in force for state employees play an especially important role in the face of increasing private-sector competition for valuable skills.

STRUCTURE OF PUBLIC-SECTOR EMPLOYMENT

To grasp the full dimensions of government employment in Hungary, the different employment groups that constitute government need to be identified. Aside from the employees of state enterprises, there are essentially three categories of government employees: civil servants, public servants, and a heterogeneous "other" category. The civil service includes employees of central government ministries and agencies and their deconcentrated bodies, as well as county and local government employees, all of whom are regulated by the Civil Service Act of 1992.

In 1994 the civil service represented about only 12 percent of general government employment (table 14.1). Approximately 60 percent of these civil servants were employed at the central government level, with one third in core ministries and central budgetary institutions[1] in Budapest, and the remainder in regional and local offices of central government; 40 percent were employed in local government administrative organs. A large minority of central government civil service workers, 29.2 percent, were employed in central administration. Over half, or 56.7 percent, were in deconcentrated organs and regional offices,[2] while 12.3 percent were in the local offices of state administration. The remaining 1.8 percent

Table 14.1 ***General Government Employment, 1991-94*** **(in thousands)**

Type of employee	*1991*	*1992*	*1993*	*1994*	*1994 (percentage)*
By category					
Public servants	--	--	650	648	71.6
Civil servants	--	--	108	105	11.6
Central	--	--	64	63	7.0
Local	--	--	44	42	4.6
Other	--	--	155	152	16.8
By economic sector					
Research	13	11	10	9	1.0
Administration	215	240	270	270	29.9
Education	302	294	301	300	33.2
Health	274	262	252	246	27.2
Culture and sports	43	40	39	38	4.2
Other	53	41	41	41	4.5
Total	900	888	913	904	100.0
Population	10,355	10,337	10,410	--	--
Labor force	5,304	4,796	4,352	4,136	--

-- Not available.

Note: There is a 1,000-person discrepancy between total employment by category and total by economic sector in 1993 and 1994.

Source: Ministry of Labor, Central Statistical Office.

were distributed among non-executive government, such as Parliament and the State Audit Agency.

By far the single largest employment group in government is the public service, which includes teachers, health-care workers, and other service providers primarily employed by local authorities. Public-service employment, regulated by the Public Service Act of 1992, made up more than 70 percent of general government employment in 1994. Education and health workers are the largest component of the public service, representing 60 percent of general government in 1994. The "other" 17 percent of general government includes judges and prosecutors, the military, police, civil defense service, fire service, border guards, customs and finance guards, and the national security services. A separate statute that

Table 14.2 ***Public-Sector Employment in Hungary, 1985-1995*** **(selected years)**

Sector	*1985*	*1989*	*1992*	*1995*
Public administration	227	258	311	316
Health and education	573	637	548	568
Public sector	800	895	859	884
Private sector	4,103	3,914	3,237	2,780
Total	4,903	4,809	4,096	3,664

Source: Central Statistical Office.

establishes specific pay and employment conditions regulates each of these groups. To analyze recent trends in public employment and place Hungary in an international context, it is useful to examine in detail developments in two branches of the public sector: public administration and the health and education sectors.[3] Employment in public administration, health, and education rose 10 percent from 1985 to 1995, while private employment fell by 32 percent in the same period (table 14.2).

The effects of these trends on the ratio of public employment to total employment are summed up in table 14.3.

Table 14.3 ***Public-Sector Employment in Hungary as a Percentage of Total Employment, 1985-1995***

Year	*Public administration*	*Health and education*	*Public sector total*
1985[a]	4.6	11.7	16.3
1986	n.a.	n.a.	n.a.
1987	n.a.	n.a.	n.a.
1988	n.a.	n.a.	n.a.
1989[a]	7.5	14.4	21.9
1990	5.9	13.0	18.9
1991	6.2	13.7	19.9
1992	7.6	13.4	21.0
1993	7.8	15.3	23.1
1994	8.6	15.4	24.0
1995	8.6	15.5	24.1

n.a. Not available.

a. Employment data for 1985 and 1989 are not directly comparable with those from 1990.

Source: Central Statistical Office.

Stagnant public and declining private employment led to a significant increase in the public-employment ratio, from 19 percent of total employment in 1990 to 24 percent in 1995. The increase between 1985 and 1989 was of the same magnitude (from 16 to 22 percent), but could be attributed to an increase in public, and a decrease in private, employment.

Among Central and Eastern European countries, Hungary has the largest public sector (table 14.4), with a ratio of public to total employment above 24 percent. Only Slovakia's ratio is similarly high, at more than 20 percent, while public employment is more than one fourth less in the Czech Republic and Poland.

Concluding anything based on such aggregate measures is not possible. Redundancy in employment is extremely difficult to detect on this basis, for example. But what these comparisons do suggest is that, to the extent overstaffing exists in Hungary, it is more likely to be found in the public service than among civil servants in the central administration.

A deeper examination of employment patterns in education, for example, strongly suggests redundancy in this sector of the public service. There are an estimated 290,000 employees in the education sector, including kindergarten through secondary and higher-education levels. About 95 percent are government employees; an estimated 69 percent are teachers, and the remaining 31 percent assistants. According to Ministry of Education estimates, the level of redundancy here may be as high as 15 to 20 percent; Ministry of Finance estimates run even higher, at 25 to 30 percent (World Bank 1996). If such a degree of overstaffing actually exists, it may stem, in part, from the steady decline since 1982 in the below-15 population and accompanying fall in school enrollment rates.[4]

Table 14.4 ***Public-Sector Employment in Central and Eastern Europe as Percentage of Total Employment, 1995***

Country	*Public administration*	*Health and education*	*Public sector total*
Hungary	8.6	15.5	24.1
Slovakia	6.4	14.7	21.1
Czech Republic	5.5	12.1	17.6
Poland	4.6	13.0	17.6
Romania	5.0	7.0	12.0

Source: Commission of the European Union (1995). The data represent second quarter of 1995.

At the same time, the degree to which education employment would be amenable to central directives remains unclear. The responsibility for staffing schools lies not with the ministry, but with local authorities. Teacher salaries are financed through central-local transfers, conveyed in bloc form according to norms set out in the Law on Local Government. These funds are generally supplemented by additional local funds to cover the full wage bill. Thus, central prescriptions for employment levels in the sector (with the exception of higher education, which is a federal function)[5] can operate only through the manipulation of staffing or class-size norms for funds transferred to local authorities.

Health is another major public-service sector that may harbor excess personnel. Organizational inefficiencies in the health delivery system, such as a surplus of highly labor-intensive hospitals and the inappropriate use of hospitals for non-acute care, may account for some redundancy. This is borne out by staffing ratios, which at 33 physicians and 101 beds per 10,000 population, exceed European Union norms of 25 doctors and 90 beds per 10,000. Estimates suggest that restructuring the hospital system would yield personnel reductions of 14,000 to 15,000 (of an estimated total of 250,000 health and social service public employees). Further reductions might result from a program of policy and management actions, including, among other things, reforming financing arrangements for hospital care; restructuring facilities at local, regional, and national levels; and enhancing the managerial autonomy of health facilities (World Bank 1996).

Although central government redundancies are not easily identified through aggregate analysis, there is a real likelihood that surpluses exist even in parts of central administration, particularly in light of the altered missions of individual agencies. The merger of the Ministry of Foreign Trade into the current Ministry of Industry and Trade, for instance, produced approximately 300 redundancies among the 1,100 employees of the two agencies. A combination of retirements and involuntary separations was used to achieve the reduction in force.

One potential route to further downsizing across government, especially in view of the large concentrations of older employees in all areas, would be to encourage early retirement. Because salaries are largely a function of years of service, targeting older employees for retirement would have the advantage of reducing the wage bill even more than it reduced employment. There are costs to such a program, however, to the extent that experienced personnel are lost to the system. That older staff

are indeed still in demand is evidenced in anecdotal reports of personnel being employed as senior advisors well past retirement age. Such employees continue to receive their pensions, but can be paid for active service as well. In all likelihood, these pensioners are willing to accept lower wages and therefore represent a low-cost, high-benefit option for employers.

Another way to determine overstaffing is to analyze the managerial structure of government. An examination of Hungary's civil service personnel structure, for example, suggests the need for selective staffing rationalization. One impression that emerges is that government is top heavy. In central administration, for instance, almost 17 percent of employees occupied senior leader (presumably managerial) positions in 1993, yielding a ratio of about six employees to each higher official; this modest ratio of employees to managers may indicate surplus at the managerial level. The problem seems less acute at the regional and local levels, however, where, at a little more than 10 and more than 18 employees per manager, ratios are considerably higher.[6] And, the strong possibility that the large number of managers in central administration is merely a response to the rigidity of the remuneration system cannot be discounted: appointments to managerial ranks would permit salaries more competitive with those in the private sector, helping agencies retain valued employees. This concern, as will be shown, also plays a role in other personnel practices, such as the maintenance of artificially high vacancy rates to free resources for bonuses and other incentives.

Among ministries, manager/staff ratios varied widely.[7] The Foreign Ministry reported the highest ratio, with over 8 employees per manager; at the other extreme was the Ministry of Finance, with a ratio of 3:1. The Ministries of Agriculture, Environment and Regional Development, and Social Welfare all had ratios under 5:1. If these genuinely reflect staffing allocation rather than indirect remuneration mechanisms, ministries with particularly low staff/manager ratios merit a careful look to determine whether such allocations are justified. Again, ratios in deconcentrated government stand in some contrast to those found at the central ministerial level; a detailed ministry-by-ministry breakdown shows fewer managers per employee in the deconcentrated sphere. Ministries with significant numbers of deconcentrated staff reported ratios mainly between 10:1 and 13:1 for their territorial offices.[8]

Still another way of viewing the allocation of human resources is to examine the ratio of managers and professional and technical staff to support staff. Among the central ministries, ratios of managerial, profes-

sional, and technical staff to support personnel ranged widely, from 2:1 to 13:1 in 1993, with most ministries falling within the range of 4:1 to 6:1. This range may reflect more the size of administrative units than overall efficiency levels, however. The more numerous and smaller these units are, the greater the likelihood of a lower ratio of higher-level to support-level personnel. Deconcentrated ministry offices, again, tended to report higher ratios of upper-level to support staff than in the central offices, in most cases above 6:1.[9]

Vacancy rates and part-time employment in ministries offer additional insights into the personnel structure of the public sector. While authorized positions in core government ministries numbered over 6,600, less than 6,200 of these were occupied by full-time employees. The remaining 400-plus were employed part-time. If the latter were occupied on average half-time, they would be the equivalent of some 200 full-time employees. Thus, the ministries collectively employed about 6,400 full-time equivalents, implying a vacancy rate of around 3.5 percent. A similar calculation for deconcentrated employment yielded a comparable vacancy rate of about 3.8 percent. Part-time employment in local government administrations was higher, representing 5 to 6 percent of total employment. Over half of this total is to be found in decentralized civil service institutions. Almost half the part-time employees (around 46 percent) were manual workers; just over 16 percent were clerical or support staff, and some 35 percent were professional or technical personnel. Just over 2 percent occupied managerial posts. The 3.5-percent vacancy rate is about the same in other ministries. The significance of this figure lies in the funds that are thus released to finance bonuses and other fringe benefits to civil service employees. To the extent that part-time employees are not eligible for fringe benefits, moreover, employing the equivalent of 200 full-time employees in that capacity releases additional resources for benefits to those in permanent positions. Ministries deliberately manipulate vacancy levels and part-time employment to enhance the resources available for staff incentives.

The above analysis can be used to draw some initial conclusions about the structure of government employment in Hungary. One conclusion is that while general government employment is up slightly over the last four years of the transition, employment levels have by and large remained relatively stable. Is Hungary's government sector overstaffed? The answer must be cast in disaggregated terms. Taking general government as a whole, Hungary is at the middle-high range of the distribution for both countries of the Organisation for Economic Co-operation

and Development (OECD) and other transition countries. Looking at central government in particular, the Hungarian civil service is actually relatively small. Redundancy is more likely to be found in the public service. Indeed, further analysis of sectoral employment may well reveal considerable redundancy, particularly in the education and health sectors, where a significant reorganization of the provision of services could open the way to significant personnel reductions. Moreover, even for central and deconcentrated administration, the key question may not be overstaffing across the board, but rather misallocation among functions. This could mean, of course, that some functions are understaffed. Other indications of inefficient staffing patterns are the high ratios of managerial to other personnel in some ministries, suggesting that reorganization of smaller units into larger ones could result in economies of personnel. Finally, the current practice of manipulating vacancy rates needs to be considered in any revamping of the government employment system. This practice is part of agency strategies to release funds for salary supplements and bonuses. The employment of part-time workers serves a similar function. While such practices are less than desirable, enhancing incentives available to public-sector employees is a real concern, especially in response to competition from the private sector. Alternative mechanisms for pay flexibility would need to be introduced if the present ones were eliminated.

PUBLIC-SECTOR WAGES AND INCENTIVES

Government-employment and wage-bill issues cannot be fully understood without analyzing the nature and distribution of financial incentives to individual government employees. These incentives determine, in large part, the ability of government to attract, retain, and motivate quality personnel. This section examines in greater detail wages for civil and public servants. Using 1986 and 1996 data from large cross-sectional surveys, trends in public-sector earnings are analyzed, then followed by a concluding discussion of strategies that might help mitigate distortions in remuneration practices.

A comparison of civil and public service salaries yields a mixed picture.[10] Compared with earnings of civil servants in the central administration, those of public servants are clearly lower. Since most public servants are located outside the capital and paid by local or country authorities, however, they are more appropriately compared with civil servants in deconcentrated offices. For professional and clerical workers at the deconcentrated level, civil and public service salaries are roughly

the same, although there are exceptions. Manual workers, by comparison, fare on average 40 percent better in the civil than in the public service.

Both civil and public sector wages are compressed, but salary compression is greater in the public service. For the civil service, the official basic salary scale provides a theoretical ratio between a department manager and the most junior clerical worker of 7.5 to 1. The actual compression ratio for 1994, incorporating (mainly across-the-board) non-wage supplements that further flatten the wage structure, is a more compressed 5.9 to 1.

Within civil service classes, the basic salary differential between the highest and lowest salary class varies substantially, with the professional classes showing the greatest salary compression. University graduates can look forward to a theoretical maximum basic salary at the end of their careers equal to only 2.6 times their entry salary. For secondary school graduates this ratio is smaller, at 2.2, while for clerical and manual workers the ratios are larger, at 3.4 and 3.9 respectively. Again, actual salaries are even more compressed; compression ratios in 1994 ranged between 1.5 and 2.0, indicating that the highest paid members of each of the four civil service classes earned, on average, no more than twice the amount earned by the lowest-paid members of each class.

Salaries for the public service are even more compressed than for the civil service. In 1994, the actual salary differentials between senior leaders and the most junior member of the lowest category (A) was almost 5 to 1. As in the case of the civil service, salary differentials within public service categories vary. Theoretical compression ratios for basic salaries ranged from 2.3 at the bottom to 1.4 at the top; actual salaries in the lower categories are in fact more compressed, in part because the base wages of some grades have been raised to the level of the national minimum wage. The salary compression in the public service may have been alleviated to a certain extent by the creation of a wider range of salary classes in the 1997 amendment, but it is still too early to judge the effects of this change.

In investigating trends in public-sector remuneration, the analysis is restricted to public administration, health, and education.[11] The public (that is, primary and secondary) education and higher education are treated as distinct branches because of the differences in their observed trends. While there are many similarities in the recent development of remuneration in these branches, the trends do diverge in several key ways.

The analysis concentrates on total salaries, rather than monthly wages, to explore the trends in total work compensation. Of course, non-monetary benefits can play a very important role in compensation, and their magnitude can differ greatly in the public and private sectors. However, only speculative arguments can be used for estimating their effects, because no data are available. This question is returned to later. The following section focuses on measurable trends. Since the focus is on the story of the whole transition, detailed analysis is provided for long-term differences between 1986 and 1996. Of course, this strategy leads to large simplifications, as the transition process produces many short-term changes. At the same time, results of the whole period are better captured by comparisons of two, more or less stable, points at the ends of the period. Nonetheless, it is useful to take an initial look at year-to-year changes in public-sector remuneration (table 14.5) before turning to the subsequent analysis.

On the eve of political transition, public-sector earnings rose substantially (12- to 28-percent real growth), while the rest of the economy faced a more modest increase (9 percent). The relative positions of public sectors remained surprisingly stable after 1989: the 1989-96 decrease in higher-education earnings was 27 percent, and the other three public sectors all experienced a 24-percent loss. In contrast to the trends within the public sector alone, comparisons of public- and private-sector compensation reveal a different trend since 1989 (table 14.6).

Table 14.5 ***Real Salary Dynamics*** **(1986 = 100)**

Sector	*1986*	*1989*	*1992*	*1994*	*1995*	*1996*
Public administration	100	124	117	123	113	94
Public education	100	112	104	112	93	85
Higher education	100	128	107	119	102	93
Health services	100	113	102	111	91	86
Private sector	100	109	104	113	100	98
Employees, total	100	110	104	114	99	96

Note: Real salary = total work compensation, deflated by average consumer price index.
Source: National Labor Center (see Kertesi and Köllő 1997).

Table 14.6 ***Public-Private Earnings Comparisons*** **(private sector = 100)**

Sector	*1986*	*1989*	*1992*	*1994*	*1995*	*1996*
Public administration	101	114	113	109	113	96
Public education	94	96	94	92	88	81
Higher education	104	121	107	109	107	99
Health services	92	95	90	89	83	80

Source: National Labor Center (see Kertesi and Köllő 1997).

The transition itself produced a serious decline of public—compared to private—wages. The trend was continuous for the whole period (with the exception of temporary gains in public administration in 1995). Employees in public administration and higher education were more successful in keeping their position until 1995, but in 1996 their 1989 relative positions were re-established.

The overall figures, however, hide very different employment structures. Public administration, education, and health services are all human capital-intensive sectors, relative to the competitive branches of the economy. In addition, the transition resulted in a robust growth in returns to human capital in the whole economy: the ratio of average earnings in the upper- (at least college) and median-education level (vocational school) increased from 146 percent in 1986 to 220 percent in 1996. Measuring human capital is not without serious problems, and using education level is the simplest, but not obviously the best, solution. Human capital acquired at the workplace (learning-by-doing or on-the-job training), different human capital depreciation paths in education categories, or different returns in different occupations cannot be captured by education level. For the purposes here, this very simple solution suffices, however, as it reveals the basic differences in trends for the whole economy and for the public sector.[12] Table 14.7 contains the above public-private comparisons, but instead of providing whole sector averages, comparisons are given for groups by education level.

Table 14.7 ***Public-Private Earnings Comparisons by Education Level*** **(private sector = 100)**

	1986			*1996*		
Sector	*0-11 Classes*	*Secondary*	*Higher*	*0-11 Classes*	*Secondary*	*Higher*
Public administration	73	88	90	76	84	63
Public education	70	84	75	65	63	42
Higher education	80	87	77	71	61	53
Health services	80	80	98	78	70	55

Source: National Labor Center (see Kertesi and Köllő 1997).

The processes that led to the observed changes in sector averages were the result of trends in returns to human capital and of education-level composition changes. The serious depreciation of public-sector-related human capital, relative to the competitive sector, should have resulted in a larger decline of public-sector average earnings than the observed one. The trends that interfered with the effects of these processes require more detailed analysis.

The effect of changes in human-capital composition and earnings can be separated by a simple decomposition model (see appendix). The change in public-private average wage difference can be attributed to four distinct components, each measuring *ceteris paribus* (other things being equal) effects of structural and relative changes in earnings.[13] First, overall growth in returns to human capital would have raised the average earnings in public sectors relative to the rest of the economy, as public employment is far more human-capital intensive. Second, only overall changes in human capital stock in the economy (that is, changes in the composition of employees from demographic trends and massive unemployment of less educated in the competitive sector), would have a moderate effect on intersector earnings differences, because these trends have not significantly changed the human capital stock of the economy in comparison to the intersector differences. Third, public-private differences in returns to human capital would have, *ceteris paribus*, widened far more the observed average earnings gap. And fourth, changes in human capital composition differences alone would have raised the public administration-private sector difference because of the shift toward less-educated categories in the administration, but somewhat lowered the gap for the other three public sectors, because of reverse trends.

Table 14.8 ***Results of the Decomposition Model: Human Capital-Related Changes in Public-Private Real Earnings Differences between 1986 and 1996***

	Average effects, in the percentage of relative total earnings difference changes[a]				
Sector	*Overall changes in HC returns*	*Overall changes in HC stock*	*Sector-specific changes in HC returns*	*Sector-specific changes in HC stock*	*Relative total earnings difference changes*[a]
Public administration	24	0	–19	–11	–6
Public education	29	–6	–45	6	–16
Higher education	28	–1	–29	–2	–4
Health services	10	–2	–24	–1	–16

a. Change in public-private real earnings difference between 1986 and 1996 expressed as a percentage of 1986 competitive earnings; other variables held constant.

Source: National Labor Center (see Kertesi and Köllő 1997).

Human capital produced the lowest returns in public education in 1986, and has also suffered the largest depreciation (table 14.8). The 45-percent loss decreased the public education/private-sector salary rates from 75 to 42 percent among the most educated during 1986-96, but this trend was balanced in two thirds by the overall rise in returns to human capital. In other words, while most educated employees in the private sector earned 1.6 times more than average in 1986 and 2.5 in 1996, primary- and secondary-school teachers experienced a decline from 1.2 to 1.04. The effects of human capital stock changes indicate that the composition in public education has changed in line with the average, so the observed 16 percentage-point widening of the private sector/public education earnings gap can be attributed fully to relative devaluation of teachers' human capital.

The same is true for health services. Physicians earned 56 percent more than the average in 1986, and this difference declined to 38 percent in 1996, while less-educated medical employees earned 85 percent of the average in 1986 and 80 percent in 1996. The gap widened significantly, from 8 to 20 percent between health services and competitive sectors. This mainly resulted from the devaluation of physicians' activity.

Processes in higher education are different. The lowest decrease in relative average earnings among public sectors can be attributed to the fact that college and university teacher salaries fell behind the most educated employees in private sector, but did not fall behind the economy's

average: they earned 1.2 times more than the average Hungarian employee in 1986, while this ratio was 1.3 in 1996.

The story is almost the same for the public administration, where changes in returns to education level somewhat decreased the average public-private earnings gap. But, interestingly enough, significant shifts can be observed in human capital composition of the sector: the ratio of higher-educated employees fell from 31 to 26 percent, with a similar decrease in high school-level employment. This change led to the 6 percent widening of average earnings gap.

Teachers in higher education and educated employees in public administration are closer substitutes for private employment than public school teachers or physicians. In a competitive environment, this fact would result in a narrower earnings gap for the former—and the findings are partly consistent with this prediction. Public-private salary differences were three times greater for primary- and secondary-school teachers and physicians, in absolute value, compared to educated employees in public administration or higher education. While more educated public-sector employees suffered huge losses in their earnings positions, the same is not true for less-educated groups (or, for public and higher education, the loss was less significant). This fact also supports the interpretation, as sector-specific human capital can play a minor role in less-educated employee (for example, administrative or maintenance occupations) productivity. If it is thought that transition led to a closer relationship between productivity and earnings in the private sector, these trends can be interpreted as revealing substitution relations among occupations. The immediate consequence of this interpretation is that that the processes setting public-sector salaries are not completely resistant to labor-demand structural changes despite the lack of ownership and output competition.

But how close a substitute for each other are public and private employees? The earnings comparisons show that less-educated public-sector employees earned 65- to 85-percent, and the most educated earned 40- to 65-percent, less then comparable employees in the private sector in 1996. These large groups contain many occupation types, so direct comparisons are usually misleading. Of course, public-school teachers and medical workers have only modest chances of finding employment out of their sectors. But higher-education and public-administration occupations also can be different from this point of view. Table 14.9 shows some wage trends in comparable occupation groups in public administration and the private sector.

Table 14.9 ***Relative Salary Positions of Certain Occupations in Public Administration and the Private Sector, 1986-1996*** **(economy-wide average of the year = 100)**

	1986		*1996*	
Occupation	*Public administration*	*Private sector*	*Public administration*	*Private sector*
Chief executives[a]	191	208	243	379
Business administration[a]	148	148	180	234
Higher-educated administrators[a]	138	147	173	221
Lower-educated administrators[b]	82	105	108	121
Administrative occupations[b]	78	83	89	93

a. With higher education level.

b. With secondary-school education level.

Source: National Labor Center (see Kertesi and Köllő 1997).

The above figures tell the same story as simple education-level comparisons. In most human capital-intensive occupations, public-sector earnings have increased a lot, but have lagged private trends. The first lines in table 14.9 suggest (but, of course, do not prove) that the more important a role human capital plays in productivity, the larger the observable depreciation in public earnings.

The effects of observed trends can be estimated using several assumptions. If the focus is on monetary work compensation only, depreciation of sector-specific returns to human capital should result in decreasing human capital stocks in public institutions within education-level groups. That is, if returns to knowledge are larger in the private sector, qualified people will choose private employers (in substitutable occupations, for example, some higher-education teachers), or talented young people will not choose schools providing devalued knowledge (for less-substitutable occupations, such as public school teachers). These processes will obviously result (in the short run for the first, or in the long run for the second group) in less-qualified public-sector workers.

But if non-monetary (or non-observable monetary) components of worker compensation are turned to, other effects also should be considered. It has been seen that physicians experienced a significant devaluation of their salaries, although their occupation is one of the most knowledge based. In addition, few private employment possibilities are open to doctors. At the same time, no significant decrease can be observed in medical-school student human capital stocks (measured by entrance

scores required by schools). These facts indicate that returns to physicians' human capital did not decrease much, so the observed salary decline was balanced by other benefits. Illegal direct patient-doctor payments are very well-known in the Hungarian medical system, and similar opportunities obtain in other public services. Compensating differences can narrow public-private differences in earnings, and speculative arguments can reveal important possibilities.

We have no reason to suppose that public-sector non-salary benefits given by employers (for example, official cars or welfare expenditures) exceed private ones, because these compensation techniques are the best ways to avoid taxes and other public charges, so profit-maximizing employers will use the cheaper compensating possibilities. Three other factors can compensate for salary differences: working conditions, work revenues besides major job, and illegal benefits.

It is clear that some public institutions require less effort and/or time (for example, school holidays), but these attributes are not the products of the last 10 years, so they could compensate for the gap of the 1980s but not for its widening. Civil- and public-servant special employment conditions guaranteed by 1992 acts aimed at providing compensating differences to balance the depreciation of relative earnings. But the significant results of these regulations were either irrelevant (firing obstacles) or discouraging (strict seniority rules) for the best-qualified employees, so they have not narrowed the gap.

Extra-work revenues can be relevant only in a few occupations. While some higher-education professors and physicians are involved in research programs or business activities, these opportunities do not exist for primary- and secondary-school teachers or, for most physicians, and employees in public administration are also seriously constrained in their activities.

Except for higher-education professors, significant rises in illegal benefits are then the only unmeasured factor that could provide compensation for relative salary losses. These benefits have two characteristics: they result from employee-client relations, and are not covered by taxes. Whether these transfers lead to direct efficiency losses by distorting competitive market outcomes (for example, regulation, public investment or public purchasing decisions) or not (for example, patient-physician payments), they result in central budget-revenue losses and serious moral problems. Obviously, one cannot estimate the effect of these compensations, and without empirical evidence it is not possible to judge whether

they can balance the effects of salary depreciation. In public and higher education, however, illegal benefits cannot play as important role as in health services, and a significant segment of employees in public administration do not have access to these benefits.

CONCLUSION

While competitive employment decreased by more than 30 percent during the transition, the number of public employees did not change a lot, and a very high (24 percent) public-employment ratio was reached in 1995. These trends (due to obvious budget reasons) led to decreases in public-sector salaries, so after gains in the last years of the socialist system, public employees have experienced serious losses in their relative positions. While the earnings of the most educated public employees have increased, the public-private salary gap has widened from 2 to 25 percent to 73 to 58 percent (occupations that were closer substitutes for private sector have suffered from less-serious relative losses).

In the face of increasing competition for scarce skills, the government has yet to develop effective systematic procedures for assuring the continued employment of employees with skills valued in the private sector. As a result, ministries have had to develop ad-hoc and informal arrangements to retain such employees.

Within the civil service, for example, one method for augmenting the earnings of valued personnel has been to secure for them remunerated appointments to the boards of directors of state-owned enterprises, thus potentially doubling their incomes. But this practice is subject to significant limitations. The Civil Service Law limits those in executive positions from participating in other income-producing activities (for example, lecturing, artistic expressions, editing, and other intellectual activities). Individuals who are appointed to company boards can often earn more than their superiors. Thus, managerial ranks are not easily protected from erosion. Another limitation of this response to skill shortages is that it may be short-lived. As firms in the public domain are privatized, such appointments will become increasingly difficult to obtain.

Ministries also have the option of paying an exceptional individual a "personal salary" that deviates from the officially established levels. "Personal salaries" have no upper limit, thus offering, in principle, a useful mechanism for targeting scarce skills. In practice, however, such arrangements are apparently extremely rare and difficult to effect. In both the civil and public services, the minister or agency director can also

confer honorary titles with exceptional salary status; these titles, too, appear to be highly unusual.

Ironically, the most readily available performance incentive, the annual bonus, does not appear to be widely used as a means of retaining valuable employees. Although systematic information on the distribution of bonuses has not been collected, it would appear that some (perhaps most) bonuses continue to be awarded universally, depending on available funds. These bonuses, as have been seen, are paid through the pool of discretionary funds, equivalent to the difference between authorized position allocations and actual posts filled.[14]

In the absence of successful strategies to retain qualified public-sector employees, the widening of the private-public salary gap is likely to have two major effects: an increasing ratio of less-qualified employees in public institutions, and/or an increase of the role of illegal benefits in worker compensation. As neither of these results is favorable from a social perspective, public-sector reform should consider significant changes in public-employment incentives.

APPENDIX: PUBLIC-PRIVATE SALARY DIFFERENCE DECOMPOSITION MODEL

Average earnings equal the weighted averages of education level earnings in all sectors:

$$W_p^{96} = \sum_i f_{pi}^{96} W_{pi}^{96} \quad \text{and} \quad W_c^{96} = \sum_i f_{ci}^{96} W_{ci}^{96} \text{ , where}$$

W = average real earnings in the sector
p and c = sector indices (p = "public," c = "competitive")
i = index of the schooling level category
f_i = i-th category weight in the sector
Upper indices (96 and 86) = year of observation.

The data are summarized in table 14.10.

Table 14.10 ***Real Earnings and Composition of Employment, 1986 and 1996***

	Real earnings (in 1990 forints)							
	0-11 Classes		*Secondary education*		*Higher education*		*Average*	
Sector	*1986*	*1996*	*1986*	*1996*	*1986*	*1996*	*1986*	*1996*
Public administration	6,903	7,270	9,473	11,774	14,544	19,098	10,264	12,031
Public education	6,662	6,168	9,079	8,874	12,051	12,641	9,610	10,205
Higher education	7,607	6,729	9,343	8,555	12,338	16,092	10,594	12,371
Health	7,657	7,412	8,634	9,768	15,755	16,767	9,338	10,063
Competitive sector	9,514	9,528	10,778	14,005	16,089	30,389	10,187	12,556
	Composition of employment (percentage)							
	0-11 Classes		*Secondary education*		*Higher education*		*Total*	
Sector	*1986*	*1996*	*1986*	*1996*	*1986*	*1996*	*1986*	*1996*
Public administration	29.4	37.7	40.1	35.6	30.5	26.7	100	100
Public education	28.9	27.1	29.7	18.1	41.4	54.8	100	100
Higher education	23.0	22.4	21.9	21.6	55.1	56.1	100	100
Health	50.5	44.1	32.7	36.8	16.8	19.1	100	100
Competitive sector	72.3	63.0	21.6	28.6	6.1	8.4	100	100

Source: National Labor Center (see Kertesi and Kölló 1997).

The following notation, for the two years (with upper indices 86 and 96), is used:

$$D^{96} = W_p^{96} - W_c^{96} = \sum_i f_{pi}^{96} W_{pi}^{96} - \sum_i f_{ci}^{96} W_{ci}^{96}.$$

The public-competitive wage difference, D can be decomposed in two ways:

$$D^{96} = \sum_i \left(f_{pi}^{96} - f_{ci}^{96}\right) W_{ci}^{96} + \sum_i \left(W_{pi}^{96} - W_{ci}^{96}\right) f_{pi}^{96}$$

$$= \sum_i \left(f_{pi}^{96} - f_{ci}^{96}\right) W_{pi}^{96} + \sum_i \left(W_{pi}^{96} - W_{ci}^{96}\right) f_{ci}^{96}$$

With these notations, decomposition of change between 1986 and 1996 earnings differences in the public and "private" (competitive) sector, ΔD can be captured by the following equation:

$$\Delta D = D^{96} - D^{86} = \left(W_p^{96} - W_c^{96}\right) - \left(W_p^{86} - W_c^{86}\right)$$

$$= \sum_i W_i \Delta D_{fi} + \sum_i D_{fi} \Delta W_i + \sum_i f_i \Delta D_{Wi} + \sum_i D_{Wi} \Delta f_i \text{, where}$$

$$D_{fi} = f_{pi} - f_{ci}$$

$$D_{Wi} = W_{pi} - W_{ci}$$

Δ denotes the change between 1986 and 1996.

In the decomposition model, one can choose between $2^3 = 8$ different weight-combinations (two-year combinations for the first two terms, two for the second two terms, and choosing the competitive for the first and the public sector for the second two terms as weight, or vice versa). Using one of the combinations of weights, the above are the abbreviations of the following terms:

$$\Delta D = \sum_i W_{pi}^{96} \Delta D_{fi} + \sum_i D_{fi}^{86} \Delta W_{pi} + \sum_i f_{ci}^{96} \Delta D_{Wi} + \sum_i D_{Wi}^{86} \Delta f_{ci}.$$

The first term of the decomposition captures the effect of the change in structural differences of the sectors, the second term captures the effect of overall relative wage changes of the categories, that is, the changes in returns to human capital, through the different composition of the sectors. The third term represents the effect of relative in-category relative wage changes of the two sectors, that is the change in differences of returns to human capital for the two sectors. Last, the fourth term captures the effect of overall structural changes in the economy. In some cases, the results are very sensitive to the choice of weights. For instance, very different magnitudes can be assigned to the "overall" wage shift between categories if one considers the competitive sector (index *c*) or the public sector (index *p*). While the absolute effects suffer from these problems, the sign and relative magnitude of the effects are much less sensitive to the choice of weight-combination. Table 14.11 shows the effect averages and standard deviations.

Table 14.11 ***Results of the Decomposition Model***

	Average effects, in the percentage of relative total earnings difference changes[a]				
Sector	$\sum_i D_{fi}W_i$	$\sum_i D_{Wi}\Delta f_i$	$\sum_i f_i\Delta D_{Wi}$	$\sum_i W_i\Delta D_{fi}$	*Relative total earnings difference changes*[a]
Public administration	24.2	0.4	-19.5	-11.4	-6.3
Public education	28.9	-5.6	-45.2	5.5	-16.5
Higher education	28.1	-0.9	-28.9	-1.9	-3.7
Health	10.3	-1.8	-24.0	-0.7	-16.1

	Standard deviation of effects, in the percentage of relative total earnings difference changes[a]				
Sector	$\sum_i D_{fi}W_i$	$\sum_i D_{Wi}\Delta f_i$	$\sum_i f_i\Delta D_{Wi}$	$\sum_i W_i\Delta D_{fi}$	*Relative total earnings difference changes*[a]
Public administration	14.1	2.4	13.2	5.4	6.3
Public education	26.8	6.7	27.1	5.3	16.5
Higher education	15.2	1.2	15.2	1.2	3.7
Health	8.3	2.1	8.5	0.4	16.1

a. Measured as the ratio of change in real earnings difference between 1986 and 1996 and 1986 competitive average wage (dD/W_c^{86}).

Source: National Labor Center (see Kertesi and Köllő 1997).

NOTES

1. Central budgetary institutions are dependencies of central ministries but operate with somewhat more autonomy than do core ministries themselves. Examples include the customs and tax administrations and the airport. In 1995 there were about 1,400 central budgetary institutions, excluding about 650 for defense. Sufficiently disaggregated information was not available to determine the exact employment status of these individuals. While most are likely to be public servants, some portion probably falls in the civil service or "other" categories.

2. Deconcentrated offices of central government organs exist at the county level. Each of 19 counties has approximately 37 deconcentrated offices or agents of the central administration. Considerable redundancy may well exist at this level.

3. The figures in tables 14.2, 14.3, and 14.4 are drawn from the Commission of the European Union 1992 and Commission of the European Union 1995. The published statistics are sometimes inconsistent, and it has not been possible to use the same set of data for all tables in this chapter. Therefore, sources of all data carefully have been identified. There are significant problems in comparing pre-transitional public employment data directly to 1990-95 statistics, because of changes in definition and coverage.

4. Redundancy may also be reinforced by the legal framework. The Public Education Law specifies only maximum class size (ranging from 35 to 12 students, depending on the level and type of course). Although actual average class sizes vary from 30 to 8 students, averages for each level appear to be high by international norms, suggesting some scope for downsizing (Papps and Sinclair 1995).

5. Even the central administration's direct intervention in staffing prescriptions at the university level has been challenged in a recent Constitutional Court decision that ruled that university autonomy regarding personnel was constitutionally inviolate.

6. See also table 14.4.

7. Calculations are based on 1993 employment data provided by the Ministry of Interior.

8. Social Welfare proved to be an outlier with 17:1. Figures include both regional and local deconcentrated employees.

9. The ratios of all other employees to manual workers were even more dispersed than in the case of support staff. Ratios here stretched from a meager minimum of under 4 employees per manual worker to nearly 32. Two ministries were in the low twenties, while seven others reported fewer than 10 employees per manual worker. Low ratios of both classes may indicate overstaffing or, again, fragmentation into too many administrative units. The ratios of other employees to manual workers were also higher at the deconcentrated level.

10. These comparisons are made using data collected prior to the 1996 amendment to the Public Service Law, and therefore are based on the six-category system (Salary Category A-F) then in force. In making these comparisons, it was assumed that Class I of the civil service is comparable to Categories E and F of the public service; Class II to Categories C, D, and, with some caveats, E; Class III to Category B; and Class IV to A.

11. Data from large cross-sectional surveys on employees' wages, other salary components, gender, age, education level, and occupation are used in the analysis. Six wage-tariff survey databases are available between 1986 and 1996. The data were collected by the National Labor Center (Országos Munkaügyi Központ) and contain 150,000-600,000 individual observations from middle and large firms and institutions (employing 10 or more people). Detailed description of these databases, correction procedures for sampling distortions, and statistics for the whole samples are to be found in Kertesi and Köllő (1997).

12. One-way analysis of variances within the sectors show that in the private sector 25 to 30 percent, and in the public sectors 30 to 75 percent of total sum of squares of earnings can be attributed to simple three-class schooling-level categories, without any consistent trend in these figures.

13. Traditionally, regression models are evaluated in a *ceteris paribus* framework. Dynamic comparison of average earnings can be decomposed by so-called dynamic Oaxaca-Blinder type methods also using regression equations.

Significant structural differences between groups in all sectors (by gender, region, occupation, or placement) would require complicated specifications with cross-product terms of right-hand-side variables, which would largely confuse the interpretation.

14. These funds could soon be under the control of the Treasury, eliminating this element of managerial flexibility. Ministry of Finance officials claim that under the new treasury system, similar allocations would be distributed to ministries periodically to pay bonuses, with the advantage that savings would accrue from accumulated interest that is foregone in the present system.

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15 Sorting Out Intergovernmental Roles and Responsibilities

Robert Ebel, István Várfalvi, and Sándor Varga

Two dramatic changes are taking place in Central and Eastern Europe. The first and most discussed, is the dismantling of the command economy inherited from 40 years of the dominance of the Soviet Union. It is economic decentralization that combines the movement toward free markets and integration into the global market place with the creation of a civil society in which citizens are free to associate politically and economically.

The second is the equally important fiscal decentralization of the public sector—the sorting out of the roles and responsibilities of governments. This transition is from a functionally single tier in which local governments functioned as agents carrying out the fiscal plans of the central government and its ministries to the assignment of roles and responsibilities among autonomous governments. The success of the economic revolution is inextricably tied to the success of the fiscal decentralization.

In all countries the structure of intergovernmental finances affects the degree to which the public sector can mobilize resources and promote allocative efficiency for the nation as a whole. In addition, for countries undergoing the transition from socialism, the structure of intergovernmental reform influences the conditions for macroeconomic stability, the provision of the social safety net, and the extent and pace of privatization (Bird, Ebel, and Wallich 1995).

If the fiscal decentralization process is done well, significant benefits can be gained in terms of reduced overall public-sector size, economic growth, lower cost of public services, and establishment of a system that the citizens can understand and control. However, if implemented badly, the efficiency and accountability outcomes can be perverse (Bird and Vaillancourt 1997).

Hungary is doing it well. Indeed, in many ways the country serves as a model for not only Eastern and Central Europe, but also other parts of the world that are sorting out fiscal power among central and subnational governments. Although the process is still very experimental, as fiscal

decentralization always is and will be, what has happened in the past five years is revolutionary.

LEGAL FRAMEWORK

Hungary was the first country in Eastern and Central Europe to reform its fiscal and intergovernmental systems. In the late 1980s it pioneered in replacing Eastern and Central Europe corporate and commodity taxes with a value-added tax and personal income taxes similar to those of Western Europe. Then, between 1990 and 1996, the Parliament enacted a series of reforms, addressing a catalog of issues any decentralizing nation must face: how many and what type of subnational governments should be established? Once established, how many of the tasks once performed by the center should be transferred? What revenue authority should be devolved, and should this authority be shared fully transferred? What type and amounts of assets should be transferred? Should the new local government be burdened by debt? And, still at the center of much of today's debate, should the system of new subnational governments have a hierarchy?

Again, Hungary was a pioneer, this time taking the lead (in 1990, with Poland) in enacting a fundamental law establishing local self government. Patterned after the Council of Europe's European Charter, the 1990 Law on Local Self Government established the framework for a modern, public sector (Bird, Ebel, and Wallich 1997). One of the first steps was to abolish the 1,523 local councils that had functioned as the agents for carrying out central governmental fiscal orders through a system of 19 county councils. Budapest enjoyed a special status as county and municipality, and, thus, was directly represented in the central government planning process.[1] Although the councils had some tax and fee authority, the level of spending was framed by "expenses-oriented" financial regulation under which local resources were adjusted to a centrally determined expense number with subsidies then defined as the difference between receipts and expenses. One important result was that the fiscal condition of a locality often depended on its ability to negotiate transfers from the center, resulting in a system of soft budget constraints. Moreover, local governments could be combined with other localities without their consent.

The Law on Local Self Government abolished the local councils and dramatically scaled back the responsibilities of regional bodies (the 19 counties). To replace the local councils, citizens were granted the right to

Table 15.1 ***Local Governments in Hungary*** **(January 1, 1995)**

Type of local governments	*Number of local governments*
Village municipality	2,931
Of this: villages under population 1,000	1,670
City	216
Of this: cities with county rights	22
Capital city districts	23
County local governments and capital city	20
Total	3,169

Source: Ministry of Finance.

create autonomous self governments. Driven largely by a political imperative to undo the old system, the local councils broke up into discrete units; there are now 3,169 local governments. For agglomerations of 50,000 or more, 22 "cities of county rank" have been established. Budapest was established as an autonomous municipality, although 23 general-purpose district governments (the boundaries patterned the local councils) were established within the city's boundaries (table 15.1).

The Law on Local Self Government was the first of laws that now frame the Hungarian intergovernmental system and lay out the terms of autonomy for local governments (including the capital city's 23 districts). The others (enactment year, as amended) include the laws on Local Taxes (1990), Elections of Self Governments (1990), Property Transfer (1991), Tasks and Authorities Competencies (1991), the Capital City and Its Districts (1991), Municipal Bankruptcy (1996), and Debt Management (1996). These laws do the following:

- Establish that local governments are no longer agents of the center and its ministries.
- Adopt the principle that local governments should be public-service entities with assigned tasks and local taxing powers, as opposed to the much-debated alternative of a business-type municipality under which local taxes would be supplemented by revenues from government-owned enterprises (Nyitrai 1997).
- Accept the general principle of subsidiarity—that public services should be supplied by the smallest unit of government that is administratively and economically capable—embodied in the European Charter.

- Establish sets of mandatory versus voluntary tasks to be carried out by municipalities.
- Accept the principle that the law can oblige municipalities to perform certain tasks, but that the relationship should not be one-sided and should be accompanied by some form of fiscal or other assistance.
- Define performance standards for voluntary tasks that are the responsibility of local citizens.
- Allow local taxing authority.
- Establish that local governments have ownership rights.
- Allow (indeed, encourage) local governments to enter into associations with one another.
- Detail a step-by-step process for municipal bankruptcy proceedings (including the authority for work outs to avoid potential bankruptcy).

The remainder of this chapter examines the features of the Hungarian reform in terms of the general parameters just listed and the major policy issues that are now the subject of debate. It first examines the functions of municipal governments, and then proceeds to a discussion of municipal budget trends and the municipal credit market. These discussions set the stage for the next section, which focuses on the issues that frame the Hungarian intergovernmental debate: strengthening own-source revenues, the implementation of the central government's major tool for achieving horizontal and vertical equalization (the normative grant), and the issue of whether there are too many local governments. The chapter concludes with comments on the agenda for reform as Hungary enters an era in which it discards the "transition" label.

FUNCTIONS OF LOCAL GOVERNMENT

Expenditures

The Law on Local Self Government (Chapter II, Article 8) assigns a set of mandatory and voluntary tasks (competencies) to municipal governments. The municipal government is obliged to provide safe drinking water, primary education, waste disposal, basic health and social welfare provisions, public lighting, and to maintain local public roads and cemeteries. It is also obligated to enforce the observance of rights of national and ethnic minorities. Other tasks—not all mandatory—include provid-

ing local mass transport, settlement development, snow removal, fire protection, and public security and the provision of cultural and sports facilities, housing, and public safety.

This allocation of spending responsibilities is, in concept, consistent with most well-functioning intergovernmental systems throughout the world. It also generally is consistent with the roles the local councils played as the center's agents under communism. But there are two fundamentally important differences between the old and the new, as made clear from the 1990 legislative debates. The first is the explicit recognition of the European Charter's subsidiarity principle as the vehicle for promoting economic efficiency and the allocation of resources. The second is the coupling of these assignments with laws on free elections as a mechanism for assigning accountability to the citizens and the officials they elect.

Moreover, there is a good deal of flexibility in the nature of service delivery. Thus, local governments are not limited to the mandatory and voluntary services lists, as they may take on any functions not specifically granted to another government. Moreover, a municipality may oblige a county to take over institutions with territorial duties.

In addition, even for those services that are mandatory, there is no attempt by the central authority to define either a minimum service-delivery requirement or how local services should be supplied. Thus, for example, in the city of Dunavarsany, the mandatory requirement to provide basic health services is met by the community contracting with family physicians to offer services as entrepreneurs in the community. The municipality provides an office and pays a basic fee to the physicians, but, beyond that, the payment relationship is between doctor and patient (Fox 1995).

Recurrent Revenues

The 1990 reforms also recognize the need to establish a system of local taxation as indispensable to provide for independent management of local governments. Provision is made for six types of recurrent revenues: central-local grants; sharing of centrally levied and collected taxes; social security fund transfers earmarked for health services; own-revenues, including certain taxes and fees; profits from entrepreneurial activities; and non-recurrent receipts from the privatization of housing transferred from the center to local governments. The details of the scope and nature of these revenues have been adequately addressed elsewhere (Bird, Ebel,

and Wallich 1995; Peteri 1997; Lutz and others 1997). The grant system, shared taxation, and own-source revenues are discussed below.

THE GRANT SYSTEM. There are three major types of central-local grants that taken together account for nearly two fifths of municipal revenues. The most important of these is the unrestricted, formula-based normative grant, which has ranged from 60 to 80 percent of total grants (table 15.2). Due to its flexibility, as well as quantitative significance, the normative grant receives most of the attention in fiscal policy debates.

Grant amounts, and all aspects of the formula (number, type, and amount) are negotiated annually. The amount is set each year in the budget act, and takes into account factors such as the central government's estimates of other central-to-local transfers and estimates of own-source revenue generation. The elements in the distribution formula—the "norms"—are based on number of units served by function (for example, per-capita measures based on students, persons, and inhabitants). This per-unit approach has the dual advantages of simplicity and transparency, minimizing the need for bargaining for grant funds between the center and the locality. The number of norms has changed over the years, from 12 in 1990, 27 in 1994, and 21 in 1997 (table 15.2). The values assigned to each norm are related to estimated service delivery costs, with an average norm:cost ratio of about 60 percent. Although many local officials tend to think of the norms as a form of earmarking—for example, if an amount is allocated on the basis 60,000 forints per kindergarten child, the funds should be spent on that activity—the key feature of the normative grant is that it is fully unconditional.[2]

The remaining grants are directed in a manner deemed in the national interest. The most important of these other grants are the class of targeted and addressed subsidies, both made for investment purposes. Closed-ended, the targeted grants are matching grants (normally 60 percent central, 40 percent local), allocated by the Ministry of Interior following a needs review. Although there is an excess demand for targeted grants, once awarded initially about 6 percent of the funds remain undistributed as municipalities either fail to make the match or prefer to use their money for other functions (Hegedus and Peteri 1997). To the extent that there are undistributed funds in the initial allocation, these funds may be re-allocated to other municipalities such as those determined to be in fiscal stress. During 1991-95 grants were directed largely to investments in water and sewer systems (63 percent), education (18 percent), and health and social facilities (19 percent).

Table 15.2 ***Local Government Grant Allocations, 1997 Budget*** **(HUF million)**

Shared personal income tax, used as grant	
Personal income tax equalization grant	18,998.00
villages: up to 7,037 HUF/cap.	
cities: up to 8,643 HUF/cap.	
Transfer to county local governments	6,558.60
321 HUF/cap.	
956.3 for regional institutions	
150 million HUF	
Grants to communal, administrative, cultural, and sport functions (HUF/inhabitant: 19,274)	1,842.00
County and capital city administrative, regional, defense, cultural, and pedagogical functions (HUF/inhabitant: 3,766.90)	360.00
General grants for villages (2 million HUF/village)	5,840.00
Municipalities in depressed areas (1,600/inhabitant)	2,679.00
Grants	
General (normative) grants	
Grants to communal, administrative, cultural, and sports functions (312 HUF/inhabitant)	3,268.30
Social welfare grants (3,500-10,500 HUF/inhabitant allocated by complex social indicators)	57,315.20
Child and juvenile protection (330,200 HUF/person)	6,647.00
Permanent and seasonal rehabilitation homes (246,900 HUF/person)	9,729.60
Daily homes for elderly (48,000 HUF/person)	1,697.00
Seasonal homes for homeless (102,200 HUF/bed)	428.90
Homes for handicapped (337,300 HUF/person)	7,257.00
Kindergarten (60,000 HUF/child)	22,046.10
Primary education in classes 1-6 (64,000 HUF/pupil)	44,235.90
Primary education in classes 7-8 (68,000 HUF/pupil)	15,441.80
Education in classes 9-10	17,068.40
primary, secondary school: 70,000 HUF/pupil	
vocational training school: 60,000 HUF/pupil	
Education in classes 11-13	17,550.30
secondary school: 87,000 HUF/pupil	
vocational training school: 60,000 HUF/pupil	
Training at schools	6,538.40
at classes 9-11 in special schools: 20,000 HUF/pupil	
at classes 9-11 in vocational training schools: 40,000 HUF/pupil	
classroom vocational training and special schools: 70,000 HUF/pupil	
classroom training in secondary school for training: 90,000 HUF/pupil	
practical training in special schools for training: 28,000 HUF/pupil	
Dormitories (126,000 HUF/person)	98,541.60
Special care with rehabilitation purposes (3 normatives)	5,148.40
Art training at basic level (40,000 HUF/pupil)	4,015.40
Other public education grants (13 normatives)	22,708.00
Childcare institutions (government decree)	1,800.00
Cultural services (157 HUF/cap)	1,643.00
Grants for theaters (individual allocation)	4,338.00

Source: Ministry of Finance 1997.

Addressed grants fall under the jurisdiction of the Parliament and various ministries and usually involve full central financing. Although there is generally no matching requirement, the funds must be used as directed by law (that is, for a specific project such as hospital or school construction, etc.) as the ministry directs. Here the mix has been largely for health and social facilities (73 percent), education (13 percent), and water and sewer (10 percent).

SHARED TAXATION. There are two shared taxes, each fully controlled and administered by the central government. The first is the personal income tax (PIT) collected from residents. Initially (in 1990), 100 percent was distributed to localities almost entirely on the basis of origin (place of collection). The local share then fell to 50 percent in 1991, 30 percent in 1994 and 38 percent in 1997. It will go to 40 percent in 1998. Throughout the nineties, an increasing amount was earmarked on an equalizing basis under criteria that fall outside the control of local government; for example, general grants for villages and for municipalities in distressed areas. Initially fully origin based, by 1996 the equalization share had grown to nearly a third of the local share. Plans are already in effect to continue this shift toward equalization using the PIT vehicle.

The administrative arrangements for distributing the local share of the PIT merit brief comment (Lutz and others 1997). The Tax and Financial Audit Office calculates the taxes based on returns filed by individuals and information filed by employers (not all individuals must file directly). Collected taxes are then distributed to localities through a set of administrative bodies that distribute the shares for each municipality based on the income-tax data provided by the tax office, a process that leads to a two-year lag between tax collection and distribution. This has the great disadvantage of eroding the real value of transfers (dramatically in the case of Hungary, see table 15.3), but a salutary effect for some municipalities of moderating the impact of significant downturns in economic activity.

The inflation-erosion effect is addressed by making compensating adjustments in intergovernmental grant policy, a practice that serves to emphasize the view that the shared PIT and the grant system generally work as a fiscal package.

The second shared-revenue source, the motor vehicle tax, is a fee on vehicles brought into a locality. Initially fully local, the revenues are now split evenly between the local authorities and the central treasury. Not to

be confused with the local fee on a transfer of motor vehicles (table 15.3), this is not an important revenue producer.

These taxes make a limited contribution to local revenues because of a number of (not mutually exclusive) factors: preemption of the local tax base by the central government (for example, the PIT and mandated property-tax exemptions); central limits on the tax rate (1.2 percent on the business turnover tax); the lack of tax-administration capability in all but the largest municipalities; and the operation of the grant system. These reasons will be addressed below. For now, it is important to note the constraints on local taxes. Because local governments operate in open economies—and cannot control the movement of goods and services or factors (for example, labor, capital) that flow across their borders—they must be cautious not to get too out of line on such things as business taxes with neighboring jurisdictions, which compete for jobs and residents.

OWN-SOURCE REVENUES. The Law on Local Self Government granted local authorities the power to raise revenues through taxes on business receipts, property, transient accommodations (for example, tourist taxes), and lump-sum communal levies on local residents (for example, tenancy rights or rental contracts) and businesses (average number of employees). It also authorizes fees on motor vehicle transfers (see above paragraph), on the acquisition of property, and for administrative duties. The tax authority is municipal. The acquisition and administrative fees are administered and collected by the county and as a rule, split evenly between the counties and the 22 cities and the central government.

What is noteworthy about these municipal taxes is that, taken as a whole, they simply are not very important for local budgets. At present, local taxes account for 11 percent of total local revenues, below that of most European neighbors (Poland, 26 percent; Romania, 17 percent; Austria, Denmark, and Finland, 50 percent; and France, 44 percent).

Moreover, although there are other taxes that might be considered potential candidates for the local own-taxation in Hungary, they tend to be either administratively unrealistic and, in some cases, an especially bad idea (for example, a local value-added tax); inconsistent with the directives of the European Union, of which Hungary is an associate member (for example, broad-based local sales taxes); or with limited revenue potential (utility surcharges).

Table 15.3 *Municipal Budget Growth, Hungary, 1990-97* (billion forints [HUF] and percentage change)

Receipts/ expenditures	*1990 HUF*	*1991 HUF*	*Percentage change*	*1992 HUF*	*1993 HUF*	*Percentage change*	*1994 HUF*	*Percentage change*
Current receipts								
Own revenue	62.0	67.4	9	91.0	106.0	16	126.3	19
Of which local tax		9.5		17.2	27.1	58	42.0	55
Asset sales		15.6		28.5	32.8	15	50.9	55
PIT	74.5	47.0	–37	63.0	49.0	–22	67.9	39
Vehicle tax				2.3	2.5	9	2.5	0
Grants	113.3	190.7	68	219.5	256.6	17	283.9	11
Of which: normative	74.0	148.6	101	169.8	214.8	27	221.7	3
Specific	39.3	42.1	7	49.7	41.8	–16	62.3	49
Social security transfers	50.6	67.1	33	80.8	91.6	13	117.4	28
Borrowing	5.1	4.8	–6	7.5	25.2	236	42.7	69
Other	7.1	3.9		23.4	39.3	68	57.8	47
Total receipts	312.6	396.5	27	516.0	603.0	17	749.4	24
Consumer price index change (percentage)	28.0		35.0			22.5		18.8
Expenditures								
Education	107.3	122.3	14	152.7	185.4	21	225.9	22
Health	16.5	74.2	350	99.2	121.7	23	150.2	23
Social assistance	18.3	22.2	21	50.4	37.2	–26	45.0	21
Housing and water	27.4	17.1	–38	13.3	24.9	87	39.9	60
Transport and communications		22.3		17.1	15.6	–9	18.3	17
Current expenditures	201.1	311.1	55	408.3	497.0	22	547.0	10
Capital expenditures	55.8	59.7	7	92.9	111.5	20	147.8	33
Total expenditures	256.9	370.8	44	501.2	608.5	21	694.8	14

Note: Other revenue includes other central transfers and company transfers. Methodology: Cumulative price change for 1993-97 (1993 base year = 100, then the cumulative price change + 100 x 1.188 x 1.282 x 1.236 x 1.180 = 222).

1995 HUF	*Percentage change*	*1996 HUF*	*Percentage change*	*1997 HUF*	*Percentage change*	*Percentage nominal change (1993-97)*	*Percentage real change (1993-97)*
146.6	16	206.6	41	238.5	15	125	–97
57.8	38	96.3	67	119.0	24	339	117
72.9	43	98.8	36	128.0	30	290	68
93.6	38	101.3	8	135.7	34	177	–45
2.5	0	7.1	184	8	13	220	–2
311.7	10	326.9	5	350	7	36	–186
232.6	5	231.7	0	257.5	11	20	–202
79.1	27	95.2	20	92.5	–3	121	–101
127.1	8	148.4	17	169.0	14	84	–138
19.7	–54	14.3	–27	17.4	22	–31	–253
39.5	–32	60.2	52	53.5	–11	36	–186
813.3	9	963.2	18	1100.1	14	82	–140
	28.2		23.6		18.0		
229.8	2	266.4	16	326.4	23	76	–146
152.1	1	173.6	14	197.0	13	62	–160
46.0	2	54.4	18	60.4	11	62	–160
42.7	7	42.8	0	50.8	19	104	–118
18.9	3	14.8	–22	18.0	22	15	–207
578.2	6	668.9	16	760.3	14	53	–169
136.1	–8	143.7	6	153.0	6	37	–185
714.3	3	812.6	14	913.3	12	50	–172

Note continued: Then subtract 187 from each of the percent nominal changes shown for 1993-97 (e.g., 125 – 187 = –62).
Source: Ministry of Finance.

At a practical matter, this leads to the conclusion that local governments are often restricted in practice to those taxes for which there is a linkage between the payment of a tax and service benefits received (user charges and taxes on property, personal income, business receipts, transient accommodations, and automobile use generally meet this test) and for which the tax base is largely immovable (this is the case for strengthening the property tax). Finally, for the efficiency and accountability benefits promised for fiscal decentralization to be achieved, elected local officials must have the authority to determine tax burdens at the margin (the levying of the next forint collected) and be in a position to do so. This fundamental feature of decentralization only requires the ability to set tax rates at the margin. It does not rule out a central role in defining the tax base or in tax administration.

Non-Recurring Revenues and Credit

There is a solid rationale for focusing on, and in the case of the central government, monitoring, the topic of municipal creditworthiness and the financial risks of local authorities. For a locality to develop economically (create private sector income and growth), it must incorporate into its fiscal planning process a public capital base (infrastructure) that complements and leverages private capital—by borrowing other people's money. This, in turn, demands a creditworthy jurisdiction.

There are three public-sector axioms that accompany this rationale: recurrent (operating) spending must not be financed with non-recurrent revenues as such a process is not sustainable; as the benefits of services from capital accrue over time and thereby benefit future generations, both equity (the tax-payment obligation) and efficiency (services matching benefits) require some debt financing; and, because it is ultimately responsible for the stabilization policy and for monitoring the fiscal viability of the local governments it has chartered, the central authority has a responsibility to regulate municipal borrowing and debt (bankruptcy laws may suffice).

At present, municipalities generate non-recurring revenues from two sources: sales of assets through the privatization of publicly owned enterprises, and borrowing. The relative share of asset sales has doubled since the early 1990s, and now accounts for just over half of current receipts. Borrowing, however, has been very modest, and except for one year (1993) has been 2 percent or less of total receipts.

The small size of the municipal credit market is largely attributable to the regulation that municipalities can use only own-sources of revenue

to service debts. This has limited debt issuance to the largest municipalities and the Budapest district governments. Although there are no legal restrictions on commercial banks (national or foreign) entering the municipal credit market, the National Savings and Commercial Bank (OTP) is the dominant player, holding 92 percent of municipal debt. This is, in part, a holdover of pre-reform days when the OTP was a monopoly holder of the current accounts of municipalities, a position it still largely holds today.

As of March 1995, the credit market was estimated at about 49 billion forints, with short-term loans (one year or less) representing about 65 percent of the market and medium- to long-term loans (three to seven years) accounting for the remaining 35 percent. Since total municipal capital expenditure was 148 billion forints in 1994, this suggests that the bulk of such spending was financed not by borrowing, but by recurrent revenues. This apparently fiscally conservative behavior reflects two features of the system: the short-term nature of most of the borrowing (even the "long term" of 7 years is short compared to Western standards), and the fact that municipalities, which are not yet able to accumulate capital, rely largely on national grants for capital spending.

At the same time, the numbers serve to highlight the relatively conservative behavior of municipalities. Despite widespread anxiety over municipal borrowing strategies (in 1995 four small municipalities approached bankruptcy), OTP lists only 1.5 percent of its municipal loans as non-performing. This is a much lower level than the norm for the banking system as a whole.[3]

MUNICIPAL BUDGETS

While the importance of the sector relative to the total economy increased from its 1990 level (spending equal to 13.8 percent of the gross domestic product [GDP]) to a decade peak in 1994 (17.1 percent of the GDP), it declined (14.9 percent in 1996) and is expected to fall to 11 percent by 2000). The reason for this decline has yet to be adequately explored, but the most plausible explanations are relatively larger growth in the private sector component of the denominator (the share of total government to GDP has been relatively constant), or a reduction in real expenditures of the sector.

Overall, the position of the local sector has decreased on both sides of the budget. When local government revenues are compared to cumulative price changes in recent years, there is clear evidence of a decline in

the local sector in real terms. The numbers are revealed in the far-right column of table 15.3, which provides the difference between the nominal percentage change in receipts and expenditure by type, and the cumulative price change.

What strength there is in the revenue system is largely attributable to receipts from the gross turnover tax on business receipts (see below), privatization of state-owned enterprises, and borrowing. Though both these components exhibit large percentage increases in both terms of actual revenues and share to total receipts (table 15.4), those increases reflect a low initial base.

Thus, the revenue story is three-fold. The first is the decline in the two largest central transfers, the shared PIT (down 45 percent in real terms during 1994-97) and the unconditional "normative" grant (which has declined by 200 percent). The second is the contribution of borrowing; but again, although the real percentage increase is dramatic (table 15.2), the total amount is not large (5.7 percent of total receipts in 1994). The other story, which is not directly revealed in, but clearly implied by, table 15.3 is the weakness of local efforts to generate any significant new own-source taxes. These three issues are discussed in greater detail in the next section.

A review of the expenditure side reveals that, in order to adjust to falling revenues, there have been across-the-board spending cuts, with the largest declines coming in transportation and communications, and the health and social sectors. When viewed in terms of recurrent versus capital expenditures, the overall story of declining real expenditures is repeated, with capital expenditures falling faster than current spending.

POLICY OPTIONS

Two themes emerge from the foregoing discussion. The first is a failure of local governments to mobilize own-source revenues. The second is the continuing importance of assessing the fundamentals of the emerging intergovernmental (central-local) relationships that have been well-laid out in statute, but in practice, still need substantial sorting out.

Within this context there are five closely related issues. The first three relate to the question of local tax revision (business turnover, PIT, and property tax). The other two are the structure of the normative grant and the size of local governments.

Table 15.4 ***Local Government Finance, Composition of Revenue and Expenditure, 1991-1997*** **(as a percentage of total)**

Receipts/expenditures	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Current receipts							
Own revenues	17	18	18	17	18	21	22
Of which, local tax	2	3	4	6	7	10	11
Asset sales	4	6	5	7	9	10	12
PIT	12	12	8	9	12	11	12
Vehicle tax	0	0	0	0	0	0	0
Grants	48	43	43	38	38	34	32
Normative	37	33	36	30	29	24	23
Specific	11	10	7	8	10	10	8
Social security transfers	17	16	15	10	18	15	15
Borrowing	1	1	4	6	2	1	2
Other	1	5	7	8	5	6	5
Total receipts	100	100	100	100	100	100	100
Expenditures							
Education	33	30	30	33	32	33	36
Health	20	20	20	22	21	21	22
Social assistance	6	10	6	6	6	7	7
Housing and water	5	3	4	6	6	5	6
Transport and communications	6	3	3	3	3	2	2
Current expenditures	84	81	82	79	81	82	83
Capital expenditures	16	19	18	21	19	18	17
Total expenditures	100	100	100	100	100	100	100

Source: Ministry of Finance.

Business Turnover (Receipts) Tax

The local business tax is the main own-source revenue for governments. Largely limited to non-retail business, the tax on non-financial institutions is based on net sales revenues of products sold and services, reduced by the purchase value of goods sold and value of services provided by subcontractors. For financial institutions the tax is on gross turnover—the total interest received in the case of banks (with a deduction

for interest paid) and, for insurance firms, total revenue with a deduction for claims settled. For all types of businesses the tax is apportioned by shares of business receipts for firms operating across local boundaries. The tax rate may vary by type of business, as long as it does not exceed the state-mandated maximum of 1.2 percent (or 5,000 forints per day in the case of occasional activities). Localities also may grant deductions and exemptions for various types of businesses.

There are few problems with respect to the tax. As noted above, it is consistent with the concept of benefits taxation. And, although there is probably some cascading of taxes—the repeated taxation of value created at earlier stages of the production and distribution process—the effect is probably quite minor in view of the low tax rate.

The one issue that merits consideration is the cap on the tax rate. As discussed above, with respect to taxes, the essence of fiscal decentralization is giving local officials choice in setting tax rates (but not necessarily the tax base). Thus, one option is to simply abolish the tax-rate cap and let localities experiment with rate changes. Under present circumstances the rate could probably be doubled without major distortions or effects on business activity. If this turns out not to be case—for example, if a locality raises the rate sufficiently to cause businesses to relocate investment to competing jurisdictions—then the tax-rate increase can be undone. What is important is to use this one local tax that now "works" as a vehicle for implementing the practice of local self government. At present plans are to ease up on the statutory cap.

Personal Income Tax Sharing

Several studies have recommended that the central government vacate part of the PIT base (for example, the non-equalizing component of the current locally shared tax) and let local governments take on the role of, and responsibility for, levying the local portion up to the vacated amount. Central vacating of the tax base is important for the obvious reason of the need to provide room for localities to maneuver without raising overall effective tax rates and undercutting the nation's overall strategies for private sector development and macrostability. Indeed, since not all localities would levy up to the vacated potential (the response of Budapest, which accounts for about half of all present collections would be important to watch), it is likely that this local "piggybacking" of the centrally defined, administered, and collected would lead to a reduction in the total effective tax rate.

Vacating/piggybacking fits the concept of fiscal decentralization as a mechanism for furthering the key national objectives of efficiency and accountability. Again it should be stressed that to move in this direction does not require either local tax administration or local control over the definition of the tax base (which, particularly in the case of administering and complying with tax-base sharing, would be another bad idea).

But, there are two caveats to giving localities tax rate-setting authority at this time. The first is technical. If PIT piggybacking is to be adopted as part of the Hungary's intergovernmental fiscal strategy, the manner in which the normative grant is distributed to localities would have to take into account the degree of tax effort (effective tax rate response) of each municipality. This point is addressed further below.

The second is more important: while piggybacking is, in concept an ideal way to promote more truly autonomous local governments, the timing is not right, and probably will not be right for another few years. This is true for three reasons. The first is one of sequencing. Recognizing that in practice the normative grant and PIT have developed as a package that provides flexibility to target central-local aid, for at least the next two to three years the central government should retain first claim on PIT revenues. Second, there is still a sorting out of subnational expenditure responsibilities to be made. For example, there is the matter of accession to the European Union, which operates through many regional (as well as local) directives, that may require policymakers to re-evaluate past decisions on which type of subnational government is most appropriate for an own-source PIT. And third, there is a more logical and appropriate tax base to develop—the property tax.

Property Taxation

There are two competing choices for defining the property tax base. The first is the currently employed area approach. The tax is based on parcel size and levied on a square-meter basis. The second is a tax based on the observed market value of real estate. In both cases, the tax liability rests on the property owner, or in cases of difficulty in identifying owners, the user(s) who have pecuniary rights over the property.

At present, there is almost exclusive use of the area approach. There are two such taxes.[4] The building tax is levied at 300 forints per taxable square meter net of several centrally mandated exceptions, both specific and institutional. The specific exemptions include, for every residential dwelling, a minimum exemption of 25-square meters per person for

family members permanently registered in the home. Institutional exemptions include those for social health, child welfare, and educational purposes, and various facilities associated with animal husbandry. A plot tax may be levied on unimproved privately owned land at a maximum rate of 100 forints per taxable square meter or 1 percent of adjusted market value. The institutional exemptions provided for buildings generally apply to the land tax. Similarly, the tax may be on the owner or user of the plot.

The alternative approach, which is widely used in modern market economies, is the *ad valorem* property tax. Both the tax base and tax rate are determined by the local government. Unlike an income or consumption tax, for which the base is identified by a flow of private economic activity, the property tax base, which is the stock of property value (thus wealth-based), must often be estimated when market transactions are unavailable. Therefore, transparent assessment procedures and a taxpayer appeal process must be integrated into the process.

At first glance an area-based tax would seem to pose fewer administrative problems than one based on market value, but, in fact, there is a great deal of complexity in Hungarian tax law. This is especially true for the building tax, which, rather than just being a straightforward measuring of parcel size, requires the local assessor to make building-by-building judgments on condition and use. These judgments go to such matters as internal height of interior walls, the degree to which a structure is enclosed, and its useful life. In contrast, the market approach involves a systematic and periodic process that allows (in fact, often requires) the assessor to avoid making parcel-by-parcel judgments. This is particularly true now that computer-assisted valuation technologies have been developed.

The efficiency test centers on the degree to which a tax facilitates (or inhibits) local economic development. The *ad valorem* approach tends to accomplish this objective by sending a tax-price signal of the value real estate will have in its "next-best," or alternative, use. As a result, property owners are periodically given information regarding the opportunity cost of their sites. This facilitates decisions with respect to parcel use. In contrast, the area approach fails to develop this key-opportunity cost information; it hides, rather than reveals, information that could generate economic change.

With respect to revenue production, the area-based approach is the inferior choice. This is because it is nearly devoid of the ability to reflect economic changes that occur in the local economy. That is, there is no

elasticity (buoyancy) built into the tax base. To generate real revenue growth, officials must routinely adjust the statutory tax rate. In contrast, the *ad valorem* tax has a great potential for tax productivity. If all Hungarian properties were taxed at a uniform rate of 1 percent of market value, which is about the international average for developed countries that use this tax, local government as a whole could generate annual revenues on residence alone equal to 1.3 percent of GDP.[5]

Normative Grant

The normative grant receives nearly unanimous high praise for its formula-based and unconditional character. But it is also criticized regularly for the fact that the formula is expenditure-capacity, rather than fiscal-capacity, or needs-driven; it promotes municipal fragmentation (too many small jurisdictions); and is too complex.

The policy choice is between a system under which grants are largely distributed according to capacity use (for example, number of care-days for the elderly, beds in institutions) versus one that is based on indicators of expenditure need, such as the number of "workload needs" (for example, the number of inhabitants in a jurisdiction), or on tax capacity (the potential to generate revenues given some average national tax rate).

It is argued that the capacity-use norm, while appropriate to the extent minimum service levels may be mandated by the center, is not fundamentally different from the system in pre-reform days that provided incentives to institutions to self-generate local demand, and, as a result, corrupts the record-keeping process as local officials inflate expenditure measures (for example, lie about the number of pupils in a school to qualify for larger grants) (Lutz and others 1997). A further result of the capacity-use approach is that the grant itself is still perceived as an entitlement due local officials. Moreover, because the normative directs some minimum amount of grant to small jurisdictions otherwise unable to build up enough capacity units to satisfy the statutory minimum, the grant is criticized for providing support to localities that efficiency requires should just shut down or voluntarily consolidate with neighbors.

Each of these arguments has merit. And, in principle, there is a solution—to move from a formula-based one to one in which funds are allocated on some measure of fiscal capacity. Fiscal capacity can be defined as the potential ability of a local government to raise revenues from its own sources relative its expenditure needs. Thus, it has both expenditure and a tax dimensions.

But it also may be argued that such an approach is overly complex, runs the danger of becoming highly non-transparent, and would probably not result in large efficiency gains. Accordingly, the Hungarian approach will be to maintain its norm-based system, while considering several ways for further development: a reasonable reconsideration of duties and competency in which the norms are less differentiated and their number is reduced, looking at the fundamental issues of government size and structure, and addressing equalization by decreasing fiscal disparities (widening of incomes) by providing incentives for municipal associations in taxation and services delivery.

SIZE OF JURISDICTIONS

There is little disagreement that there are too many small local authorities. More than half the local authorities have populations below 1,000—and 300 are below 200. Notwithstanding, each authority has been assigned nearly the same full set of duties as larger jurisdictions. The result is that many communities cannot meet what many consider a minimal standard of services, and if they tried, they would not be administratively able to do so.

There are several options to be considered to address this problem. One option is to follow the path many Western democracies have taken since 1960, which is to abolish and/or consolidate small units. In Sweden the number of localities has decreased from 2,500 to 278. Denmark merged 1,388 habitations into 275 localities. Similar situations took place in Germany (24,512 to 8,500 by 1980) and Belgium (2,663 to 589 between 1961 and 1980). Britain went even further, and has no local authorities in its villages, with the basic unit being the district with an average population of 120,000. Recognizing that the consolidation option may have some economic merits, it is, at present, politically not appropriate for Hungary. In 1990 there was a political imperative to give citizens control over local affairs, and that is the way it remains.

This leaves Hungary with two other options, each of which is being pursued. The first is to generally redefine the competencies among subnational governments, with an eye to assigning functions such as water supply, basic health and social services, and primary education to general-purpose regional governments (special districts are not permitted under Hungarian law). This not only makes sense in terms of the local public-sector principles of economies of scale, appropriate size benefit

areas, and administrative feasibility, but also conforms to the European Union's use of regional governments to carry out various union directives.

A second option is for the central government to provide incentives for intergovernmental cooperation and privatization in local service delivery. This is already happening through the design of matching grants to encourage cooperation; local government establishment of nonprofit organizations for purposes of delivering services; the granting of central transfers to non-governmental and non-municipal organizations (in 1996 non-governmental human service institutions received 8.5-million forints in normative subsidies); and the municipalities' own decision to cooperate (200 association of local governments already provide some common functions, not unlike special districts) (Hegedűs and Peteri 1997).

CONCLUSION

As Hungary proceeds along the path that it began in the 1980s in its transformation to market economic development and political union with its Western European neighbors, it must continue to effect often bold reforms in many of its economic institutions and relations. Among these, and, indeed, key to accomplishing most of its broad reform objectives, is the development of a well-functioning intergovernmental system.

Even though Hungary has been a model for other transition economies in laying out a basic legal framework for local self government and sorting out fiscal roles and responsibilities among different types of governments, there is still much to be accomplished. For these fiscal changes to be of interest to Hungarians in their dual roles as both national and local citizens requires that the process be fully transparent and consultative.

The remaining reforms include strengthening of local revenue systems (and, here, local officials must start taking on more responsibility), reconsidering the assignment of functions and authorities among different types of subnational governments (for example, local and county or other regional), and continued experimentation with the system of central-to-local fiscal transfers.

While these are all very important matters, they are not of equal urgency. A key purpose of this chapter is to suggest what the ordering might be. However, regardless of what set of priorities are established by the citizens, the reforms will often be complex and, in many circumstances, their outcomes uncertain. Mistakes will be made and have to be

undone. But, the successes will be far greater in number. To date, the Hungarian transition has been not only gradual and systematic, but also bold and creative. There is no doubt that this will continue.

NOTES

1. The special topic of Budapest is not addressed in this paper. For a discussion see Ebel and Simon (1995).

2. This misunderstanding of the normative as a series of earmarkings is reinforced by the practice of associating cost figures with each of the components of the formula.

3. Local governments may issue general obligation municipal bonds; however, the market is quite small. In addition, international financial institutions such as the European Investment Bank and the European Bank for Reconstruction and Development have extended lines of credits to municipalities. Furthermore, the central government has entered into bilateral loan agreements with many OECD countries, and these can be accessed by municipalities for infrastructure and environmental projects. This discussion of credits draws on Silva-Jauregui and Shapiro 1996.

4. Plus two types of local building fees on the transfer of property. For residential dwellings, counties levy a two-tier fee based on transfer value plus a recording charge. In the case of non-residential structures, there is single fee (also based on value) and a lump-sum registration charge.

5. Metropolitan Research Institute, Budapest, 1994.

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16 Constitutional Rights and the Reform of Social Entitlements

Jean-Jacques Dethier and Tamar Shapiro

The rulings of the Hungarian Constitutional Court, which overturned significant portions of the March 1995 economic stabilization program, provide a vivid illustration of the tension between economic reform and protection of individual rights. Nowhere is this tension more revealing than in the area of social entitlements. The Constitutional Court, created in 1989, has played—and continues to play—an important role in establishing the rule of law in the new democratic environment. By making its own factual findings, independent of the judiciary, and ensuring the conformity of laws with the Constitution, the court represents an important checks-and-balances mechanism, especially during a period of major social and economic transformations.

Because Hungary had a socialist regime for more than 40 years that did not emphasize, to say the least, individual freedom, it is understandable that the center of the court's preoccupation would become protecting the rights of citizens. In legal theory, these rights are traditionally divided into two seemingly neat categories: "negative rights," or individual liberties, and "positive rights," also called social rights. While the former category comprises the right not to be subject to illegal government interference, the latter comprises the right to demand certain actions or support from the government. Social rights entitle individuals to receive cash or in-kind transfers from the state, financed by contributions or taxes on the active population or enterprises, and typically include subsidized health care, unemployment insurance, aid for families, minimum income for the poor, subsidized education, and pension rights for retirees, widows, and orphans.

This chapter offers a case study of the interaction between public finances and constitutionalism. It reviews and comments on the doctrine of the Hungarian Constitutional Court regarding social rights. The first section introduces the issue of constitutional protection of social rights in modern welfare states, including transition countries. The second section describes the new constitutional order in Hungary, focusing on the role of the Constitutional Court; section three briefly summarizes the changes in welfare policy that took place during the transition period; and section four discusses the Court's evolving doctrine on social rights by analyzing

selected landmark rulings. Section five presents conclusions on welfare policy reforms and the constitutional protection of social rights.

THE CONSTITUTIONAL PROTECTION OF SOCIAL RIGHTS IN MODERN WELFARE ECONOMIES

The function of a constitution is to provide a framework for government, including defining the separate tasks to be accomplished by the legislative, executive, and judicial powers, and protecting individuals from possible abuses by the government itself. Enforcing these rules can be accomplished in different ways. In the American model, the Supreme Court is the final appellate tribunal in the judicial system and rules only on individual cases, in most instances without deciding fundamental issues. In the European model—to which most Eastern and Central European countries refer—the constitutional court's primary function is not to adjudicate controversies between individuals and their government, but to provide an interpretation of the constitution. The constitutional court stands apart from the rest of the state apparatus, including the judiciary, and is responsible only to the national constitution and the values it incorporates (Schwartz 1993). Constitutional control is therefore interpretive and abstract. Some new constitutions, including those of Hungary and Romania, allow review even of unimplemented laws. The review by the court is abstract in the sense that the court analyzes a law or decree per se, and not as it applies in a particular disputed instance. This has two important implications. First, the court cannot dismiss the issue it is presented with as moot, which burdens it with a heavy case load and, as Schwartz puts it, "continually plung[ing] constitutional courts into political controversies by giving standing to relatively small groups of legislators who have lost a legislative battle."[1] Second, the European model gives the court a very powerful role as social arbiter, as it is, in effect, entrusted with interpreting the letter and the spirit of the Constitution on behalf of the people. When welfare reforms are envisaged, when the executive branch proposes major changes to the legislature, the role of constitutional courts is significant. Since the court, in effect, manages the "legislatively generated expectations of the beneficiaries" (Sajó 1996), the social philosophy of the judges—the views they put forward on the extent of redistribution that should take place to insure against social risks, or to assist those in need—is crucially important.

Realizing how difficult it is to implement, under the constant threat of abstract norm control, comprehensive welfare reforms, Stephen Holmes and other authors have argued that transition countries need a

strong executive branch that can combine effectiveness and legitimacy in a context of rapid change to meet the complex and contentious challenge of reform. They therefore advocate "stop-gap constitutionalism"; that is, interim constitutions that leave some ambiguity as to the exact rules of the game and create room for a strong executive. They admit, however, that giving high levels of discretionary power to the state is not desirable for the constitutional order in the long term. Other authors, most forcefully Jon Elster, have argued by contrast that the success of economic reform depends as much on "designing an effective constitution as getting the prices rights." Joel Hellman, using regression analysis applied on data from post-communist countries, shows that high levels of executive power are negatively correlated with the success of economic reforms, and that the negative effects of executive power are worse in those countries that postpone their constitutions. Hellman concludes that "while not a precondition for economic reforms, constitutions do appear to contribute to the political capacity to adopt economic reform measures" (Hellman 1996).

Public sentiment gets translated into written constitutions, and constituents often enshrine the moral values shared by the majority in founding charters even though, as Cass Sunstein eloquently puts it, "there is a big difference between what a decent society should provide and what a good constitution should guarantee" (Sunstein 1993). The decades since the end of World War II have seen a dramatic move toward the inclusion of welfare rights in written constitutions (Glendon 1992). Many Western European countries have moved toward the acceptance of welfare rights as constitutional rights. The German constitution, for example, states that the Federal Republic is a social state, while the constitutions of France, Italy, Japan, Spain, and the Scandinavian countries all make reference to specific social and economic rights. Even the United States—long a staunch supporter of restricting constitutional rights to the right to be free of government intervention—has nonetheless begun to interpret positive rights as statutory "entitlements" rather than privileges. In Hungary, during the revision of the constitution in 1989, the Hungarian "founding fathers" embellished the articles related to social rights that had been incorporated in the 1949 constitution.[2]

But how enforceable are these rights enshrined in written constitutions?[3] The enforceability of social rights and their protection by courts is obviously a central issue. The constitutional debate about rights, unfortunately, has become increasingly murky and many legal scholars have begun to question the significance and validity of the distinction between

what the Germans call *Abwehrrechte* (the right to be left alone by the government), and positive rights, or entitlements. At first glance, the most appealing basis for the distinction between positive and negative rights can be found in the relative enforcement costs and processes: "Positive rights are inevitably assigned to scarce goods and consequently scarcity implies a limit. Negative rights, however, the rights not to be interfered with in forbidden ways do not appear to have such material, such inevitable, limitations" (Fried 1978). Other authors disagree, arguing that the enforcing of negative rights is just as costly and problematic as positive rights, because "the appropriate amount of forbearance may not be present and will require legislation, which is not costless, and sanctions, police, law courts, prisons, to secure the appropriate degree of compliance with forbearance and abstinence from action" (Plant 1992).

An attempt to resolve this issue is far beyond the scope of this chapter. Suffice it to note that the distinction—whether theoretically justifiable or not—has retained its relevance. Modern democratic welfare states, such as Germany or Japan, which have included commitments to social goals in their constitutions and have the constitutionality of their laws reviewed by courts independent of the judiciary, generally distinguish between enforceable negative rights and not-directly enforceable positive rights. In other words, these social rights are programmatic or aspirational goals. In Central and Eastern Europe, if constitutional courts were to consider social rights to be strictly enforceable, two consequences would ensue: reform attempts would be endlessly paralyzed, and fiscal expenditures would remain high.[4]

A predictable judiciary is considered a major element of stability in a society dominated by the rule of law (World Bank 1997), but constitutional law is different, in this respect, from civil or penal law. The interpretation of the constitution needs to change over time to adapt to changing circumstances. A good example is provided by the change, between 1990 and 1994, in the Hungarian court's interpretation of the type of property rights that deserve constitutional review. Initially, in 1990, the court treated property rights on a narrow civil law basis that includes the possession, use, and disposal of real property. Then, around 1994, as the Chief Justice explains, "the concept of property right was extended to pension benefits with the idea that they, in the abstract, represented a kind of property claim and thus a property right" (Solyom 1997). Nevertheless, even though gradual interpretative changes are desirable, sudden reversals in the court's opinion or unexpected changes in

the "rules of the game" induced by the court can create uncertainty in economic and social life.

The Protection of Social Rights by Constitutional Courts

In both Western and in Eastern Europe, social entitlements have increased in importance over the past three decades. In Western European countries, equity considerations have gained prominence, since the late 1960s, and this has helped shape legal norms, institutions, and policies. Several elements of the institutional setting changed as welfare benefits were expanded both by acts of legislation and the judicial system. The tax wedge widened, as more generous social insurance benefits had to be financed from labor productivity. Most importantly, a whole set of measures raised the reservation wage: the duration of unemployment benefits was increased; it was made easier to obtain such benefits, the conditions under which the unemployed were expected to accept jobs were interpreted more generously (under a standard of reasonableness); governmental schemes for the unemployed were extended; the gap between the lowest wage in the labor market and non-working income in welfare programs narrowed; and the minimum wage was increased.[5]

In the new democracies of Eastern Europe, the vast majority of the population had at its disposal a wide range of free welfare services under socialism. One must therefore count, at the level of public sentiment, a strong attachment to the notion of a paternalistic state. As János Kornai puts it, "a particularly strong survival is the demand for paternalistic care from the state, for state action to shield the individual from all the buffets of transition and economic adaptation. Similarly strong is the survival of egalitarian ideas and emotions that cause people to greet with bitterness and antipathy the inequalities accompanying the market economy and expansion of the private sector" (Kornai 1992).

In legal theory, social rights are viewed either as "acquired rights" or as "purchased rights." In the European tradition, acquired rights are most often constitutionally protected under the doctrine of legal certainty. This normally provides procedural safeguards, but can be extended based on a material concept of justice. Purchased rights, which generally are entitlements that are insurance-based, are most often constitutionally protected, in the same way that property is, using the doctrine of public interest, implying that fair compensation is required when a person's rights are violated. All social rights, regardless of whether they are deemed to be "acquired" or "purchased," are protected by the concept of non-discrimination. There is a further, and important, basis for the constitu-

tional protection of social rights, which is the notion of a "social minimum" guaranteed by the constitution. Generally, this is interpreted restrictively, as in Germany, as a programmatic right, which means that the court implicitly recognizes the existence of a fiscal constraint, but is at liberty to use a broader concept of what constitutes a minimum, or decent, standard of living to be protected by the state. These concepts are discussed in more detail in the fourth section of this chapter.

Institutions to Reduce Social Risks

Property-like protection is granted to rights that have emerged as the result of an insurance relationship in case of pensions, health care, and unemployment. Essentially, four different economic institutions have developed over time to cope with these types of risks that emerge during the normal life cycle of individuals (Majnoni d'Intignano 1993). Each institution is based on a modified concept of individual responsibility and involves a different level of individual and state participation, in line with changes in society's perception of equity.

The first type of institution is financial markets that allow individuals to build up personal savings (often facilitated by tax incentives) and, thus, encourage behavior to be able to provide for oneself or one's family when sickness, loss of employment, or old age occur. The second institution is the private insurance contract. However, for markets for these contracts to develop, certain conditions must exist. Risks must be known; they must be measurable, equally spread among insurees, and independent from the behavior of insurees.

Because of moral hazard, private insurance schemes tend to create adverse selection by refusing to ensure high-risk people. This has reinforced a third type of institution, involving solidarity, either on a voluntary basis (mutual societies) or on a mandatory basis (social insurance). Categories of risks that justify coverage by social insurance include old age, survivorship and disability, health risks, and unemployment due to no fault of one's own. A more all-encompassing "cradle-to-grave" approach also would include family-related risks such as maternity. Social-insurance institutions, backed by the coercive power of the state to levy taxes on the active population and enterprises, redistribute income from active to non-active, from young to old, and from rich to poor. Unlike mutual benefit societies or charity, which are voluntary forms of redistribution, social insurance is mandatory. A fourth type of institution is assistance, which is the same as solidarity, but applies to people who cannot contribute to the financing of the scheme. It is based on the modern

idea of justice that a unit of wealth is worth more to a poor person than to a rich one, which is fundamentally ingrained in Western societies.

Social security organizations that administer social entitlements exhibit a great institutional diversity in terms of financing, governance, and political control. In terms of financing sources, benefits are financed either by contributions (payroll taxes) from employers and/or employees, or by taxes, and the rate and base of the tax, its incidence, and the type of market distortion it induces can vary greatly.[6] From the point of view of budgetary control, the central issue is whether these resources are managed by the central budget or by extra-budgetary funds. There is less central fiscal control when these funds are autonomous funds, managed by trade unions and employers organizations, as in Hungary,[7] Germany, and Belgium. Finally, and most importantly, the financial stability and the sustainability of social security schemes, such as pension systems, depend on the nature of their funding; as Feldstein (1974), Kotlikoff (1992), and others have demonstrated, pay-as-you-go funding schemes in which retirees receive net transfers from current workers, rather than paying in full for their age group's benefits, are not financially self-sustaining.

THE NEW CONSTITUTIONAL ORDER IN HUNGARY

The creation of the Constitutional Court was one of the most significant innovations of the new constitutional order in Hungary. The first steps in this direction were taken in the 1980s with the creation of a Constitutional Law Council. However, without judicial review authority, the impact of this Council was negligible. The current Constitutional Court began to function in January 1990, and has since then established itself as an active and potent legal and political force.

The Hungarian Constitutional Court is modeled after the continental European system of centralized judicial review. In other words, the Court is not—as in the United States—the highest court of appeals. Rather, the Constitutional Court is for the most part a court of original jurisdiction, which may make its own factual findings independent of the regular judiciary. Its jurisdiction extends to determining the constitutionality of laws, treaties, and parliamentary procedures, and to ruling on human rights violations. In addition, the Court can rule on conflicts between government agencies.[8]

The Hungarian Constitutional Court's rules governing standing are also very permissive. There are no restrictions on standing for legislation

already in force: any individual can challenge the constitutionality of such a law, even if not directly affected by its implementation. As Chief Justice Sólyom says, "this unrestricted standing for 'abstract norm control' is unique in the world." This is understandable because of the historical circumstances of the constitutional revision of 1989, though it has much less rationale in the context of a stable democratic multi-party system. In the current constitutional order, the three branches of government are subject to *actio popularis,* while the Hungarian constitution does not recognize the right to individual complaint (as exists in the German system, for example) through which individuals may challenge decisions made by courts or public authorities.[9] The Constitutional Court restricted the standing rules in the case of preliminary constitutional review. Despite these restrictions, the standing requirements of the court are, as a whole, unusually inclusive.[10]

On social rights, critics of the Hungarian Constitutional Court suggest that it has gone well beyond neutral protection of the rule of law and has instead created a place for itself as an extremely powerful, quasi-political authority, more powerful than either the executive or the legislature. Andras Sajó, a prominent critic of the Court's activism, has suggested that the Court's role in expanding the protection of social rights threatens the separation of powers and undermines the predictability and stability of legal relations. Sajó points out that several constitutional courts in Eastern Europe exhibit a kind of judicial activism that destabilizes the constitutionally mandated, although imperfect, separation of powers. With respect to the Hungarian Court specifically, he writes: "This nondeferentialism has serious doctrinal consequences. In order to maintain its permanent control over legislation, the Court may undermine the very value it claims to be upholding, namely, the predictability and stability of legal relations" (Sajó, 1996).

WELFARE POLICY DURING THE TRANSITION

Prior to the transition, Hungary, like other socialist economies, had a fully developed welfare system, with social security and other transfers to households accounting for about 25 percent of public expenditures. This redistributive system developed gradually—and without creating major fiscal shocks—since the beginning of the century, with a sudden acceleration during the socialist period. The family support system, for instance, dates from 1912. The pension system also began before World War I. Health-care insurance was developed later, under socialism. Unemployment benefits and social assistance did not exist—as unemploy-

ment and poverty were supposed to be non-existent under socialism—though they were developed in the mid-1980s, earlier than in any other socialist economy (see chapter 11).

After 1989, the process of social change resulting from the transition to the market economy was rapid and profound. There were major upheavals in labor markets, in particular for female workers and older workers whose skills were unadapted for a market economy, and both short- and long-term unemployment emerged rapidly. The creation of new jobs did not compensate for the jobs lost during the transition: between 1990 and 1994, Hungary lost 1.4-million jobs. This translated into open unemployment, but also into large increases in disability pensions, maternity leave, early retirement, and enrollment in universities. Income inequalities and relative poverty grew. The absolute number of people living under the subsistence poverty line computed by the Central Statistical Office grew 50 percent by 1992. As a result of these upheavals, there was much pressure for social protection mechanisms, and the government obliged. "The Antall government continued, without missing a step, its reform-communist's predecessor's generous social policies and even embellished the scope of some of the entitlements between 1990 and 1993" (Tőkés 1996).[11]

The system of family allowances, linked to employment and developed under socialism, was made almost universal in 1990.[12] The ratio of pensioners to employed persons in the pay-as-you-go pension system, which was 13 percent in 1950 and had grown steadily to 46 percent in 1990, reached 75 percent in 1995. The health-care system was profoundly reorganized, and public-health expenditures increased from 4.9 percent of the gross domestic product (GDP) in 1989 to 7.2 percent in 1994. The Employment Act of 1991 codified and expanded the unemployment benefit system developed in the mid-1980s. Entitlements to various forms of social assistance, generally means-tested and provided at the local government level, codified in the Social Assistance Act of 1993, were granted to various vulnerable groups.

There was a strong consensus—but probably no great awareness of the exact fiscal and economic implications—among political parties and the population about the need to expand social policy programs. Several existing programs were broadened to new groups and new benefits were extended to new population groups (for example, those mentioned in the 1993 Social Assistance Law). Not only were benefits expanded, but the legislature passed no significant laws cutting benefits, or restricting their eligibility, between 1990 and early 1995.[13]

However, while social transfers grew rapidly in the early 1990s—and with the rise in the number of persons living on transfers—there was a massive shrinking of the tax base, resulting mostly from the recession, which created massive financing problems. The tax burden, on the other hand, was growing so large that the (already flourishing) black economy continued to expand. The simultaneity of the expansion of eligibility and of the drying up of fiscal revenues, when there were strong expectations that the state should provide relief, led some—isolated—voices to call for comprehensive reform of the welfare system. In the public sphere, policymakers and parliamentarians were unwilling to contemplate a comprehensive reform and, starting in 1993, began to operate "by stealth" and in a piecemeal fashion. Family benefits, pensions from the public scheme, and other transfers gradually eroded by inflation, as the government and the legislature agreed not to maintain their real value in the annual budget laws.

As discussed in other chapters, the main impetus behind the reform of welfare rights in 1995 was the assessment made by policymakers that the budgetary situation was financially unsustainable. The budget had gone from a surplus in 1990 to a deficit of 7.5 percent of GDP in late 1994, and the public-sector debt was reaching 85 percent of GDP by the end of 1994, while the external debt of the country had increased from US$21 billion in 1990 to almost US$30 billion four years later. Part of the public-sector debt was the result of deficit financing. Welfare entitlements amounted to more than one third of public expenditures and were financially unsustainable, in the sense that benefits could not be financed by social security contributions or taxes without major adverse effect on economic growth leading to serious social consequences. This unsustainability was due to demographic and labor-market factors, but also to excessively generous benefit levels and punitive tax burdens on entrepreneurs leading to large-scale tax evasion, aggravated by low growth (especially during the recession of the early 1990s), which meant a low tax base and high unemployment. Since a government running a budget deficit has essentially three options (it can finance the deficit through money creation or debt creation, or it can reduce the deficit by balancing revenues and spending) and monetary or debt financing had reached its macroeconomic limits, the government opted for adjustment. Thus, the policy of deficit reduction—operated, among other ways, by modifying tax rates and bases or entitlements—was set to run into a potential conflict with the constitutionally protected rights of individuals.

The March 1995 stabilization law represents the first attempt at a comprehensive reform of welfare policy, as opposed to piecemeal measures. It also represents a milestone in the political history of Hungary, as the governing coalition broke the pact of not playing the "social card" that had been tacitly agreed between the major parties in 1989. Official documents published at that time clearly indicate that the government envisaged a comprehensive welfare reform.[14] Public sentiment was slowly changing, and the climate for comprehensive reform was more favorable than in 1990. After several years characterized by the gradual erosion (by inflation) of the real value of welfare benefits, the feeling that social justice was not well served by the system developed among some groups, largely as a result of the growth of the black economy. It was felt that the rich received a disproportionate share of wealth and that the future looked bleak for hard working law-abiding families. There does not appear to have been a commonly shared view that there were flaws in the generous welfare legislation, leading to a decline in the incentives to work and invest.[15]

THE DOCTRINE OF THE CONSTITUTIONAL COURT ON SOCIAL RIGHTS

The position of the Court concerning the conflict between protection of individual rights and economic policy changes has been clearly stated, in principle, by its Chief Justice. "The Court ruled that the Constitution was neutral in terms of economic policy. No abstract measure of unconstitutionality of state intervention may be deduced from it." This, however, does not imply that the Court intended to abdicate its authority to arbitrate between the state and the individual. The view of the Court when the stabilization program was introduced in March 1995 was that "the government seemed to revive the old socialist attitude that the law is nothing more than an instrument of policy, and thus the problems of the budget had priority over the constraints of the Constitution. In the eyes of the Court, however, the essence of the system change was the rule of law itself."

In matters of individual rights, the Court views itself as an activist court and declares that its "fundamental and declared aim was, and is, to develop the Constitution into a coherent system of norms and principles."[16] The Chief Justice, referring back to the distinction between "negative" and "positive" rights, clearly stated in a recent interview that "it is absolutely out of the question that any restrictive change could occur" in matters of human rights, yet, by contrast, views the field of social

rights as an evolving one: "I do see a significant chance for changes in the highly debated social rights, in the redefinition or requalification of state tasks, and in individual entitlements" (Sólyom 1997).

The Constitutional Court reacted to the Stabilization Act with two waves of decisions in the summer and fall of 1995.[17] The Court, which received many complaints on the Stabilization Act, ruled that the welfare changes could not enter in force as of July 1, 1995, because there was "no adequate adjustment period granted"; that some of the provisions of the law restricting social rights were unconstitutional—and therefore void—and that the Court would examine the legislation after its summer recess (Sajó 1996).

It has been suggested that the two groups of decisions differ in that the summer decisions questioned the procedural aspects of the Act's proposed changes to the welfare system, while the fall decisions delved further into substantive issues.[18] The actions—not just the words—of the Court frequently shed light on the procedural or substantive nature of their decisions: while some of the decisions merely mandate a delay in implementing the relevant legislation, others require a change in the manner of implementation, and yet others annul the provisions altogether.

The remainder of this section traces the Court's shift from procedural to substantive involvement by analyzing the four main principles on which the Court relied on its opinions:[19] legal certainty as a safeguard for social entitlements, property-like protection for insurance-based entitlements, non-discrimination, and need for minimum social standards.[20]

Legal Certainty

In the case of acquired rights, the Court considers that what deserves constitutional protection is not the entitlement itself but the interest of families to live in a predictable legal environment. This concept is called legal certainty and is akin to the Anglo-Saxon legal concept of reliance. When windfall gains or losses occur when government policy suddenly changes, which ones are considered constitutionally acceptable? Actual or reasonable reliance is violated when individuals wrongly assumed that government policy would not change.

A case in point is the reform of family allowances, an important element of the stabilization package, which is described in detail in chapter 10. The proposal went through substantial modifications after it was put on the Parliament's agenda. Then, after the law was approved by the

legislature, several rulings of the Constitutional Court obliged the government to revise the proposals. The first decision of the Court postponed the implementation by nine months to give affected households time to prepare for the change. Second, the wealth test was declared to be unconstitutional and, finally, discrimination between families with one earner and those with two was declared against the Constitution.

In one of the landmark decisions on maternity and child allowances, the Court first established that such entitlements are predominantly a form of non-contributory (non-insurance-based) assistance. Despite their non-contributory character, these entitlements cannot be reduced at the discretion of the legislature; rather, the legislative provisions must be balanced against the requirements of legal certainty: "The Constitutional Court declares that legal certainty is the most substantial conceptual element and theoretical foundation of the protection of acquired rights is of particular significance from the viewpoint of the stability of welfare systems" (Decision 43/1995).

According to the Court's interpretation, these entitlements are not protected due to their status as "social rights." Instead, the Court looks to a separate constitutional principle to justify their protection. Thus, the Court's alleged shift from its pre-1995 stance on social rights cannot be ascribed to a dramatically changed view on constitutional guarantees for such social rights, but rather to changes in the interpretation and enforcement of the underlying constitutional principle. In other words, the Court still does not claim that social rights must be protected as basic rights, but rather simply extends the meaning of legal certainty: "The concepts that are now classified as elements of legal security were originally used by the minority to justify welfare rights based on a material concept of justice" (Sajó 1996). While the Court had initially defined legal certainty as "the relative stability of the legal system" (Decision 32/1991), by 1995 the Court—as quoted above—considered legal certainty to be "the theoretical foundation of the protection of acquired rights."

The distinction between changed views on social rights and changed views on the underlying principle of legal certainty may seem insignificant. But—as Sajó points out—this distinction was critical in allowing the Court to formally follow its precedents—while nonetheless arriving at a different outcome. There is an additional difference, however: while an attempt to classify social rights as basic rights would substantively alter the constitutional protections for social rights, the extension of the concept of legal certainty provides largely procedural safeguards. The

result of the decision was, in fact, not an absolute halt in the attempted reforms, but rather a postponement of certain elements of the Stabilization Act. As the Court insisted in the opinion: "... the legislator is entitled to amend the entire regulation of the subsidy so as also to affect the legal grounds of entitlement and its preconditions so that the amendment affects those who had already acquired a right to the subsidy. In such cases, however, the legal certainty related constitutional requirement pertaining to the shift to the new system is to guarantee a period of preparation for those concerned... " (Decision 43/1995).

In a recent interview, László Sólyom defended his Court's social-rights decisions against the criticism that they put an end to any significant welfare reform efforts: "Our decision explicitly called for reforms, and we also emphasized that there was nothing in the Constitution that prohibited them.... Our point was and is that the ways and the schedule, the timing of these measures, are subject to constitutional control" (Sólyom 1997). In discussing the decisions rendered in the fall of 1995, a look will now be taken at how successful the Court was in maintaining this seemingly procedural emphasis.

If legal certainty is "the theoretical foundation of the protection of acquired rights," the Court can be faulted for establishing a principle but failing to draw its logical consequences. The issue here being that when policies are fiscally unsustainable, what is an adequate way to protect the rights of citizens? In transition economies, some population groups are likely to be averse to the risk of policy change. Theoretically, they could buy private insurance against it, but instead, they prefer to reinforce policy continuity as a form of implicit public insurance. This issue is returned to in the last section of this chapter.

Protection for Insurance-Based Social Entitlements

In the case of purchased rights, one of the main problems the Constitutional Court has to face is how to strike a balance between the two main elements of social security systems: redistribution and actuarial fairness. Social security systems have two main objectives: providing compensatory income (for retirement, in case of sickness or involuntary unemployment, etc.) and redistributing income from high- to low-income workers. These systems, thus, act as individual insurance mechanisms, but also as a form of government intervention and redistribution. In some countries, the two objectives are pursued separately (that is, in separate programs) but in most countries—including Hungary—the two

objectives are accomplished by one social security scheme that is generally financed on a pay-as-you-go basis, which redistributes between generations and—within the same age cohort—between low and high income individuals. In December 1991 the Hungarian Court had ruled that social insurance is an "insurance-based legal relationship and the insurer must provide a benefit which is commensurate with the amount of the contribution" (Decision 11/1991). However, it had yet to pronounce itself on the issue of actuarial fairness, that is, the probabilistic/actuarial link between contribution paid and benefit received. This issue of proportionality between contributions and benefits was addressed in the context of sick-pay reform and in several rulings on pension benefits, discussed below.

SICK PAY. In Hungary, sick pay benefits financed by social insurance average 25-30 days during the first years of the transition, compared to a Western European average of 18 days. In part, this reflects the genuine poor health of the population, but it also reflects the use of sick pay by employers and employees as a substitute for unemployment benefits. In an attempt to curtail sick-pay abuse, greater responsibility was given to employers in 1992—which did not significantly improve the situation. The March 1995 stabilization law had proposed that employers take responsibility for the first 25 days of sickness (up from 10 days in 1994, and 15 in the original 1995 budget) with a mandated replacement rate of 70 percent of past wages for days 5-25 (and the first 5 days left at the discretion of the employer) but the Constitutional Court voided the decision.[21] The legislation on sick pay was, therefore, modified and it has now increased employer responsibility to 15 days and introduced mixed financing from the 16th day, with employers paying one third of sick-pay expenditures.

In the same month, the Court ruled that technical changes in financing mechanisms, such as shifting the sickness-benefit payment obligation onto the employer for the initial period of disability, is an acceptable method, used also in many other European countries. In 1995, the Court ruled again on sick-pay financing (Decision 56/1995). After reaffirming that the social security system mixed insurance and assistance elements, the Court attempted to dissect these two elements to determine which benefits were predominantly insurance-based: "The sickness benefit due to the sick employee owing to disability is one element of health insurance...which, within the mixed system of social security—consisting of insurance and solidarity elements—functions predominantly as a 'purchased right.'"

In a number of earlier cases—including Decision 43/1995—the Court had established that purchased rights were to be considered a kind of property and consequently given the same constitutional protection.[22] Having established that the right to sick pay is protected as property, the Court then discussed whether the relevant provisions of the Stabilization Act constituted an unconstitutional expropriation. The two key questions were, could the expropriation be justified as in the "public interest"? And, if so, was the "public interest" achieved proportionate to the means used? In this analysis, the Court emphasized the legislature's broad scope of action, asserting that expropriation for a public purpose was well within the legislature's competence. However, the Court uses the principle of *laesio enormis* to attack the manner in which the legislature exerted its power: "There is no doubt that the operating capability and maintenance of the social security system, the fact that the underlying guarantee of the state has become increasingly difficult to maintain, are 'public interests,' providing good reasons for the constitutional restriction of ownership. The mode and magnitude of the change regulated by the legal provisions concerned—removing 75 percent of the guaranteed so-called classical right to sickness benefit from insurance—violates the protection of property ownership" (Decision 56/1995).

Here, unlike for instance the U.S. Supreme Court's ruling on "new property,"[23] which only provided procedural protections for welfare benefits, the Hungarian court is toeing a thin line between procedural and substantive. While the reference to "mode and magnitude" suggests a procedural emphasis, the Court has, in fact, delved considerably into the substantive elements of the case in deciding the complex issue of proportionality. The ruling, in fact, does not call merely for a procedural postponement, but instead for a substantive revision of the provisions in question.[24]

RETIREMENT BENEFITS. The issue of the actuarial fairness of the pension system (and therefore of the balance between the redistributive and insurance elements of the social security system) was addressed by the Court on several occasions. In Decision 26/1993, for instance, the Court ruled that it was unconstitutional for Parliament to increase pension levels but to set a maximum for the increase, both in percentage and in nominal terms because social insurance is a mixed system with both insurance and assistance elements. While the state has broad discretion to change or regroup welfare benefits, it cannot introduce arbitrary changes in the ratio between insurance and assistance; such would be unconstitutional.

In a pay-as-you-go system in which current payments are financed out of current receipts, and in which the public sector accumulates large amounts of contingent liabilities for pension rights,[25] these rights can be viewed to a certain extent as unfunded mandates, since one must recognize that pay-as-you-go financing systems are "nothing more than Ponzi schemes" (Kotlikoff 1992). Improving the pension system's stability in the long term requires posing the problem of intergenerational solidarity in new terms (Feldstein 1974). Therefore, the relevant economic comparison here is between the present value of the tax paid and of the benefit received, and not—as the Court's rulings suggest—between the current value of the tax or transfer.

Drastic measures were long overdue to ensure the long-run viability of the pension system in Hungary. This was accomplished by the reform approved by Parliament in two phases, in June 1996 and July 1997, as discussed in detail in chapter 7.

Constitutional issues were recognized early on in the public discussions surrounding the pension reform. Forcing workers (who had already contributed to the system) to join the multi-pillar system would violate their acquired rights. However, *not* allowing some workers (in particular, older workers close to retirement, who would therefore not have sufficient time to accumulate savings in the funded system) to switch to the new system could violate the principle of non-discrimination (see below). The initial government proposal, therefore, proposed to recognize rights acquired under the old system by granting compensatory pensions. Legal rights to a pension acquired by workers under the old system would be recognized, but lower accrual rates than in the pay-as-you-go system would be used. Offering lower accrual rates for past work history, without creating a threat of legal challenge, is possible because of the voluntary nature of the switching option. On the other hand, lower accrual rates allow the government to reduce the size of the pension debt that will need to be financed in the future.[26] However, a last-minute amendment in Parliament allowed all workers (not only those below 47 years of age) to opt for the mixed system with the same accrual rate in the benefit formula. This amendment would have considerably increased the future cost of the reform. (This was later corrected by a provision inserted in the 1998 Social Insurance Budget.)

The new pension system—still untested in the courts—contains a contribution-financed public pillar that is much less redistributive than its predecessor. Normally, the social-insurance aspect of the system would imply that there should *not* be a strict link between pension benefits and prior earnings history. However, the legislature has decided otherwise, es-

sentially because in the current context of high contribution burdens and high tax evasion, compliance is likely to be better if benefits are more earnings-related.[27] The new Hungarian pension system, as described in chapter 7, includes a safety net (the so-called "zero pillar") for the poorest of those who do not fulfill the requirements for a basic pension. These persons are guaranteed a means-tested minimum income financed from the central budget and administered by local governments.

Non-Discrimination

The principle that the law should not discriminate between individuals is often invoked in matters of social rights. In an important decision on family allowances (Decision 52/1995), the Court addressed complaints concerning the arbitrariness of considering only the market value of real estate and automobiles in determining need.

The Stabilization Act had specified that families whose real estate and automobiles had a market value of over 10-million forints and 2-million forints, respectively, would automatically be considered ineligible for family allowances. The Court stated that it is in theory within the legislature's domain to choose excluding factors (that is, to use cars as a determining factor rather than, for example, "luxury yachts [or] helicopters"). Therefore, the Court neither questioned these factors nor annulled the relevant provisions of the Stabilization Act. However, the Court laid down a constitutional requirement, which must be observed in implementing the provision in question: "It is a constitutional requirement that the combined, abstracted (notional) value of the asset specified in these points not be an excluding factor in cases where the asset, whether for objective reasons or for those arising from the role of the asset in the life of the family concerned, cannot be sold" (Decision 52/1995).

The court's reasoning is two-fold. The first argument depends on the notion of non-discrimination: the provision—if implemented without regard to the above requirement—would be discriminatory. Large families are discriminated against, merely because they are likely to need a larger (that is, more valuable) house, even if their income is, in fact, no higher than families with fewer children and a smaller house. Similarly, families that need cars—either for work or due to a disabled family member—may feel the discriminatory effect of the provision. Thus, although the Court does not explicitly mention Article 70/A of the constitution (the non-discrimination principle), the argument seems to be relying on an ancillary principle to protect social rights, rather than on an upfront guarantee of specific social rights.

Despite the decision's clear substantive effect on the implementation of the legislation, the Court's decision to impose a constitutional requirement on the legislature rather than annul the provision seems an ingenious attempt to balance the procedural and the substantive. In addition, the choice suggests that, while the Court clearly views the protection of social rights as a "state task," it leaves open this critical question: are social rights enforceable as individual, basic rights? Indeed, the emphasis in the Court's opinion is on the system, rather than the individual: "[It is] a minimum requirement of a constitutional state and of the security of law that the system truly function as a system" (Decision 52/1995).

The Guaranteed "Social Minimum"

Here, the line of reasoning of the Court, at least on first glance, is a drastic departure from the indirect protection of social rights granted under the non-discrimination principle. The Court bases its opinion on the outright protection of the minimum social security required by Article 70/E of the Constitution: "The operation of the system in such a manner that it would deprive those truly in need from a subjective right...would not provide the constitutionally mandated minimum of the right to social security regulated in Paragraph 70/E, Clause (1) of the Constitution" (Decision 52/1995). The court again directly invokes Article 70/E in ruling on the second issue presented in Decision 52/1995. The relevant provisions of the Stabilization Act required families with a drop in income to wait six months before applying for family allowances. In addition, the Act determined that, if deemed eligible for family allowances after the six-month delay, the family in question would only receive benefits back-dated to the time of application not to the actual change in income. The Court issued another "constitutional requirement" that families able to prove the permanence of their income loss (for example, due to death of a family member) should not be required to wait before submitting their applications for family benefits. These, then, are examples of the direct protection of social rights. However, it should be emphasized that the Court only invokes the necessary "minimum"—not a specific level of social security. Even more importantly, the Court still does not seem to have moved into the realm of judiciability. As mentioned above, the Court refuses to annul the relevant provision in deference to the legislature, and instead creates constitutional requirements, which still seems more akin to state tasks than enforceable individual rights.

The Court did, however, go one step further in this decision by annulling the provision related to back-dating of benefits. This provision "[violated] the principles of a system based on need" (Decision 52/1995). Benefits must, the Court stated, be provided retroactively from the time of the income loss to satisfy the minimum social security requirements of Article 70/E. The Court's emphasis in this portion of the opinion, interestingly, has also shifted from a concern with the functioning of the system itself to a concern with the impact of the system on the individual: "In creating this rule, the legislation failed to perform the many-sided analysis of life situations that may be expected in the course of the application of the Law and . . . enacted a rule which, although it does not give rise to constitutional concerns in certain cases, in other cases leads to an unconstitutional deprivation of rights."

One of the declared objectives of the Court, in the words of its Chief Justice, has been to "develop a new doctrine that took the social elements or 'social burdens' into account, namely how far these kinds of entitlements can be reduced or restricted." In Decision 26/1993 on pension increases, in which the Court ruled that there was no constitutionally protected right to have one's standard of living maintained by the state, four justices wrote dissenting opinions. How far have these decisions of 1995 moved Hungary down the road toward non-programmatic, judicially enforceable social rights? One way of answering this question is to compare the doctrines on the protection of minimum social security and acquired rights as they function within the German and Hungarian constitutional orders. The comparison between Germany and Hungary is justified for several reasons. First, the Hungarian constitutional court has explicitly referred to the German constitutional court as a model for many of its decisions in this realm. In addition, the judicial structures of the two countries, and their legal traditions, are relatively similar.

In Germany, Article 20 of the Basic Law states that Germany is a social state. Based on this very general requirement, the German legislature and the Constitutional Court have created a framework of social rights and requirements, including both a minimum level of social protection and limited protection for acquired rights on the basis of confidence protection (*Vertrauensschutz*). The actual text of Article 20 provides little insight into the practical implications of being a social state. However, the Constitutional Court has clearly interpreted this broad structural claim to include the requirement to provide a minimum level of social security to all citizens: "The principle of a social state does imply a task for the legislator, but—given the principle's breadth and vagueness—no

requirement to provide a certain level of social security can, as a rule, be derived from it. The only requirement is that the state provide its citizens with the minimum necessities for the human dignity."

In the same opinion, however, the Court states that decisions not affecting this minimum are clearly within the competence of the legislature: "As long as it is not a question of the mentioned minimum necessities, it is the decision of the legislator, what level of social benefits should and can be provided, taking into consideration the available resources and other equally important state tasks. In this process, he is allowed a large scope of action."[28]

Most interesting here is the distinction between state tasks and individual rights. In the German Basic Law, Article 20 is very clearly not categorized as one of the basic rights, which are listed in Articles 1-19. Rather, it is a "principle of constitutional law." This hierarchy is by no means equivalent to the enforceable and non-enforceable distinction, but it is also not altogether unrelated. While the basic rights are clearly and directly enforceable, the principles of constitutional law are guiding notions for the legislators in performing their state tasks. Although both the German and the Hungarian constitutional orders do protect a hard-to-define minimum standard of social security, the lack of detailed social security requirements in the Basic Law itself,[29] and the explicit distinction between individual rights and constitutional principles within the Basic Law's taxonomy, differentiate the German from the Hungarian system. In practice, the German Court, unlike its Hungarian counterpart, has been hesitant about enforcing specific rights under Article 20.

Article 20 includes not only the principle of a social state, but also the principle of the rule of law. The Constitutional Court has created a very limited protection of acquired rights based on the latter principle. The Court distinguishes between real and non-real retroactivity. While real retroactivity is clearly unconstitutional, non-real retroactivity is presumed to be constitutional. Laws and regulations that affect ongoing legal relations (that is, legal relations begun in the past, but not yet completed) fall into the category of non-real retroactivity. Thus, most social insurance regulations come under this heading.

Despite the presumption of constitutionality, such regulations do have to pass one more hurdle, called confidence protection (*Vertrauensschutz*), which is similar to reliance. This limited protection, according to the German Constitutional Court, is triggered when the state alters the legal position of an individual who had no reason to expect the alteration and, in fact, relied on the continuation of the current situation.

While this concept may seem reminiscent of the Hungarian Court's analysis of legal certainty, the German constitutional court has set strict limits on *Vertrauensschutz*. First, the legislature is entitled to balance budgetary needs with social entitlements: in the case of a budgetary crisis, it has significant leeway in altering or diminishing social entitlements.

Second, the protection afforded individuals depends, at least in part, on the financial impact of the benefit reduction in each case: "The protected confidence is lower, the more easily acceptance of an income reduction can be expected of the individual."[30] Thus, it is clear that *Vertrauensschutz* provides no absolute protection; in fact, this correlation between an individual's prosperity and the corresponding level of protection suggests that *Vertrauensschutz* may be no more than another means of enforcing a minimum level of social security.

CONCLUSION: CONSTITUTIONALISM AND POLICY REFORMS

This conclusion summarizes, in general terms, the debate on welfare reforms and protection of rights. How can the principle of legal certainty, considered by the Court to be "the theoretical foundation of the protection of acquired rights" and the other basic constitutional principles discussed above be reconciled with the need for policy reform? It is argued here that this issue has been essentially viewed by constitutional courts in modern welfare societies as an insurance problem.

When courts invoke the principle of legal certainty, they actually refer to attitudes toward risk and to different *prudential* aspects of policy changes. Case-in-point: compare the situation of a social security contributor faced with a change in his rights with that of a bondholder faced with the threat of government default on his bond; or of a mortgage holder or property owner faced with a change in her subsidized interest rate.[31]

When the Chief Justice of the Hungarian Court refers to the "ways, the schedule and the timing" (Sólyom 1997), he is actually discussing how best to address *expectations* of policy continuity or change. Some "backward-looking" cases involve actual or reasonable *reliance*. Should the population have assumed that government policy would not change? For instance, should the worker near retirement who is facing a loss of expected benefits have made such an assumption, given that welfare policy has changed frequently (as discussed above)? The amount that the worker saved for retirement may have reflected an implicit govern-

ment promise not to change entitlements (within certain limits). The bondholder and the property owner have a strong claim. The social security recipient's claim is weaker. Even though there has been a promise of general policy continuity, such that contributors will later benefit, the conscious knowledge that changes in welfare policy were being discussed and occurred all the time, make the old worker's reliance weak (and the reliance claim of a younger worker weaker still).[32] In some other specific cases that are "forward-looking," what is involved is *future expectations* about policy change or continuity. There are strong arguments to protect the bondholder and the property owner. A bond default might raise the interest rate that the government must pay on its bonds for decades to come. A policy shift to permitting expropriation might make people reluctant to invest in socially valuable ways that make them vulnerable to uncompensated seizure. But the arguments in favor of not modifying acquired social rights are weaker, and the offsetting disadvantages of maintaining policy continuity are strong.

In other Court rulings, the issue is actually how to compensate for welfare losses resulting from the "shock" (price increases and/or reduction in entitlements) linked to the policy change. This is essentially an issue of implicit insurance. Losses often inflict the least harm if they are spread widely rather than being concentrated. One could argue that—people being averse to the risk of policy change—they could simply buy private insurance against it. In some areas, however, insurance markets are not well-developed in transition economies (for survivorship or disability risks, for example). It is, then, desirable, through government reform, to provide incentives to develop these markets to generate a different blend of private and public activities in society. This is clearly one of the goals of the Hungarian pension reform, which creates a publicly mandated but privately managed retirement system.

But if private insurance markets, which tend to be more efficient, are available, should the government still act as an implicit insurer? In some extreme cases, policy continuity (and strict enforcement of rights) as a form of implicit public insurance is preferable to private insurance. It can be argued, for instance, for pragmatic reasons, that bondholders should be repaid. The government is its own best insurer against the risk of its reneging on its own definite commitments (Shaviro 1997). In most other cases, including welfare rights, the general tendency of constitutional courts in modern welfare societies has been to treat welfare recipients in light of their possible reliance, but to require them, if necessary, to bear some of the costs of change.

Gradual and widely expected change is preferable to sudden and unexpected change. Moreover, distributing the cost of change as widely as possible is often desirable on insurance grounds. This suggests the following conclusions: if welfare policies are unsustainable, they should be changed as gradually as possible, all else being equal. Early and more gradual policy changes will facilitate changes in expectations and behavior. In addition, in social insurance cases, this will permit the costs of change to be spread among a larger number of people. In an intergenerational perspective, policy continuity is preferable for older persons and flexibility for younger participants. Most of these principles can be found at work in the doctrine of the Hungarian Constitutional Court. However, they are diffuse and have not yet been elaborated into a coherent and logical whole. Given the likelihood of accelerated changes in the near future in the area of social rights, the "redefinition or requalification of state tasks, and [of] individual entitlements" envisaged by the Chief Justice is likely to take place in the next few years.

NOTES

1. This is a major difference with U.S. courts, which will avoid ruling on abstract or moot issues (Schwartz 1993).

2. Article 17 of the revised Hungarian Constitution states generically that "the Republic of Hungary sees to the wants of the needy through a long list of social measures." The rights to social security (old age, illness, disability, widowhood or orphanhood, and unemployment for no fault of one's own), health, culture, and education are guaranteed more specifically by articles 70/D, 70/E, 70/F, and 70/G.

3. Note that this question of enforceability of social rights is separate from the issue of whether social rights should be at all mentioned in written constitutions.

4. For example, the cost of the June 30, 1995, decision of the court that overturned a number of welfare provisions of the stabilization program was 35 billion forints, forcing the government to find alternative sources to generate an equivalent amount of fiscal savings to bring the supplementary budget into balance.

5. Siebert (1997) gives specific examples related to most Western European countries.

6. While there are differences in terms of base (contributions are based on labor income, while general taxes have a broader base), level (ceilings on contributions—but generally not for employers), progressivity of personal income taxes versus regressive nature of contributions, etc., contributions cannot be considered the equivalent of an "insurance premium."

7. In Hungary, the 1991 Law on Social Insurance Self Governments adopted in application of Art. 70/E clause (2) of the Constitution ("the Republic of Hungary upholds the right of the people to being provided for through the social security system and its institutions") led to considerable institutional complications and loss of fiscal control that is still the case today. The mode of selection and representativity of the members of the General Assembly of the Self Governments was modified by law in June 1997.

8. The Court's role in resolving interagency conflicts frequently does not involve constitutional matters. Therefore, the Court's activity in this area contains a clear political, non-constitutional element (Schwartz 1993).

9. In 1989, the opposition wanted an independent court to exercise control over the actions of the then still-ruling single party (Sólyom 1997).

10. Only the President, Parliament, parliamentary committees, groups of more than 50 parliamentarians, or the government as a whole can request preliminary constitutional examinations; that is, rulings on the constitutionality of a law before the final vote of Parliament.

11. The social-Christian roots of the government may be an explanatory factor. European history between 1917 and 1970 shows that Christian parties—or in some cases, Christian and social-democratic parties alternating in power and outbidding one another with voters—had a significant influence on the development of social security systems (for example, in Germany, the Benelux countries, and Austria). By contrast, this has not been the case during periods when only social-democratic parties were in government (Majnoni d'Intignano 1993).

12. One of the last measures of the outgoing socialist government in 1990 was to make child allowances universal. The family support system then included universal child allowances, social insurance based on maternity and child-rearing benefits, and employment guarantees and special parenting rights.

13. Parliamentary Resolution 60/1991 on the need to reform the pension system is an exception, but it was acted upon only in 1996 when the retirement age was increased.

14. See Ministry of Finance (1995) and Government of the Republic of Hungary (1995).

15. But there is little hard evidence on public opinion about this issue prior to 1996 (see TÁRKI 1996; Csontos, Kornai, and Tóth 1997; and Kornai 1997).

16. "We always stress that we are activists in certain areas, namely, concerning fundamental rights, where the Court does not hesitate to decide on 'hard cases.' But we are self-restrictive concerning the problems related to the political structure." (Sólyom 1997). The term "hard case" is a direct reference to Dworkin (1977).

17. The Government adopted Resolution No.1023/1995 "on the 1995 Economic Stabilization Program" at an extraordinary Cabinet Meeting on March 12, 1995, and sent to parliament two pieces of legislation: a supplementary budget for 1995 and proposal of law No. T/817 "on some legal amendments aiming at

the stabilization of the economy." Some 21 majors laws were amended by this law, which was adopted by Parliament in May 1995.

18. "Unlike the decisions handed down during the summer, the September decisions did not invalidate provisions of the Bokros package on merely procedural grounds. Moreover the September decisions are reminiscent of the Court's previous attempts to micromanage the legislative process" (EECR 1995).

19. Given the limited scope of this chapter, the focus here is on a few important cases rather than trying to provide a systematic overview of the doctrine of the Hungarian Constitutional Court.

20. All four themes are highlighted and placed in relation with each other in the Court's landmark decision on maternity and child benefits: "In judging...how [the benefits] can be withdrawn constitutionally, social rights have a role insofar that, as a result of such withdrawals, the extent of welfare benefits may not be reduced to below a minimal level which may be required according to Art. 70/E. The constitutionality of the individual changes, however, also depends on whether or not they clash with other constitutional principles and rights, thus whether or not they are contrary to the principle of legal certainty, the ban on negative discrimination and, if it is also a benefit including elements of insurance, to the protection of property" (Decision 43/1995 of June 30, 1995).

21. Some measures had already been taken in the original 1995 budget: working retirees no longer have sick-pay entitlements, the effective replacement rate was reduced by paying only on the basis of a strictly defined wage, the number of days for which the employer is responsible was increased to 15, and the tax base was broadened.

22. In addition to Decision 43/1995, see also Decision 17/1992 (III.30.) and Decision 64/1993 (XII.22). Both of these earlier decisions lay the groundwork for the property theory of rights used in this sick-pay decision.

23. U.S. Supreme Court, *Goldberg v. Kelly*, 397 U.S. 254 (1970), which made due process guarantees, such as pre-termination hearings, mandatory.

24. The Constitutional Court, in fact, ruled on a number of provisions within this one opinion and found many of them to be constitutional. In this case, we are referring only to the sick-leave provisions.

25. It was calculated that the implicit debt due to unpaid pension rights amounted to 260 percent of GDP in 1995, or about three times the explicit public-sector debt (World Bank 1995). These calculations are controversial, however, as they depend crucially on the discount rate used.

26. Lower accrual rates do not imply that the overall pension of individuals would be lower. Young workers, upon retirement, will have higher pensions because of the compounded private rates of return in the second pillar. Other workers will opt, or not, for the new system depending on salary level, years of service, and life expectancy. Based on reasonable assumptions, males below age 40 and females below age 35 will find it attractive to opt for the multi-pillar system. Older workers are likely to have no incentive to switch and would remain in the pay-as-you-go

system, as they would not have accumulated enough capital to complement their first-pillar pension at retirement age.

27. In order not to increase expenditures while maintaining the minimum pension currently in effect, accrual rates would have to be reduced in higher income brackets (which means that the distribution curve for pension benefits would have to be "flattened"). If one wants to achieve an expenditure-neutral reform, there is an inherent tradeoff between minimum pension and replacement ratios for individual workers (lifetime earnings-to-pension relationship). That is, the benefit formula cannot be made more earnings-related unless overall expenditures increase since the minimum pension is maintained at its current level until 2009 (Palacios 1997).

28. Federal Constitutional Court of Germany, Decision of May 1990 (BVerfGE 82, 60 [80]).

29. Article 20 of the German Basic Law is roughly equivalent to Article 17 of the Hungarian constitution. However, the German Basic Law does not include a provision equivalent to Article 70/E.

30. Decision of the Federal Social Court (Bundessozialgericht) of Hamburg from January 22, 1986 - 10 Rkg 24/84, interpreting a variety of Constitutional Court opinions, including BVerfGE 51, 356 [362,363].

31. This comparison paraphrases Shaviro (1997) who provides a discussion of the issues.

32. It can be argued that they may not be fully aware of the fiscal implications of their collective behavior, given the recent transition to a market economy, but this should be viewed as a separate issue.

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PART V

REFORMING THE TAX SYSTEM

17 Tax-Policy Reforms in Hungary

Szabolcs Vámosi-Nagy, Imre Kocsis, and Luis Alvaro Sanchez

This chapter presents an overview of tax-policy reform in Hungary since 1988. Hungary was the first transition economy to move away from the practices of planned economies. It did so gradually, beginning in the mid-1960s. Reforms during this period provided certain autonomy for state-owned enterprises, and included the creation of an incipient tax system, which was closely tied to the logic of a planned economy. The definitive move toward market economy practices took place in 1988 with the elimination of mandatory plan instructions. That year also marked substantial reforms in taxation. The 1988 tax reform sought to replace a system based mostly on arbitrary and unclear relationships between the central authorities and the productive sector with transparent, neutral, and universal rules set by law.

The reform took place in difficult political and economic circumstances, which, jointly with the lack of adequate preparatory work and some degree of opposition, left an incomplete and somewhat inconsistent tax design. Hungary has since revised tax legislation almost on a yearly basis; thus, change in the tax rules has been permanent. Hungary has continued to follow a gradual approach to reforms, even during 1996 and 1997 when the government was forcefully engaged in fiscal reform. The tax system, as it has evolved, is broadly compatible with European Community practices. Still, substantial issues remain as to the level of taxation and the design of the tax system. It is a fair expectation to assume that the tax policy will continue to change, and do so gradually.

This chapter seeks to identify the underlying factors that have shaped tax-policy decisions, their outcomes, and strategies for dealing with emerging difficulties. As shall be seen, tax policy in Hungary has been driven by several objectives, including providing necessary revenues to the budget, promoting investment and savings, meeting equity objectives, and advancing toward European Community standards. This chapter also presents a brief evaluation of tax-policy issues today in light of recent initiatives, then concludes by presenting those issues that are likely to be in the future reform agenda.

THE 1988 TAX REFORM: AN OVERVIEW

The 1988 tax reform represented a substantial departure from the previous system.[1] It set the base for a taxation system compatible with market principles. The reform was successful in the sense that the basic framework established has been maintained and improved. The reform took place in very difficult economic and political circumstances, and, as a consequence, was left somewhat incomplete and inconsistent. In spite of all these difficulties and shortcomings, it can be safely stated that the 1988 tax reform launched a process that radically changed and reorganized social and economic relations in Hungary.

The tax system in place before the 1988 reform concentrated primarily on the ties between the production sector and the central budget. Most of the state's revenues came from the productive sector. Most of the net incomes accrued on producers' prices and revenues were channeled to the central budget through corporate tax and central payment obligations, and were then redistributed, partly to the benefit of the production sector, through a multi-channel—and obscure—support system. Besides generating revenues, the tax system was used to meet multiple objectives, such as income equalization, export promotion, and energy saving. It followed, then, that enterprise taxes differed according to ownership, organizational form, area of economic activity, and size of firm. The tax and the planning systems were complementary.

The majority of the population did not have to pay income taxes. Wages were subject to some taxation, but only in the form of taxes payable by employers—payroll taxes. There was a single-stage turnover tax payable on a limited number of products and services. There was also a general income tax payable by private individuals on supplementary income generated outside employment or through entrepreneurial activity. The taxes linked to consumption and personal incomes represented 30 to 35 percent of public revenues.

The foundations of the current tax system were laid down in 1988 by a tax reform that introduced a multi-rate value-added tax (VAT) and a personal income tax (PIT). Hungary also reduced the tax burden and compliance costs of enterprises by eliminating a variety of taxes and surcharges, such as on wage growth, investments, or assets. In 1988 Hungary issued decrees setting up an enterprise tax independent of the form of organization and ownership. These decrees became law in 1989. However, a true corporate income tax (CIT) did not come into effect until 1992 when a proper set of accounting regulations were put in place.

The 1988 tax reform was the first substantial step toward a tax system compatible with a market economy. By setting the tax rules by law, Hungary abandoned the previous discretionary system. By 1988 nearly 40 percent of budget revenues were regulated by laws and not by tax and income support agreements as under the old system. Today, tax and central payment obligations can be introduced exclusively by law. As the tax system moved away from discretion, the sources and magnitudes of contributions to public finances became transparent.

The reform initiated a trend away from enterprise taxation and toward consumption and PITs, which by 1988 already had accounted for 65 percent of total revenues. Reform of the price system moved income away from the production to the trade sector, and reduced tax contributions from the productive sector. Subsequent changes have further reduced the revenues obtained from the CIT, which today are less than 8 percent of total tax revenues.

The new system was (mostly) sector-, ownership-, and activity-neutral, and based on general tax categories. After 1988 it was no longer possible to use tax regulation exclusively to meet detailed and narrow economic priorities of the most varied sort. Taxation was organized around more general principles, and economic definitions of taxable bases. Still, the tax system continues to be used, even if to a lesser extent, to meet detailed objectives (see below).

The tax reform was implemented in unfavorable economic and political conditions, during a period characterized by restrictive economic policy, reductions in living standards, general lack of confidence, and resistance against—and sometimes open rejection of—the tax reform. At the same time, the urgency to provide a solution to accumulated economic problems and structural tensions, and the continued postponement of the political decision to implement the reform, reduced the time available for preparatory work and elaborating legal regulations. The continued postponement itself was explained by the complexity of the scope of the intended reform. Therefore, several points of the new tax system were inadequately elaborated, and at times inconsistent.

To the economic and political difficulties and the lack of preparation, one must add the fact that the tax reform was part of a broader package, which itself was not implemented either completely or on a timely basis. For instance, comprehensive reforms in income distribution and ownership—important prerequisites—had not even been spelled out in the preparatory phase of the tax reform. On the contrary, it fell upon the tax re-

form to settle the strained social and economic tensions, a task for which it was not an adequate instrument.

Moreover, the planned shift of net incomes and deductions from the productive to the tradeables sector was only partially carried out. Taxes on the revenues of producing companies were reduced proportionately more than were the net income component of producer prices and the allowances to the production sector. But not all productive sectors benefited equally because of problems with centrally controlled price adjustments. For instance, commercial banks benefited, as did the raw materials sector, which was unaffected by controlled price adjustments. In other sectors, in particular energy, strict central control of wages and investments were maintained.

These difficulties and the opposition to reform led to the inclusion in the newly introduced tax laws and regulations of several, primarily political, allowances and privileges. Curtailing them has been on the reform agenda ever since. Overall, the immediate effects of the reform were milder than expected, but, more importantly, the reform was incomplete, and—partly irrespective of later social and political changes—carried only the seeds of the changes in tax policy that later took place.

CHANGES SINCE 1988

Hungary has not undertaken another broad and substantial tax reform at the scale of the 1988 effort, but it has continuously, if only marginally, changed elements of its tax policy and regulations. This section explores the main underlying factors or motivations behind the broad range of tax-policy changes. As mentioned, the initial tax-policy design was incomplete, and efforts since partly have sought to complete the design, remove inconsistencies, and make use of acquired experience. For instance, the initial design mixed tax policy and procedural norms in the same laws or regulations; later changes since have sought to separate the two. This effort is not quite finished. Work on accounting legislation provides an example of changes that were introduced to complete the original design of the tax system. In some other areas—such as local taxation—advances have lagged behind.

Other concerns, besides the incompleteness of the tax-policy design, have shaped the modifications introduced since 1988. Chief among these were maintaining a revenue flow consistent with public expenditure and available financing; reversing the economic slide; meeting social equity objectives; and assuring tax legislation was compatible with European

Community standards. Success in addressing these concerns was varied. Moreover, the policies generated, in turn, new issues of concern, which have recently become the focus of attention as the government and Parliament tax-policy legislation. These concerns include the high tax burden of the combined PIT and payroll taxes, and the growing importance of the shadow economy.

Financing Expenditure

In 1988, Hungary inherited a high level of public expenditure. The reforms that took place then and until 1995 did not attempt to reduce the level of public expenditure; on the contrary, while transfers from the central government to the productive sector decreased, social entitlements remained and even increased. Thus, the share of public expenditure in the gross domestic product (GDP) increased from 57 to 62 percent during 1990-94. The high level of public expenditure put pressure on the tax system to generate revenues. The pressure was not uniform on all taxes: the CIT fell from 7.5 to 2.0 percent of GDP in this period—and was the main cause of the fall in total tax revenue from 44.7 to 38 percent of GDP (see tables 17.1 and 17.2).

Corporate income taxes aside, the tax revenue effort was maintained in relative terms to GDP. However, the relative contributions of PIT and VAT increased. These increases resulted from higher rates and lower exemptions. The increase in PIT rates does not appear to have been planned, but was obtained by default, as tax brackets were not adjusted for inflation. The other instrument to enhance revenue was the elimination of the many exemptions and privileges, especially in the VAT and the PIT, that remained after the 1988 reforms—although this process remains incomplete.

Growth and Investment

The concern with growth and investment derives fundamentally from the difficult economic situation in 1988 and the following years, and the secular trend of declining investment. GDP in 1993 was only 82 percent of its 1988 value. Gross domestic investment experienced a declining trend that continued after 1988. The ratio of gross domestic investment to GDP dropped during 1988-93 from 25.3 to 19.7 percent (Kornai 1997). Moreover, the economy's gross operating surplus—and profits—declined after 1988, raising concerns as to its effects on investment. Hungarian governments since 1988 have sought to address these difficulties

Table 17.1 ***Main Tax Revenues*** **(HUF billion and share of GDP)**

Item	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Total major taxes	487.9	529.4	606.3	643.0	732.3	903.2	1,052.0	1,383.4	1552.5	1649.0
GDP	1,440.4	1,722.8	2,089.3	2,498.3	2,942.7	3,548.3	4,364.8	5,500.0	6745.0	8020.0
Percentage of GDP										
Value-added tax (VAT)	8.5	7.8	7.0	6.0	6.0	8.1	7.7	7.7	7.7	7.6
Personal income tax (PIT)	4.3	5.5	6.1	7.4	7.0	7.3	7.0	7.0	7.1	6.1
Consumption tax	6.1	5.5	5.2	5.5	5.7	4.2	3.8	3.8	3.5	3.5
Customs fees and import duties	2.4	2.6	2.5	2.5	3.4	3.6	3.5	4.6	3.3	2.0
Profit (corporate) tax (without lending institutions)	6.1	5.4	4.5	3.1	2.2	1.6	1.7	1.7	1.2	1.2
Extraordinary payments	6.5	3.8	3.8	1.3	0.7	0.7	0.4	0.6	0.2	0.2
Major taxes (share of GDP)	33.9	30.7	29.0	25.7	24.9	25.5	24.1	25.2	23.0	20.6

Source: Ministry of Finance.

Table 17.2 ***Main Tax Revenues*** **(share of total tax revenues)**

Item	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*
Value-added tax (VAT)	25.2	25.5	24.2	23.3	24.0	31.7	32.0	30.6	33.3	36.9
Personal income tax (PIT)	12.6	17.8	20.9	28.6	28.1	28.8	29.0	27.7	30.9	29.7
Consumption tax	17.9	18.1	17.8	21.4	22.8	16.4	15.6	14.5	15.1	17.1
Customs fees and import duties	7.1	8.6	8.5	9.8	13.7	14.2	14.5	18.2	14.4	9.5
Profit (corporate) tax (without lending institutions)	17.9	17.6	15.5	12.0	8.8	6.2	7.2	6.6	5.2	5.8
Extraordinary payments	19.2	12.4	13.0	5.0	2.7	2.7	1.7	2.3	1.0	0.9
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Numbers may not add up exactly to 100 due to rounding off.

Source: Ministry of Finance.

by using the tax system directly to encourage investment and, to a lesser extent, savings in an effort to bring about economic recovery.

A host of tax-policy measures favored investment: Hungary introduced a controversial foreign-investment regime, directly or in the form of partnership. As it turned out, the treatment of foreign investment proved overly generous and not particularly effective, and the special regime was scrapped in 1993. However, the privileges extended continue until they run out, which can take up to 2003. The original CIT decrees and laws also included special treatment for domestic industry. The tax system has also been used to favor savings: high VAT and excise rates penalize consumption, and interest on saving deposits is no longer taxed.

Lastly, the government encouraged the development of private entrepreneurship to facilitate the transition to a market economy by eliminating restrictions on independent economic activity and secondary occupations. The government went even further and used the tax system to encourage private entrepreneurs in hopes of reducing unemployment. These policies proved tremendously successful, to the point that by 1995 more than 700,000 people, close to one fifth of the labor force, were registered as self-employed.

Welfare Concerns

Hungary also faced the challenge of transforming its welfare system. As to taxation, the concern was whether to carry all welfare policy through the expenditure side or to use the tax system as a mechanism to obtain welfare objectives. No clear-cut decision regarding these issues was taken early on. Over time, however, the bulk of welfare policy was shifted toward the expenditure side. However, as shall be seen, the tax system continued to include provisions to meet certain welfare objectives, albeit at a scale much more limited than initially.

Emerging Compliance Difficulties

The policies designed and implemented in the late 1980s and early 1990s gradually began to generate unintended and undesired effects. High PIT, VAT, and payroll tax rates, combined with substantial remaining exemptions, provided ample incentives for evasion, and encouraged the emergence and growth of unofficial economic activities. The potential negative effects of these distortions were initially underestimated, especially when considering the weak enforcement environment. Concern increased, however, as the scope of unofficial activities became evident. The unreported economy has been estimated at up to 30 percent of the

total economy, most of which does not comply with tax legislation. Lack of compliance is also present in the reported economy. Thus, Hungary recently has introduced policies to check the growth of the "gray economy."

Another difficulty was that the level and structure of taxes, and the favorable treatment granted to private entrepreneurs, provided powerful incentives for evasion. Thus, for instance, it became profitable to pay wages as dividends to avoid the combined effect of income taxes and payroll taxes, as compared with the company tax and withholding on dividends. This was further complicated by the special corporate tax allowances that increased the incentive to pay wages as distributed profits. The preferential treatment made it attractive to register as a private entrepreneur as a way of reducing tax liabilities.

CHANGES IN MAJOR TAXES

Personal Income Tax

The introduction of the PIT was one of the centerpieces of the 1988 reform. The PIT was introduced in such a way that after-tax wages remained unchanged, which meant increasing gross wages correspondingly. Highlights of the evolution of the PIT design include increasing effective tax rates, narrowing the dispersion of tax rates, simplifying exemptions and tax allowances, and an emerging concern with the informal economy.

The unit of taxation has been the individual, and incomes of taxpayers within a household cannot be added up. The main rule governing taxable personal income has been that tax is due on total revenues minus the costs incurred in connection with generating them. Within this rule there are exceptions, as some costs cannot be deducted—employment, dividends, interest, capital gains—and in other cases taxable income can be calculated on the basis of presumptive rules.

The 1988 tax law classified incomes in two groups:

- Progressive taxation covers incomes from employment, certain intellectual activities, agricultural small-scale production, enterprises, the sale of immovable and movable property, real-estate leases, and incomes from other sources not specified in the law.
- Linear taxation covers income from dividend, gains on the stock exchange, and most income from capital investment.

Modifications to the PIT law have been made annually (table 17.3). The tax schedules have been changed year after year primarily to meet annual budget requirements, rather than to improve tax-policy design, but these changes have not affected the original PIT design.

REVENUE YIELD. The PIT is a high-revenue producer; revenues as a percentage of GDP increased from 6 to 8 percent during 1988-93, but fell to 7.3 percent in 1996. The increased contribution during the early 1990s was due to the failure to adjust the tax brackets for inflation, and the narrowing of tax brackets, which increased the number of taxpayers subject to higher marginal rates.

TAX RATES AND TAX BRACKETS. Progressive tax rates and brackets have changed every year except for 1993 and 1995. There are some general trends throughout these changes. First, the number of brackets decreased from 11 in 1988 to 6 by 1996. Second, overall effective tax rates increased because the brackets were not always adjusted for inflation. Third, the top marginal rate dropped from 60 percent in 1988 to 42 percent in 1997. Fourth, the gap between the lowest taxable and the highest brackets narrowed. This implies that overall effective real taxation increased and the burden became more evenly distributed among income groups.

In 1996 a radical change was made to tax private entrepreneurs at a rate higher than wage earners to compensate for presumed underreporting of income in that sector. This was done by eliminating the zero-percent bracket and introducing a so-called double tax table, which differentiated between employed and self-employed. The general tax table had six brackets, and new income limits; the lowest rate was 20 percent, and the highest 48 percent. For employment incomes the elimination of the zero-percent bracket and the restricted taxes were somewhat compensated by a tax credit—proportional to the ratio of wages to total income. These measures were unsuccessful. In 1997 the top rate was reduced from 48 to 42 percent, and the double tax table introduced in 1996 was eliminated. Instead, a tax credit of a maximum 20 percent of the wage, but not more than HUF 3,600 per month, compensates for the elimination of the zero bracket in 1996. Thus, the minimum wage (HUF 204,000 a year) is tax-free.

BROADENING THE TAX BASE. The initial PIT design included a considerable number of exemptions, allowances, and special treatments. In spite of changes, a highly complex regime of privileges has been maintained because of a lack of clear principles guiding the design. Certain

Table 17.3 ***Changes in the Personal Income Tax Burden, Main Indicators, 1988-1997***

Year	*Average gross wage HUF/person/year*	*Minimum wage HUF/person/yr*	*Date of introduction of new law*	*Upper limit of the PIT zero-percent tax bracket (HUF/year)*	*PIT marginal rate (percentage)*	*Lower bracket limit (HUF/yrs)*	*Average PIT percent*
1988	107,616	36,000	January	48,000	60	800,001	14.43
1989	126,852	44,400	July	55,000	56	600,001	
		48,000	October				14.37
1990	161,352	57,600	February				16.11
		67,200	September	55,000	50	500,001	
		69,600	December				
1991	215,208	84,000	April	55,000	40	500,001	18.13
1992	267,528	96,000	January	100,000	40	500,001	17.97
1993	326,076	108,000	February	100,000	40	500,001	19.25
1994	407,268	126,000	February	110,000	44	550,001	18.06
1995	466,800	146,400	February	110,000	44	550,001	21.45
1996	562,044	174,000	February	**	48	900,001	22.59
1997	671,640	204,000	January	--	42	1.100,001	20.91

-- Not applicable.

** The zero-rate bracket was eliminated; the upper limit of the first tax bracket is HUF 150,000; the tax rate in this bracket is 20 percent. As a result of the tax credit, the actual tax rate on wages was 2 percent in the first income bracket.

Source: Ministry of Finance.

revenues have traditionally been exempt, such as social transfers (for example, family allowance, various benefits, housing subsidy, services in kind, other benefits), or income in certain sectors (for example, agricultural small-scale producers). International treaties also have implied income-tax exemptions. Tax deductions have been used to encourage specific types of economic behavior, such as the use of savings for capital investment, contributions to voluntary mutual insurance funds, higher-educational studies, payments to domestic foundations, participation in vocational training, and private-firm exports.

As a consequence, the PIT base has been quite narrow, which partly explains the high rates.[2] After 1995, efforts were made to eliminate loopholes that facilitated avoidance and to reduce tax exemptions and allowances. In 1995 most preferences were replaced by allowances reducing the tax to be paid. In 1996 revenues and certain allowances (for example, insurance, investment) exempt from taxation were listed in a separate attachment, to facilitate their control. In 1997, however, some tax allowances were widened, and new ones introduced. A new tax allowance is granted to full-time college and university students for work performed in their own educational institutions, and the maximum allowance for the educational fee has been increased. A new allowance encourages payments into housing funds. However, a "general" tax allowance for housing-purpose savings (which had a maximum of 20 percent of deposits, or HUF 12,000 annually) was eliminated. The tax allowance granted for purchasing cooperative shares was eliminated because it created opportunity for abuse. The tax rules pertaining to payments by foundations, mutual associations, and so on, were restricted.

Benefits In Kind. The high level of tax rates led employers to remunerate employees through fringe benefits and payments in kind to reduce the tax burden. Hungary has introduced a novel approach to control these payments: for certain benefits in kind (for example, the use of cars for private purposes) the payer of the benefit must also pay income tax. This is a flat 44-percent tax, which is effectively 30.6 percent, since the tax is not deducted from the private individual, but the payer of the benefit. The tax on the use of company cars for private purposes is a fixed monthly amount, depending on the age and purchase price of the car.

Flat Taxes. In 1996 flat taxes were extended to incomes from the sale of immovable and movable property, and income from stock exchange derivative deals. Since 1996, capital gains—and income from the sales of movable and immovable property, assets rights, and land leases—have been subject to a linear tax of 20 percent. The tax exemp-

tion for interest income is maintained. Dividends are subject to 20-percent withholding (see below).

PRESUMPTIVE TAXATION FOR SMALL PRIVATE ENTREPRENEURS. Under the 1997 law, private entrepreneurs are subject to the same tax rules as smaller companies. Moreover, under certain conditions, small private entrepreneurs engaged in trades, such as hairdressers, beauticians, taxi drivers, or providing accommodation to paying guests, may choose a new itemized presumptive taxation that merges the personal income and the value-added taxes.

NEW TAX RULES FOR AGRICULTURAL PRODUCERS. Agricultural producers had been exempt from PIT and were not required to register as taxpayers. This presented ample opportunities for tax evasion, as transactions with agricultural producers could not be cross-checked. The 1997 PIT law seeks to bring this large group of taxpayers into the tax base. This is done by requiring agricultural producers to declare their taxable income, independently of exemptions, tax credits, or subsidies. The government estimates that tax allowances to the sector will increase, but considers that the encouragement of agricultural producers to request invoices reduces the tax-evasion possibilities for entrepreneurs who supply or service agricultural producers, and thus helps suppress the black economy.

OTHER MEASURES. The 1997 legislation also restricted the rules on advance tax payment: a 12-percent separate tax must be paid by those who inflate expenses indicated in their midyear reports, and, thus, obtain interest-free "loans" due to the underpayment of midyear tax payments. This change was motivated primarily by the fact that the new social security contributions are linked to the midyear tax payment.

Payroll Taxes

Hungary generates considerable revenues from payroll taxation. While payroll tax revenues as a percentage of GDP have dropped somewhat since 1990, they yielded 11.4 percent in 1996. Contribution rates have remained relatively stable since 1989, as compared to other taxes. In 1989 the employer contributed 43 percent of the wage paid an employee for social security, and the employee 10 percent. In 1996 the corresponding percentages were 42.5 and 10 percent. Social security contributions are broken into pensions and health. In 1991 a Solidarity Fund (unemployment insurance) contribution was introduced at 1.5 percent for employers and 0.5 percent for employees. The corresponding percentages in 1996 were 5 and 1.5 percent. These rates are among the highest

in the world, partly because payroll taxes apply to a somewhat narrower group than the PIT, which itself is narrow to begin with.

The combined effect of PIT and payroll taxes produces a large gap between gross payments by firms and net receipts of employees. Thus, in 1996, if an employee received HUF 100, the employer would have to transfer in payroll taxes HUF 47.5 and the employee HUF 44.5, PIT included. This represented around 62 percent of gross costs to employers and 92 percent of income of employees.[3] Under these circumstances, the return to investing in evasion is considerable—particularly as in Hungary there is not a clear link between benefits and contributions. Thus, it can be profitable for both employers and employees to agree on alternative payment schemes that underreport wage payments. The price, other than being caught, is an increase in the corporate base, which can be avoided by scaling down the size of the reported operation. Employees, on the other hand, can move to self-employment as a way to avoid their share of taxes. The high level of taxation, thus, induces the growth of unofficial activities, which become more ingrained as taxpayers invest more in evasive techniques.

Corporate Taxation

The 1988 reform repealed taxes on wage growth, investments and assets, and the so-called "city and village" contributions. The government also issued separate decrees specifying the tax obligations of state companies, corporations with legal entity, and "traditional" cooperatives (those not established with private capital). A standardized corporate profits tax was introduced in 1989. A truly market-compatible CIT came into effect with the approval by Parliament of the Law on Accounting in 1992, which required taxable income to be measured according to modern accounting practices.

On CITs, the tax rate has been reduced, incentives have been given to reinvest profits, and there has been ambivalent treatment of exemptions and other privileges. As a result of 1997 legislation, the corporate tax rate is low by international standards.

REVENUE PERFORMANCE. The drop in corporate tax revenues is explained to a great extent by the fact that, under the previous system, these revenues were exaggerated, as they included transfers from state enterprises to the government that were later offset by transfers from the government. At the core of this problem was an inability to differentiate between transfers of public profits (surplus) to the central government and taxation. Revenues were also hurt by the continued presence of ex-

emptions. Removal of some of these exemptions was accompanied by a drop in the corporate tax rate; CIT revenue yielded 1.2 percent of GDP in 1996.[4]

TAX RATES. In 1988 the general profit tax was 50 percent, though more favorable treatment was given to companies in the agricultural sector (40 percent) and those engaged in activities with limited profit orientation, such as public-service companies or cultural activities (10 percent). Separate statutory rules were specified for the "forerunners" of the private sector; that is, small cooperatives, artisans, retailers, agricultural small-scale producers, and employee enterprises, which paid 25-percent taxes on profits and wages.

In 1989 the tax schedule was 40 percent of the tax base until HUF 3 million, and 50 percent above. PIT applied to private entrepreneurs and small agricultural producers. In 1990 tax rates were decreased to 35 and 40 percent. To reduce the competitive edge that state companies had over private companies, the law introduced an obligatory 25-percent dividend payment on the profits of state holdings (shares of state property); some considered this an additional tax. In 1991 the tax was set at a general level of 40 percent, in line with the top marginal rate of the PIT, to synchronize the tax burden of enterprises that could be subjected to the two taxes (PIT and CIT).

In 1994 the corporate tax was reduced to 36 percent, though a minimum tax was levied on enterprises whose tax base was smaller than 2 percent of their sales revenues. In 1995 the general corporate tax was halved to 18 percent, but a supplementary tax of 23 percent was introduced on profits taken out of enterprises. The problematic two-stage corporate tax structure was scrapped by eliminating the higher rate in 1997. The tax on dividends was to be 20 percent. A 20-percent withholding on dividends applies to profits taken out of the country. It does not apply to undistributed profits, or to domestic residents who transfer them to an account kept with a domestic financial institution (Véghelyi 1997).

ALLOWANCES AND EXEMPTIONS. In 1989 the law gave many concessions in addition to those linked to foreign economic activity or foreign participation. Tax allowances for state companies were even mentioned by name in the law. In 1990 allowances began to be curtailed, and in 1992 a whole range of allowances was repealed, including the allowances for public-service companies and companies engaged in cultural activities. Depreciation rates were liberalized, and provisioning against overdue receivables allowed. The deductible amount varies from 2 to 25 percent, depending on the length of the debt. As of 1996 more favorable

rules applied to uncollectable debts, and the following year foreign debts were excluded from the categories of bad debt. In 1992 loss-carryover provisions were extended from two to five years, although a 1996 amendment allowed the tax agency to deny the option if by the third year of the commencement of entrepreneurial activity, the taxpayer had not generated sales equaling at least 50 percent of the expenses incurred in setting up the enterprise.

In 1994 the trend toward eliminating exemptions was reversed and tax allowances for employing the long-term unemployed and trainees, relief for off-shore activities, and targeted accelerated depreciation were introduced. The system of tax preferences for foreign investments was replaced by tax relief at the government's discretion. In 1996 the range of products/activities eligible for allowances was significantly expanded to exports, various investments, and economic activity in enterprise zones. The 1997 tax law guarantees certain tax allowances for a limited period to foster economic policy objectives. The tax allowances of companies with foreign participation have not changed. Depreciation rules were also changed to favor a faster recuperation of investment. These modifications in the corporate tax will cause tax losses of HUF 18 to 20 billion for the budget.

Harmonization of PIT and CIT

Recent PIT and CIT reforms have sought to harmonize tax treatment under these two laws (PIT and CIT), because the treatment of private entrepreneurs was preferential, which gave an unfair competitive edge to those who chose not to incorporate as legal persons—and because the unincorporated legal status was thought to be misused as a shield for evasion practices. High PIT and payroll tax rates, combined with CIT taxation rules, also created an opportunity, especially in small companies, to pay wages as dividends, and thus avoid social security payments.

To address the first problem, the 1997 PIT and CIT laws and rules pertaining to private entrepreneurs set standardized accounting rules for revenues, expenses, and taxable income, regardless of the legal status selected. Private entrepreneurs must now show their revenues and expenses in the same manner as firms doing single entry bookkeeping. Reporting on taxable income on the basis of identical principles allows for standardized treatment of taxes left in or taken out of the enterprise, and has a neutral effect on the incentives for capital accumulation. The second problem reflected the fact that wage earners paid a progressive PIT

(with a top marginal rate of 48 percent) plus employer (42.5 percent) and employee (10 percent) social security contributions. Dividend income paid a 10-percent tax at source—after the payment of the 18-percent corporate tax and the 23-percent supplementary tax. It was, thus, profitable to hide wage payments as distributed profits.

Harmonizing taxes on total income required coordinating the top rate of the progressive tax schedule, the average PIT burden, and the total taxes on income taken out as dividends. Under the new rules, the CIT is set at 18 percent, the highest PIT rate at 42 percent, and the tax on dividends at 20 percent. As a result, the total tax burden on income taken out as dividends now totals 34.4 percent, which is close to the highest PIT rate and slightly exceeds the average tax burden of 32 to 33 percent on incomes subject to progressive PIT.

There were still two incentives favoring distributing revenues rather than paying wages: the effects of CIT allowances, and the high payroll taxes. The allowances the law gave enterprises created an additional difficulty by increasing the attractiveness of distributing dividends rather than paying salaries. To prevent this, the government introduced an additional provision: when the ratio of dividends taken to equity is more than twice the basic interest rate of the central bank, the dividend tax goes up to 27 percent, which jointly with the 18 percent implies a total tax burden of 40 percent, close to the highest marginal PIT rate. Moreover, this income is also subjected to social security contribution payments.

With regard to the special economic conditions of private entrepreneurs (there is no separate venture property), the 20-percent tax at the source on distributed profits does not really apply, as private entrepreneurs typically have relatively small invested capital and directly and personally contribute to the profitability of enterprises. Therefore, in the case of private entrepreneurs, the concept of capital is substituted by income (personal payout) corresponding to the base of the progressive tax. Thereafter the same rules apply as for CIT: a 20-percent retention with no social security contribution applies, until dividends exceed twice the basic interest rate times the personal income used as the base, in which case treatment proceeds as above.

The standardized accounting of revenues, expenses, and taxable enterprise income—plus the introduction of the uniform 18-percent tax rate in both tax categories—made it possible to harmonize the tax burden on revenues left in the enterprise while reducing taxes and public dues. Income through dividends, or dividend-like payments, generates the same

burdens as wage income, and incentives for capital accumulation are the same for entrepreneurs under the two tax systems. The treatment of dividends payouts disproportionate to capital investment is now standardized for individuals in both tax categories. The harmonization of taxes in the two tax categories encourages entrepreneurs to choose the organizational form that best suits the size and activities of their enterprises.

Value-Added Tax

In 1988 Hungary introduced a credit-invoice type of VAT. This tax is paid by the final user, who is not entitled to a refund. Intermediate buyers transfer to the budget the difference between the tax they withhold on sales and tax withheld on purchases by their sellers.[5] Exports are zero-rated. Changes since 1988 have sought to broaden the tax base, reduce evasion, and improve basic VAT design based on experience. There has been some controversy over whether Hungary introduced the VAT too quickly (Koltay 1993) and whether this tax is recommendable to other transition economies, as opposed to relying on sales or turnover taxes (Newbery 1997). The transition experience was difficult, partly as a result of the considerable exemptions and the zero-rating that it included, itself the result of incomplete reforms of price subsidies. With the benefit of hindsight, Hungary would have benefited from an earlier introduction of a cleaner, more streamlined VAT.

Revenue Performance. The pattern of VAT revenue performance can be broken in two periods: 1988-92 and 1993-96. During the first period, revenues as a percentage of GDP dropped from 8.5 percent to 6.0 percent. During the second, revenues went from 8.1 percent to 7.5 percent. The second period was initiated with considerable rate increases and considerable cleaning of the zero-rated bracket. Still, as in the first period, it exhibited a downward trend pointing perhaps to the erosion characteristic growing unofficial activities.

Tax Rates and Exceptions. The 1988 law introduced three tax rates (0-15-25 percent). About 40 percent of household expenditures were zero-rated, because it would have been inconsistent to tax goods for which subsidies were provided. For revenue reasons, only 20 percent of VAT paid on investment goods was refunded in 1988. This restriction was eliminated completely in 1992.

Procedural provisions of the 1988 law were specified in a separate government decree, and two other decrees set the specific regulations pertaining to foreigners (for example, entrepreneurs registered abroad, diplomatic corps); further modifications were introduced in 1989. Since

the pile of legal regulations became almost impossible to follow, a new law was worked out in 1989, and came into force on January 1, 1990. The tax rates did not change, and the range of preferred, zero-percent products and services practically remained unchanged.

Mostly technical modifications to the VAT law followed in 1991 and 1992, but the new VAT law that took effect on January 1, 1993, contained significant changes. The zero-percent tax rate was maintained only for pharmaceutical goods, household electric power, and exports. The preferential rate grew to 6 percent, the general tax rate became 25 percent, and the 15-percent rate was eliminated. Further amendments to the VAT law during 1993 raised the preferential rate from 6 to 10 percent, and household electric power was included in the 10-percent rate. The VAT grew from zero to 6 percent and then to 10 percent for about 80 percent of food products. The VAT for all public services grew from 15 percent to 25 percent. Cultural goods (books, newspapers, theater, movies) became subject to taxation (6 and then 10 percent). Tax refunds for house construction/refurbishment were eliminated. For 1995—in the supplementary budget for 1994—the 10-percent preferential rate was raised to 12 percent. The VAT rate for telecommunication services and household fuel grew to 25 percent. No further changes in tax rates have taken place since.

FACILITATING TAX ADMINISTRATION AND FIGHTING THE BLACK ECONOMY. In 1994 the obligation to issue VAT invoices became general; however, it continues to be difficult to implement this provision. VAT compensation was introduced for agricultural producers; with appropriate registration and in pursuance of detailed rules, producers may ask for VAT refunds. This is a method used in other countries. It reduces the number of taxpayers the tax agency has to deal with, and, hence, administrative costs.

In 1995 rules pertaining to entities paying taxes on the basis of financial performance were restricted, and taxpayers belonging to this circle (for example, private entrepreneurs) now pay the charged VAT. This measure eliminated a rather significant possibility for abuse, which arose from the fact that the addressee of the invoice could rebate the tax immediately, while the issuer of the invoice had to pay the tax after the invoice was settled. In general, the scope of VAT refunds/deductions of enterprises was restricted; the new provisions primarily affected rules that provided legal loopholes or opportunities for abuse.

In 1996 new rules were introduced to deal with underreporting the value of transactions. The rules base the VAT due on market value, and

tax refunds on value reported in invoices. The VAT law was amended so that invoices over HUF 1 million and settled in cash cannot be refunded. This provision complements similar cost-accounting restrictions specified in the income-tax laws. To further encourage suppression of the use of cash and enforce the new legislation, incentives were granted to use electronic cards, mainly tax allowances granted to entities creating acceptance points.

The threshold for VAT reporting, to be used at the taxpayer's discretion, was doubled to HUF 2 million. The upper limit on presumptive taxation of commercial accommodation was increased to HUF 4 million. Entrepreneurs below the thresholds who choose not to file a return become quasi-end-users and are not entitled to rebates and do not charge VAT on their sales. A similar treatment applies to some services.[6] The 1996 amendment contains other minor provisions. For instance, regarding second-hand retailing—cars included—the rule has moved to taxing margins, which specifies a unique margin and eliminates tax accumulation, and helps control issuance of fake invoices.

The existing VAT system basically complies with the European Union recommendations, and the range of zero-rated goods is smaller than in most European Union countries. The government does not consider further reforms necessary. The main remaining issue is the high standard rate (25 percent) and the large difference between it and the intermediate rate (15 percent). However, due to its revenue weight, the top 25-percent rate cannot be reduced without substantial increases in the 12-percent rate or a drop in revenues. Thus, the government chose to leave things unchanged during 1997.

Excise Duties

Hungary retained, after 1988, a system of excise taxation that has generated a significant, though decreasing, revenue flow relative to GDP. Excises generated 6.1 percent of GDP in 1988 and 3.5 percent in 1996. The reduction in excise collection has been obtained mainly by adjusting duties less than inflation, and, reportedly, shrinkage of the tax base as a result of smuggling. The current level of revenue collection is still significant and compares to average European standards. The structure of excise taxation is relatively simple. Most revenues come from petroleum products, tobacco, alcohol, and vehicle registration. Hungary has avoided the dispersion into many products that characterizes other European countries and complicates tax administration. Today, excises represent

the only significant element of progressive indirect taxation, especially petroleum excises.

Dealing with the Informal Economy

The government has become increasingly aware of the need to develop instruments to reduce the size of the black economy. It is well understood that a large shadow economy increases the tax burden on those who choose to remain in the formal economy, especially wage earners. However, identifying unreported or unofficial economic activities always proves difficult, as these activities tend to be located throughout the economy, in both the formal and informal sectors. Moreover, there are likely to be strong links between the two sectors, precisely because links with the informal economy can provide a competitive edge within the formal economy. Given these difficulties, the fight against the black economy is not always successful, and is often characterized by dead ends, especially when fundamental tax parameters favor exiting the formal sector, as has been the case in Hungary.

The government realizes that success in the fight against the expansion can best be achieved by reducing tax rates, especially the PIT and the payroll rates, and broadening the tax bases. As seen above, eliminating exemptions and allowances has advanced since 1988, but has largely stagnated recently. The main stumbling block to reducing tax rates has been an inability to cut public expenditures. Moreover, it is also clear to the authorities that reducing taxes and other public dues is a necessary—but not a sufficient—condition for "bleaching" the black economy. In addition to realigning and lowering tax rates, tax rules and strict sanctioning must be mobilized to suppress the black economy. This requires strengthening tax administration.

Most proposals submitted to and approved by Parliament in 1996 and 1997, besides meeting other economic objectives, reduced the volume of taxable incomes disappearing in the black economy, and broadened certain tax bases. Some amendments to the law have been targeted to issues dealing specifically with the black economy.

The new legislation penalizes cash transactions in an effort to channel all financial transactions through the banking sector. Thus, the CIT base is being increased in the case of cash transactions by 20 percent of the net costs (without VAT), and the right to a VAT refund will be lost for cash transactions exceeding HUF 1 million. PIT rules for small-scale agricultural producers contribute to the broadening of the tax base by increasing the range of taxable incomes, without eliminating tax allow-

ances for the sector. Other rules increase the risk associated with hiding income by increasing the probability of being caught. All these objectives are supported by measures increasing the efficiency of control and reinforcing the supervising organizations.

Local Taxation

The 1990 Law on Self Governments specified the responsibilities for providing local services and listed five taxes that could be levied at the local level. These include taxes on buildings, taxes on plots of land, communal taxes on private persons and/or entrepreneurs and their employees, taxes on tourists and tourism, and taxes on industrial sales. Originally, the PIT was transferred to the municipalities, but this practice was discontinued as a result of the drive to give priority to the fiscal needs of the central government. Concerns with fiscal balance probably precluded the government from giving appropriate attention to the financing of local governments, or more broadly to reforming the fiscal relationships among the levels of government. The real-estate tax, an ideal tax for local governments, has not been properly developed. Moreover, it is not likely that this tax be an important source of revenue, given that it will take time to provide the infrastructure to collect it, and that it would only apply to households with larger than average dwellings, while excluding business ownership. As it stands today, local governments continue to rely heavily on transfers from the central government. Local revenues produce around 1.5 percent of GDP (see chapter 15).

AN ASSESSMENT OF THE REFORMS

Recent modifications to the tax system have sought to curtail the growth of the informal economy, provide incentives for savings and investment, reduce marginally the burden of taxation, and eliminate or remedy distortions in existing legislation that provided opportunities for evasion or biased the selection of organizational form. These are limited reform efforts, especially when considering that the level of tax rates and social security contributions is high. The high level of taxation combined with the a broad system of exemptions and privileges raises questions of fairness and incentives even if additional revenues go to finance social transfers.

Governments have placed considerable emphasis on encouraging investment and growth, under the arguable hypothesis that growth would make it possible to reduce rates without endangering macroeconomic

stability. However, now as in the past, the possibility of a more far-reaching tax reform is limited by the need to assure a fiscal balance consistent with macroeconomic equilibrium. This means, in turn, that more substantial tax reform is linked to the ability of the government to undertake expenditure reform, which suggests that tax reform in Hungary will continue to be fairly gradual. The current plans to phase down payroll taxes illustrate this point. In a gradual reform environment the question arises as to the sustainability of the current situation. A key concern here is the growth of unofficial practices and the informal economy.

The Welfare Effect of Tax Policy

The incidence of the tax system has become an issue of concern in Hungary. PIT and payroll taxes are high, apply to a narrow base, and place increasing burdens on the employed, as income from sources other than employment has increased by more than their tax contributions. The standard VAT rate, at 25 percent, is high even by European standards. Excises, even if their relative revenue contribution has been decreasing, are still significant. Direct taxation continues to generate the bulk of public revenues. CIT, PIT, and payroll taxes produced in 1995 around 55 percent of tax revenues. If Hungary wants to reduce the ratio of direct to indirect taxes, it should do so by reducing direct taxes. Also of concern is the perceived imbalance in the treatment of income deriving from capital and income deriving from employment.

The burden of PIT and VAT has increased over time because of rate increases and elimination of exemptions. However, when considering the welfare effect of fiscal policy, it is also necessary to take into account the impact of expenditure. Newbery and Révész (1997) have studied the welfare effects of various aspects of the fiscal system in Hungary. Their results provide greater precision to what would otherwise be an impressionistic assessment.

Newbery and Révész observe that the after-tax distribution of income has remained relatively stable, and speculate that "the evidence is consistent with, but does not definitely establish, the proposition that the tax and benefit system has provided a very high degree of insurance against shocks to relative well being, and that this insurance was excessive given the costs." This statement is based on household surveys in 1987, 1989, and 1991; it remains to be seen if this result continues to hold in the following years. If so, this would mean that the high tax rates

and revenues have gone to finance transfers that serve to maintain the distribution of income.[7]

The study also calculated the marginal PIT rates in terms of real wage income. The results show that the burden of taxation has increased in real terms, especially for low-income groups. Thus, for instance, a worker receiving half the average wage faced a zero marginal tax rate in 1988 and 1989, but in 1995 and 1996 a marginal tax rate of 32 percent. This result follows from two facts noted above: marginal tax brackets were not adjusted for inflation, and the tax bracket bands were widened, while the top marginal rate was somewhat reduced.

The same authors also have calculated the combined PIT, payroll, and consumption taxes for different levels of income and types of household. The average tax, as a percentage of gross labor cost for a family in the bottom quintile with two children, increased from 37 to 54 percent during 1988-96, while for a family in the top quintile it increased from 48 to 63 percent for the same years. The relative increase for the lower quintile was much greater. The data show that the spread between average tax rates on the lower and the higher quintiles is only 9 percentage points. The range is even narrower for marginal tax rates, which are 68 percent for the lower quintile and 74 percent for the top quintile. This means that the progressivity of the combined tax schedule is quite small. This should not be a surprise, given the payroll and indirect taxes do not have progressive scales, and, as noted, the ranges of the PIT brackets were widened.

Reforms in 1996 and 1997 sought to address these issues, but have done so only marginally. The main achievement was reducing the top marginal PIT rate from 48 percent to 42 percent. Efforts to simplify exemptions were not significant. Today, as in the past, tax allowances do not have clear economic and social objectives. Attempts by the government to introduce family taxation or family allowances (consideration of dependents—including especially children—in calculating the PIT payment obligation) were removed from the agenda due to the scarce resources available for such purposes. Instead, Parliament decided to increase the family allowance, which is not truly a substitute for the original purpose.

Unfortunately, a system of fair and proportionate taxation has yet to become a reality, due to extensive exemptions and allowances, high tax rates, and the continuous increase in effective tax rates. The expansion of the black economy, the failure to adjust tax brackets to take account of

inflation, and stagnant wages have raised effective taxation on those who remain in the formal sector. Tax-rate reductions and expansion of the tax bases continue to be central issues of tax modernization.

Economic Growth, Investment, and Savings

Hungarian governments have shown steadfast commitment to using the tax system as a mechanism to promote investment and savings to contribute to economic recovery. They see recovery, rightfully, as the way to generate the resources necessary for long-term fiscal equilibrium while avoiding undue growth of external and internal indebtedness. Recent reforms seek to penalize consumption and create a more favorable and neutral tax environment for enterprises, while maintaining incentives to investment. Specifically, these reforms impose small taxes when income is used to finance accumulation in the domestic economy, and large ones when it is used for consumption or taken out of the country. The government has used wage as well as tax policy in this endeavor in an effort to increase the funds available for investment in enterprises.

Unfortunately, no systematic studies have been undertaken to evaluate the impact of government policies to encourage investment and savings. A cursory look at the national accounts statistics shows that gross domestic savings and investment as a percentage of GDP may have bottomed out around 1992-93.[8] But many factors other than tax policy could account for this behavior, including the effort to reduce expenditure and the fiscal deficit, and the reduction of wage levels in the public and enterprise sectors. Much less can be said about the effectiveness of the narrower objectives in terms of employment, regional, or sectoral allocation of resources, or incentives to promote research. The design of the Hungarian CIT has been extensively criticized for its extensive use of exemptions, some of which—such as the preferential treatment given to foreign investment—have proven ineffective and subject to abuse. The reduction of the tax rate, along with the preferential treatment given reinvested income, offered an opportunity to simplify CIT design that was not taken. Rather, additional preferential provisions, supposedly temporary, were provided.

The Hungarian practice goes against conventional wisdom, which is rather skeptical as to the benefits of tax incentives in fostering investment, and sees them as distortionary, possibly leading to allocation of resources that yield less than what it is socially desirable.[9] As to savings, the general opinion seem to be that as long as interest rates are positive, further increases in effective interest rates do not increase savings.

Besides, other factors are bound to influence savings just as much, such as, in Hungary, the failure to establish a precise link between pension and social security contributions and benefits.

There is also considerable skepticism as to the existence of a tight link between short-term investment and output growth.[10] An alternative view posits that growth follows from the adequacy of the overall economic environment—including some degree of stability in tax norms. Then, investment and savings will follow. Efforts to induce growth in Hungary are not limited to the use of the tax system to foster investment, but cover a broader range of instruments including reducing public expenditure and the fiscal deficit. Recent developments show the Hungarian economy on its way to recovery; inasmuch as this is so, investment distortions induced by the tax regime may be of a second order. Still, Hungary could benefit from rethinking its approach to corporate income taxation.

Fiscal Needs and the Future of Tax Policy

It was mentioned above that high levels of public expenditure during the post-1988 period put pressure on tax-revenue generation, specifically on PIT, VAT, and payroll taxes. The increase in effective tax rates that took place did not lead to a proportionate increase in revenue, signifying, arguably, an erosion of the tax base, partly due to weak tax administration. After the 1995 fiscal reforms, the level of public expenditure fell considerably, from 62 percent of GDP in 1994 to 50 percent in 1997. Even so, Hungary still continues to have a higher ratio of public expenditure to GDP than neighboring Poland and the Czech Republic, even if now only marginally so.[11]

The drop in expenditure has not led to a concomitant drop in tax revenues, but rather in non-tax revenues and the fiscal deficit. The drop in non-tax revenues does not create fiscal problems, if accompanied by a corresponding drop in expenditure. Overall this has been the case in Hungary. However, a significant part of non-tax revenues is generated by central budgetary institutions, extra-budgetary funds, and self-governing social security funds that all have some degree of budgetary autonomy. From 1994 to 1997, revenues for central budgetary institutions and extra-budgetary funds dropped from 6.3 percent of GDP to 2.7 percent. Corresponding expenditures dropped from 8.3 to 3.0 percent of GDP during the same period.[12] As long as a balance is maintained, the drop in non-tax revenues will not be a source of fiscal difficulties.

The share of tax revenues as a percentage of GDP has fallen somewhat, from 38 to 36 percent during 1994-96; a further decline took place in 1997. The revenue system continues to rely on the CIT, VAT, and payroll taxes. In the coming years, a revenue decline is likely to take place in trade taxes, which continue to be uncharacteristically high. Excises are also high, and smuggling increases pressure to reduce them.

In deciding on recent tax-policy changes, the government has considered that stable long-term solutions to overcome economic difficulties must follow from coordinated reforms affecting the money and capital markets and public finances. The overriding priorities include gradual but irreversible curbing of inflation, creation of conditions supporting sustainable economic growth, and maintaining a fiscal position consistent with macroeconomic equilibrium. Given the current level of expenditures and available financing, the additional tax revenues arising from increased economic performance and efficiency can only allow it to leave tax levels unchanged.

Thus, the policy of the government has been to delay tax reform until expenditure reduction and economic growth allow a safe reduction in tax rates without endangering the fiscal balance. The government has never really taken seriously the possibility that reducing tax rates might generate an increase in revenues from improved compliance and decreased evasion. After all, what matters is the relationship between benefits and costs, and this would require increasing the cost of evasion, particularly by improving the quality of tax administration. Changes in that regard are underway, but not yet here, and their introduction will take time.

Thus, more substantial tax reforms are inevitably linked to an effective reduction of expenditures. Since the reduction of public expenditures will most likely be gradual, further changes in the tax system also will be gradual. The same will happen with regard to payroll taxes. Gradual change implies, however, that the tax framework will continue to change periodically, and that the objective of a stable set of tax rules has been postponed.

If high tax rates are maintained over the medium term, it may also be difficult to reduce exemptions and special treatment, precisely because these are often introduced as a response to the high levels of taxation. Under these circumstances, aside from the issue of fairness of the tax system, it is relevant to ask whether the current situation is sustainable given the incentives it provides for underground and unofficial economic activities. It must be noted that the corrective measures introduced to curb unofficial economic activity are likely to have only limited effects.

Often corrective measures of this type create additional distortions. In any case, all of this puts additional pressure on tax administration. One such example is the efforts at realigning PIT and CIT rates. Clearly, the new design makes it somewhat more difficult to extract wage payments as dividends. But it continues to be attractive to hide wage payments as a different type of payment (subcontracting, services, etc.) The penalties on cash transactions provide another example of a policy measure that appears attractive, but to which true tax evasion can easily adjust, again increasing tax-administration costs.

AN AGENDA FOR MEDIUM-TERM CHANGES IN THE TAXATION SYSTEM

We can classify the main issues that will define the agenda over the medium term under five headings: fairness, payroll taxation, local taxation, international harmonization, and tax administration. Each is discussed below.

Fairness

The efficiency of the tax system is largely influenced by justice as perceived by taxpayers in terms of fair and proportionate taxation. The key priority here is the continued reduction of tax rates. Ideally, the 1997 reduction should continue in the years to come. The final goal is a gradual reduction of tax progressivity by bringing the lower and the upper brackets closer and reducing the number of brackets to three or four. Most taxpayers should fall in the lower bracket, and for the majority, taxes should be almost linear. A further reduction of the corporate tax rate is not advisable, and the emphasis ought to be on gradual curtailment of tax allowances. However, revenue constraints make it difficult for the government to commit to a credible reduction schedule over the medium term. If the tax-rate reductions are not accompanied by the appropriate fiscal balance, the risk is that they may not be sustainable, leading to undesirable reversals.

An open issue relating to "fairness" and the PIT is the treatment of dependents. Family taxation is not likely to be on the reform agenda in the medium term. However, it would still be possible and desirable to tailor the PIT to take account of the relative burden of dependents. This change could be done without an additional transfer from the budget (sharing in the overall tax pool) so that part of the taxes due are left with the taxpayer. Hence, the tax allowance would both encourage active involvement by individuals and strengthen the principle of self-support.

Payroll Taxation

Payroll-tax reforms are tightly intertwined with social-expenditure reform in areas such as pensions, health care, sick pay, unemployment, and so on. As it stands now, the plan is to reduce payroll taxes gradually as expenditure reforms come into place. Besides reducing the level of payroll taxes, this reform should establish a tight link between contributions and benefits. To do so will, however, require substantial institutional investment. If successful, the reforms will reduce disincentives to participate in the formal economy and consequently evasion, and could have a positive effects on savings (see chapters 7, 8, 10, and 11).

Local Taxation

Just as lowering PIT and payroll tax rates serves to decrease the ratio of direct to indirect taxes, it is also necessary to reduce the ratio of central to local taxes. Increases in local taxation, however, have to be balanced with reductions in central taxation so that the overall tax burden does not increase. The central concern will be to not endanger the role of the government in equalizing income across regions. This means that the shift away from central taxation has to be done within the context of a reform of the intergovernmental fiscal system. Reform should include the allocation of expenditure responsibilities among tiers of government, a mechanism for financing them, and include clear incentives for local governments to improve fiscal management.

Real estate will eventually provide a significant share of local taxes. However, standard and comprehensive property taxation takes a long time to implement. Today the weight of local taxation would be greater if property taxation was used more. However, a general tax on real estate larger and more valuable than the average seems applicable, and would be a further source of local tax revenues. This requires up-to-date real-estate registration and a law specifying the rules of evaluation. Thus it is necessary that prior to the standardization of the real-estate tax, an evaluation system be designed and tested. Taxing real estate owned by businesses is not likely to be on the agenda, as it is believed that such tax would reduce the resources available for capital accumulation.

International Harmonization

To ensure the consistency of the tax system with Hungary's commitments to international integration, Hungary has moved its tax system closer to international standards. As integration into international mar-

kets increases, further adjustments will become necessary. This is the case of the VAT, whose standard rate, 25 percent, would have to be reduced, while possibly increasing the12-percent middle rate. Reducing excise rates also may have to be reconsidered to prevent revenue slippages due to smuggling.

Tax reforms and modifications should be consistent with (or at least should not hinder) Hungary's integration aims. From a legal standpoint, this primarily affects customs duties and indirect taxes, but harmonization pertains to all major taxes from the practical point of integration with the world economy. Hungary's European Union integration would first of all require the reduction of the 25-percent upper VAT rate. While this would be highly desirable, the stumbling block is the revenue effect. Over the next few years customs fees and related duty rates will be gradually reduced under international agreements (World Trade Organization, European Free Trade Association, and Central European Free Trade Association). In terms of excise taxes, the objective is to continue harmonization with the European Union.

Tax Administration

Lowering tax rates and eliminating exemptions can reduce incentives and opportunities to hide income. But the benefits of these efforts will not be fully realized unless buttressed by substantive work in improving the supporting legal framework for tax administration and its practice and performance. These issues are discussed in the next chapter. Efforts to reduce the size of the black economy will not succeed unless the legal tools are provided and solutions found to serious constitutional limitations on enforcement powers. Overall, it is necessary to provide a legal background to assure a sustainable tax administration operation.

Moreover, it is urgent to proceed with a comprehensive review of the material and personal resources of control in the short run, and develop a strategy for institutional investment in the long run. This must include attention to central issues, such as the relationship between performance and remuneration, to overcome the high mobility of personnel that has thwarted building up the professional capacity of the tax agency, now a training ground of experts for the private sector. Another issue that needs immediate attention is the settlement of legal disputes in connection with taxation. Revising the appeals process, beginning by simplifying the supporting legislation, could reduce the administrative burden of the tax

agency and improve taxpayer perceptions of the fairness of the tax system.

CONCLUSION

The tax reform of 1988 has led to a tax system broadly compatible with market principles and European Union practices, especially in areas such as VAT and CIT in which there were readily available models. The path followed since 1988 has been gradual and was sometimes accompanied by reversals; a by-product has been unstable tax norms. It is likely that this pattern will continue as Hungary makes progress in addressing the remaining difficulties. The basic reason for this is the fact that tax reforms are linked closely to expenditure reform, which itself may be a gradual process.

This chapter has identified some of the issues remaining, with emphasis on the need for significant reductions of direct taxation and payroll taxes, complementary reduction in indirect taxation, strengthening of local taxation within the context of a stable framework of intergovernmental finance, and the strengthening of tax administration practices. Reform of the pension and social security systems is central to improving the tax environment and improving the structure of economic incentives.

This chapter also has emphasized the need for continued reduction in exemptions, allowances, and special treatment, an effort that should parallel tax-rate reductions. PIT and payroll tax bases continue to be narrow. Reducing tax rates and special treatment would set a basis from which to address the growing concerns of the black economy, and greatly increase the effectiveness of future administrative reforms. Hungary stands out in its willingness to use the CIT to foster investment and other objectives (Dethier and John 1998). It is now time to focus on stable and transparent rules, and simplify the regime, as growth is likely to depend more on the overall system of economic incentives.

NOTES

1. Koltay (1993) provides a description of the early reforms.

2. In 1992 the share of gross income subject to taxation stood at less than 60 percent of gross incomes, excluding social benefits provided in kind.

3. This calculation assumes that the average marginal PIT rate is 33 percent, and that pension contributions cannot be deducted from the base. After 1997,

pension contributions are exempt. After 2008, benefits would be taxed. It does not take account other possible discrepancies in the respective bases.

4. This percentage is low when compared with Poland (3.01 percent) and the Czech Republic (4.45 percent) in 1996.

5. In the entire chain of production and sales, taxpayers may deduct VAT paid when purchasing goods from the VAT added to their invoiced revenues. In this process the budget gets hold of the tax revenue only temporarily, as long a subsequent taxpayer deducts the paid VAT from his revenue. In this manner, enterprises must pay tax after the added value by their activity in the price of the services or products. The subsequent taxpayer may also ask for the refund of VAT invoiced to him—that is, he accounts the net value of the purchased product, service as costs—and will then charge the tax to the net tax base increased with his own added value. If the product is purchased by a non-taxpayer consumer—who is not eligible for refund—the process comes to an end; with the payment of the VAT by the last taxpayer the tax is terminally channeled to the budget.

6. Taxpayers engaged in activities that are subject to VAT and also provide services that are exempt from taxation account for the two activities differently in terms of VAT.

7. This result was obtained by increasing the transfers from the government to the households. Data show that gross social benefits in cash and in kind as a percentage of GDP went from 25.2 to 32.7 percent during 1988-93.

8. Gross domestic investment bottomed out in 1992 at 16.08 percent of GDP and gross domestic savings at 11.75 percent in 1993. The two ratios stood at 23.27 and 22.49 percent respectively in 1996.

9. For a review of saving and investment and their relationship with policy, see Schmidt-Hebbel, Serven and Solimano (1996). Apparently, the verdict is more sympathetic when incentives are targeted to specific expenditures, such as research and development.

10. For a review of this issue, see Easterly (1997).

11. In 1996, public expenditure/GDP was 48.7 percent in Poland and 45.9 percent in the Czech Republic.

12. Data from Cottarelli and others (1998).

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18 Tax Administration during the Transition: Coping with Legal Changes and a Shrinking Base

Zoltán Pitti and Jaime Vazquez-Caro

This chapter examines the problems posed by the implementation of tax policy during the transition in Hungary. Tax administration is viewed as a series of legislative actions integrated into an operational environment by the efforts of the management of the tax office. The discussion centers on the Tax and Financial Control Office (APEH)—Hungary's main tax agency—but many general observations are also applicable to the other two Hungarian collection agencies—the Customs Office and the Health Insurance Fund (which collects on behalf of both social insurance funds). The first section describes the general economic and legal environment in which tax administration operates. The second section describes the objectives, strategies, and tasks of the administration and the performance of the system. The third section provides comments on the administrative implications of the legal mandate.

With some variants—and the exception of value-based property taxes, which were not considered possible because of the lack of fiscal cadastres—Eastern European tax systems adopted Western European models based on a mix of personal income tax (PIT), value-added tax (VAT), social security contributions, and a relatively unimportant corporate income tax (CIT).

Hungary's tax laws have been revised almost yearly. Average rates of social security contributions, PIT, and VAT have increased to very high levels during the 1990s. This has raised collection costs, induced tax evasion, and led taxpayers to increasing judicial challenges of the tax authorities. At the beginning of the transition, generous tax holidays were offered to attract foreign investors, but this practice has been reduced. Gradually, legal definitions of tax bases have been broadened. The general perception is that the legal tax framework is unstable.

The new tax administrations of Central and Eastern European countries have developed in different ways. Countries such as Poland, Ukraine, and Slovenia built their administrative systems around existing local tax offices. In other countries, such as Hungary and Latvia, an intermediate (county or state) level was established as the key operational

unit to deal with larger numbers of taxpayers. Finally, in other countries, such as Croatia, systems were defined centrally. In all countries, the new management had to go through a learning process to understand and address the fundamental issues faced by tax administration in market economies. Such a process includes defining an evasion control strategy, designing a unified master plan for information technology, allocating the scarce resources available to the agency and, in the case of Hungary, managing all operations at the county level.

During the socialist period, tax administration in Hungary was a relatively simple business in terms of clients and numbers of transactions. Taxation essentially amounted to retaining a share of the profits of state-owned enterprises. Tax administration monitored private transactions closely and was implacable with those private entrepreneurs who showed atypical signs of wealth. When this occurred, the administration had the power to confiscate property.

The transition from a centrally managed data system, which focused primarily on monitoring financial transfers of state-owned enterprises, to a tax system that dealt with the compliance of about 4-million taxpayers, millions of VAT refunds, and hundreds of thousands of beneficiaries of transfer payments, was not without design and implementation problems. After a decade, this transition still remains unfinished.

An additional difficulty arose from the fact that Hungary chose to adopt an integrated fiscal approach and include, as part of its financial administration, managing the accounts of beneficiaries of public transfers. The tax authority, therefore, now has to handle a heavy volume of expenditure outflows. This means that the scale of operation of tax administration has probably increased one-hundred-fold compared to the socialist period, requiring massive modernization efforts.

THE ECONOMIC AND LEGAL ENVIRONMENT

Tax-administration modernization efforts took place in a rapidly changing and complex economic environment that was characterized by rapid private-sector development, recession then stagnation, declining public revenue, and "informalization" of economic agents. In an environment of gross domestic product (GDP) decline or stagnation—as observed in Hungary during 1989-96—taxpayer compliance tends to weaken. This translates mainly into arrears, increasing to sometimes uncollectable levels, and taxpayers dropping out of the formal economy. Administration thus becomes a harder task for the authorities. In addition, as inflation

has been relatively high during the period (figure 18.1a) this has generated moderate Tanzi-Oliveira effects[1] on all payments that are not made current.

The opening up of the economy (figure 18.1b) has also affected tax performance, as VAT revenue was affected by the increased flow of imports and exports, and income tax receipts, in particular CIT, increased capital flows. Open unemployment (figure 18.1c) and the development of an informal sector (correlated to unemployment when the unemployed become informal entrepreneurs) tend to increase the prevalence of evasion practices for all taxes.

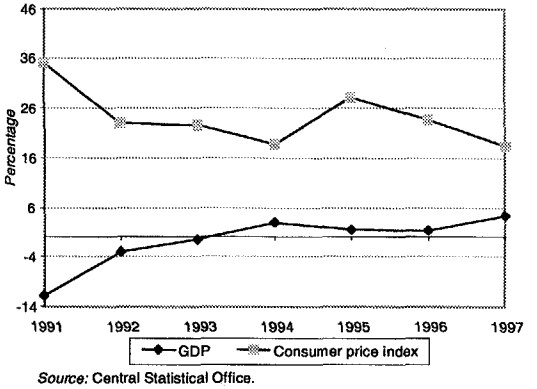
Because of Hungary's strategy for dealing with bankruptcy and liquidation (Gray, Schlorke, Szanyi 1996), many companies went out of business. Widespread losses were reported on the tax returns of both public and private companies during that period (figures 18.1d and 18.1e). There was, thus, both a serious reduction of tax bases and revenues, and a need to increase administrative controls.

State ownership dropped from approximately 80 to 30 percent of total assets in 1996 (figure 18.1f). This has generated large privatization revenues for the fisc (chapter 12). On the other hand, many assets were acquired by foreign investors taking advantage of initially generous (and difficult to control) tax incentives. Foreign owners have the means to use sophisticated measures to avoid taxes legally—or sometimes illegally. Tax administration has had to adjust to sophisticated tax avoidance on the part of large private operators. Finally, with the market economy, a large cash economy develops on a scale that is difficult for tax administration to control. As indicated in figure 18.1g, the ratio of cash to total money supply was about 22 percent in 1996.

In addition to this difficult external environment, tax legislation in Hungary has created specific difficulties for tax administration. The Hungarian system follows the universal declaration approach for personal income taxation. This has meant processing a very large number of tax declarations, which exceeded APEH's information-handling capacity. The adopted VAT system was a multiple-rate tax with credits for purchases ("quasi-money" to be used by VAT payers). Tax administrators had to face an environment plagued with fraud. Many taxpayers obtained fraudulent VAT receipts to reduce their obligations. Some went even further, creating chains to obtain refunds based on these fake invoices. The large number of tax holidays and tax exemptions authorized by the laws generated many individual demands for exemption, making the system opaque and hard to interpret.

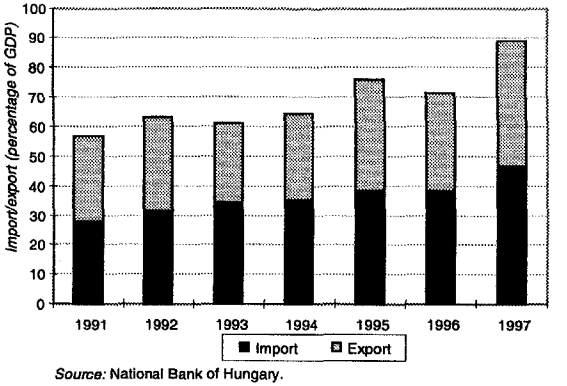
Figure 18.1 *Economic Environment of Tax Administration*

Figure 18.1a ***Real GDP/Consumer Price Index***



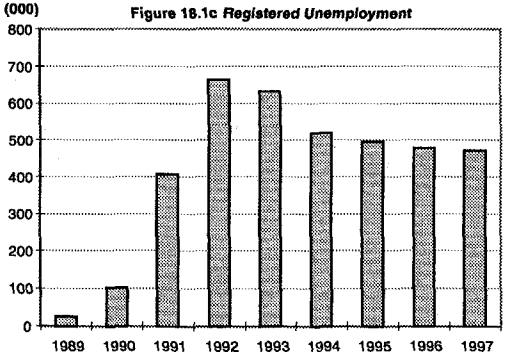
Source: Central Statistical Office.

Figure 18.1b ***Openness of the Economy***



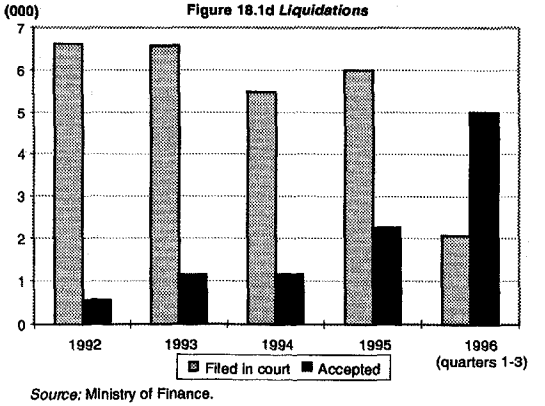
Source: National Bank of Hungary.

Figure 18.1c ***Registered Unemployment***



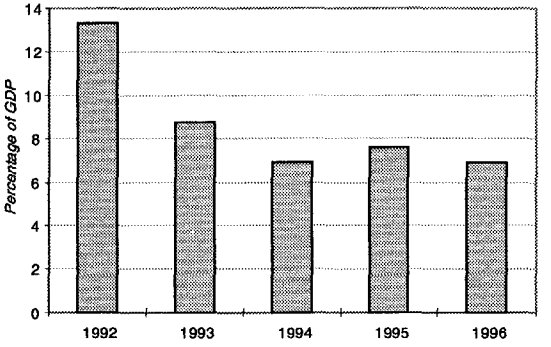
Source: Central Statistical Office.

Figure 18.1d ***Liquidations***



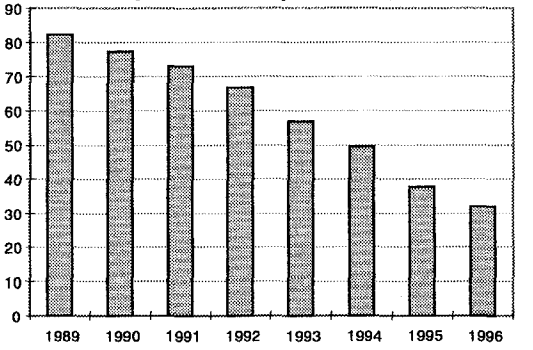
Source: Ministry of Finance.

Figure 18.1e ***Gross Losses of Enterprises***



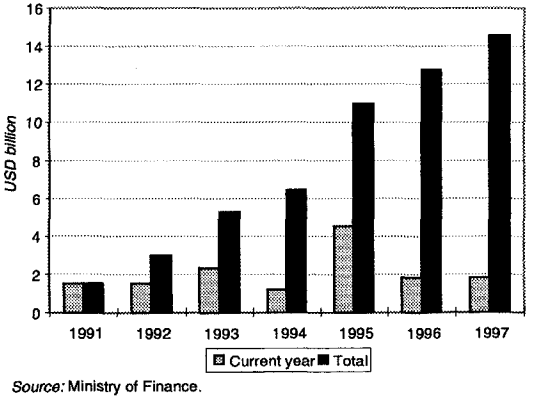
Source: Ministry of Finance.

Figure 18.1f ***Percentage of State Property***



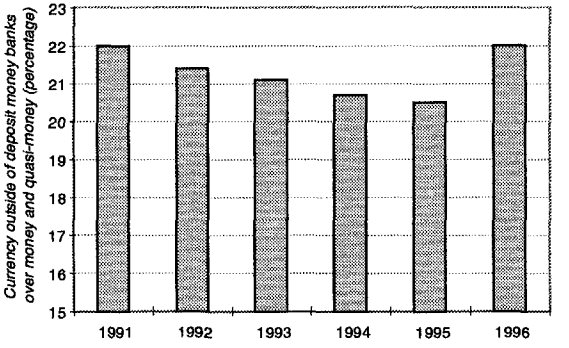
Source: Ministry of Finance.

Figure 18.1g ***Foreign Direct Investment in Hungary***



Source: Ministry of Finance.

Figure 18.1h ***Cash Economy Indicator***



Source: International Monetary Fund (1998).

Today, after having made substantial investments to address these issues, APEH is still struggling with the challenge of storing and processing the information provided by the very large number of persons filing PIT, and controlling millions of VAT refund requests. In the initial years, the challenge created by these storage and control problems has prevented the administration from focusing properly on other core tax-administration functions, such as taxpayer services, audits, and investigation of taxpayer compliance. Modest success has been achieved in controlling arrears. But APEH has not yet developed adequate management tools to deal with issues of efficiency, effectiveness, and integrity. These problems have translated into a decline in collected taxes as a percentage of GDP—in spite of an overall increase in rates and a broadening of tax bases—that is indicative of a serious compliance problem.

TAX-ADMINISTRATION MANAGEMENT

During the last few years, significant advances have been made in strengthening Hungarian tax administration. APEH was reorganized along functional lines. The Ministry of Interior office that produced statistical and accounting services on local governments (SZTADI) was made part of APEH. Directorates and local tax-office functions at the county level were integrated into APEH. The Budapest county office (by far the largest in the system) was restructured. A large taxpayer unit (LTU) was also created for Budapest, and APEH shed non-tax functions, such as economic and financial auditing of state enterprises so that it could focus on its core business.

Strategic Management

More recently, APEH's management has developed a strategic agenda. Strategic planning—including the definition of a comprehensive business plan and an information technology strategy—has been, for the institution, a learning process.

LTUs have been adopted by many countries to ensure that the bulk of tax revenues are collected. In Hungary, the LTU combines both compliance and enforcement functions for a small number of important taxpayers. In Hungary, large taxpayers are not as significant as in more advanced economies. This is because large (formerly state-owned) enterprises have disappeared due to bankruptcy or restructuring (or continue to generate sizable losses, as do the Hungarian Railways) while the new large taxpayers, usually associated with foreign investment, have been

granted temporary tax holidays that still affect their contribution to the public coffers, or are exporters and, therefore, request VAT refunds.

The LTU started operation in early 1996. Large taxpayers are entered into a LTU roster based on their yearly turnover. There are 320 large taxpayers that pay around 20 percent of total tax revenue. The highest payments to the LTU are excises and withholding of PIT of the employees of those large corporations. All LTU payers are audited every second year. The issue of arrears, critical a few years ago, has now virtually disappeared. In the process, nearly 3 billion forint were collected. The issue of fraudulent refund requests has disappeared. However, the main problem faced by the LTU is tax avoidance (termed "creative accounting" in Hungary). The new relationship of APEH with these large taxpayers has brought about self-assessed corrections of a magnitude equivalent to those of collected arrears.

Although its significance is less important than in industrialized economies, the establishment of the LTU was a positive step. It established a long-term institutional relationship between APEH and the most significant taxpayers, who are also the largest beneficiaries of tax breaks and refunds. In addition, because of its modest scale, the LTU establishment permitted the implementation of the first electronic filing test, a modernizing strategy promoted by the Office of the President. Electronic filing still faces legal hurdles in Hungary—the law requires a written document signed by the taxpayer—but it was possible to create special agreements between APEH and taxpayers filing electronically that allow signatures to be added later based on documents produced by APEH.

While efforts with large taxpayers have been successful, services for other taxpayers have lagged, mainly because management insists that all returns be stored and processed. The manner in which services to individual taxpayers are being provided does not seem to indicate that the strategy is client-oriented. For instance, APEH is very tolerant of commercial banks reporting erroneous tax-identification numbers for payments received, even though this can create false arrearages for citizens who have paid their taxes. The issue of the taxpayer identification number (TIN) has also created a number of problems that can be expected to affect the audit function of APEH. Taxpayer services have only recently begun to be provided in local offices.

Compliance Administration

The implementation of tax legislation based on market principles has required substantial investments to modernize operational facilities. Ini-

tially, investments were made to handle the massive surge in the number of taxpayers and, subsequently, to accommodate periodic demands from the government to the administration to handle all the filing and payment processing. In this regard, the decision to handle the bulk of taxpayers at the county level was judicious. However, it has also institutionalized inefficient processes because the system was forced to handle a large number of small taxpayers. APEH successfully handled the increase in the number of taxpayers during the rapidly changing 1989-97 environment—despite a sizable staff migration to the better-paying private sector. The downside is that this effort has mobilized most of the managerial and technical capacity of APEH and that, judging by results, other areas of tax administration, until just recently, have suffered.

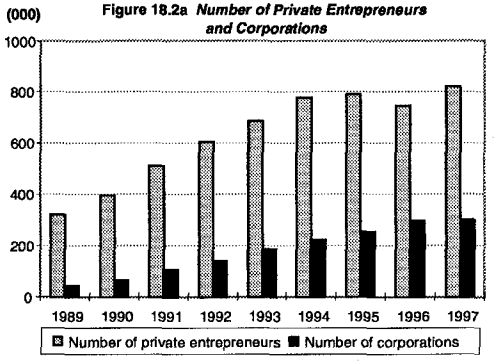
Figure 18.2 presents indicators of tax administration related to volume of operations, compliance, enforcement, and audit. The growth of the private sector (figure 18.2a) has created processing problems and generated a need to develop an audit capacity to monitor compliance. The sudden increase in the number of PIT declarations from zero to 4.8 million in 1988 and 4.2 to 4.4 million on average in subsequent years (figure 18.2b) constituted a very demanding environment for APEH.

APEH has developed and put in operation, under existing technology, software modules for registration, declaration, and taxpayers' current account balances, as well as a tax-revenue collection system through commercial banks and post offices, using the interbank payment (giro) system. These implementations were done successfully, but such investments had the drawback of perpetuating an obsolete system and compromised broader reform objectives. Instead of focusing on developing new software applications, the new hardware strengthened the old system. The large number of computers initially purchased were used merely to run basic routines dealing with data capture from tax returns and capture of payments using the old software applications. APEH focused only on managing the tremendous growth in taxpayer numbers, but this focus would have been, in part, unnecessary if the formal obligation to declare had been more rationally defined.

The design of a taxpayer's current account balances satisfies accounting requirements; it covers all possible taxpayer credit and debit transactions for all tax liabilities. There are, however, flaws in the automation of procedures that compromised the accomplishment of objectives. Under the existing centralized technology, information is entered, stored, and processed for very diverse purposes. The main flaw in the system is that statistics are given priority over taxpayer services.

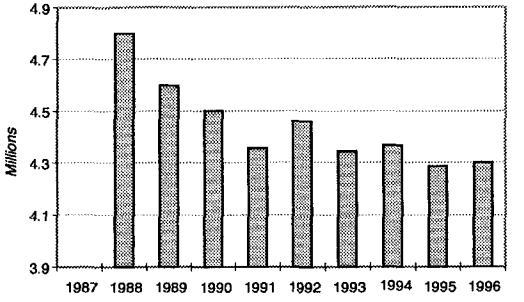
Figure 18.2 *Operational Indicators of Tax Administration*

Figure 18.2a ***Number of Private Entrepreneurs and Corporations***



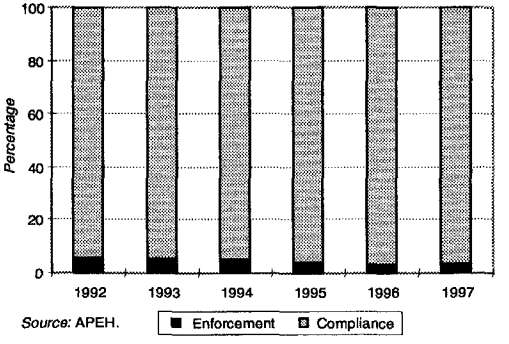
Source: APEH.

Figure 18.2b ***Number of PIT Declarations***



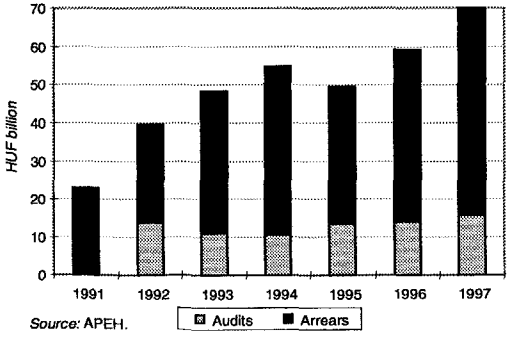
Source: APEH.

Figure 18.2c ***Collection: Compliance Versus Enforcement***



Source: APEH.

Figure 18.2d ***Tax Enforcement*** **(payments)**



Source: APEH.

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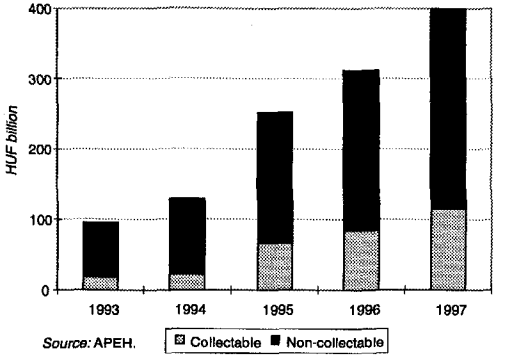
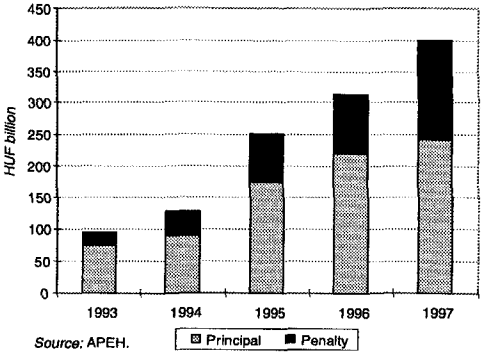
Figure 18.2 (continued)

Figure 18.2e *Collectable and Non-Collectable Arrears*



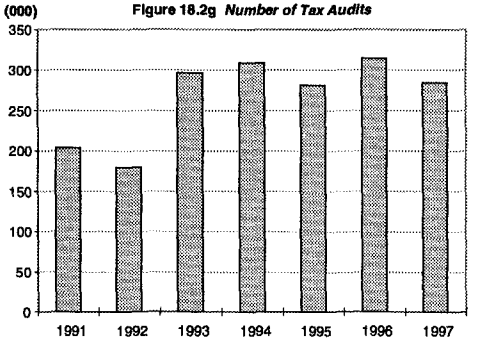
Source: APEH.

Figure 18.2f *Principal and Penalty Arrears*



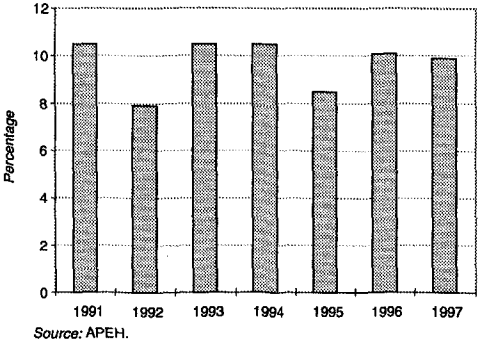
Source: APEH.

Figure 18.2g *Number of Tax Audits*



Source: APEH.

Figure 18.2h *Audits/Number of Taxpayers*



Source: APEH.

Individual accuracy is of lesser concern. Moreover, delays in transferring debit and credit information caused by centralization, and the high number of processing errors, creates serious problems.

The registration system to support this function comprises the inclusion and proper categorization of taxpayers on the tax roster, and an assessment of their capabilities and business credentials for purposes of controlling VAT and other tax refunds. Problems with the registration system have been aggravated by an obligation, resulting from a ruling of the Hungarian Constitutional Court on the protection of privacy rights, to issue TINs different from the personal identification numbers (PINs) used for civil registry purposes.[2]

The investments made by APEH, which are not yet complete, will produce a system capable of storing basic taxpayer data (registration, declaration, payment, self-audit, and assessments resulting from audits) for all taxes in the local office of the domicile of each taxpayer, with a backup at the central level. The current account also will automatically have the capacity to determine interest outstanding at the moment of payment. It will be possible to know about overdue balances immediately after entering a transaction. APEH will, thus, be able to provide much better services to taxpayers, and tackle the issue of enforcement of tax arrears through structured, computer-generated collection reminders—a cash-management tool.

Enforcement Strategy

Tax arrears have grown considerably and informal activities (estimated to account for about 30 percent of GDP) have been uncontrolled for several years. The cost of overlooking the enforcement side of tax administration, a major requirement for implementing a system based on voluntary compliance by a large number of taxpayers, has been high. Management's lack of capacity to deal effectively with tax evasion has made investment decisions more complicated and costly.

The growth in tax arrears and evasion reflects the economic situation in general, but stems also, in part, from APEH's incapacity to detect them in a timely fashion. The share of tax collection originating in enforcement actions is very low compared to that resulting from voluntary compliance, as shown in figure 18.2c. This outcome is indicative of low administrative performance: it reflects APEH's low institutional capacity to screen evaders hiding in the informal sector of the economy or control arrears. Tax payments resulting from arrears (late payments) are much higher than payments resulting from reassessed audited returns (figure

18.2d), even though a large number of audits have been performed, both in absolute terms and relative to the number of taxpayers (figures 18.2g and 18.2h). This is indicative of APEH's low institutional auditing capacity.

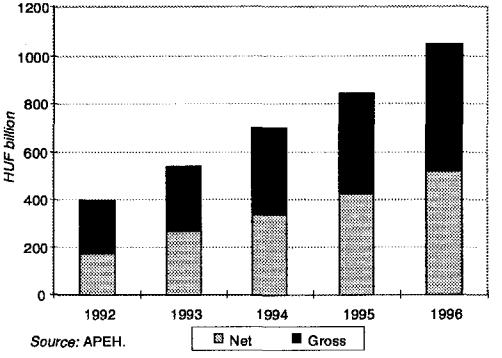
The problem is that evasion control still lacks a global strategy. Tools used to enforce compliance and check evasion cannot be effective without well-planned targeting of possible evaders and a clear selection methodology. In Hungary, these tools include audits of individual tax types and comprehensive audits conducted at the premises of the taxpayer or external audits; simplified audits (which essentially consist of a comparison of taxpayer data available in the computerized database with the tax return or internal or desk audits) and operative controls, including trial purchases to verify issuance of invoices, closure of businesses repeatedly found to be selling without invoices, and checking taxi meters and cash registers; preventive investigations; and cash-flow checks.

The case of value-added taxation is perhaps the most interesting because of its multiple administrative aspects. The graphs in figure 18.3 present a summary of VAT administration parameters. The lack of proper control of VAT refunds became a major issue in Hungary in the mid-1990s. Fraudulent receipts were issued by some taxpayers so their accounts could be credited. In some cases, taxpayers attempted to *collect back* VAT they had never paid. Cheating with refunds became almost a national sport. APEH management began to tackle the issue in 1994 when the problem reached a critical proportion in terms of total VAT collected. In addition to reducing the frequency of declarations for smaller taxpayers, a computer program was used to screen refund requests for possible fraud or inaccuracy. The amount filtered by the system is low, but apparently growing (see figure 18.3d). Unfortunately the procedure does not have the capacity to find out whether the amount credited and being refunded has been paid to the Treasury by the taxpayer issuing the receipt. This is especially problematic in the case of payments at customs, as taxpayers have to provide proof of payment in a rather complicated process.

Merely targeting refund requests overlooks the fact that all fraudulent credits affect VAT collection equally. Many taxpayers report VAT at zero or close to zero, knowing that the probability of detection is smaller for them than for those requesting refunds. An important tendency is that the greater proportion of VAT is actually paid at customs and credited afterward.

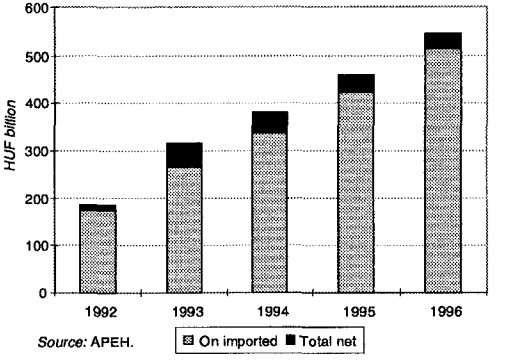
Figure 18.3 *Administration of Value-Added Taxation*

Figure 18.3a ***VAT Collection***



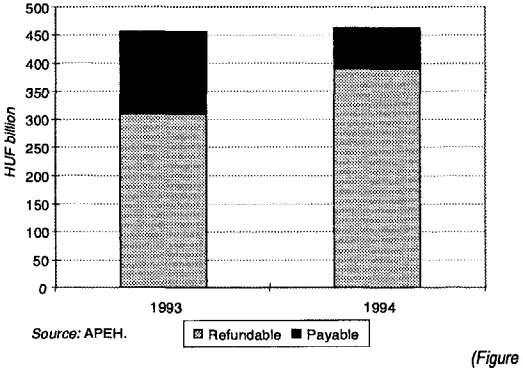
Source: APEH.

Figure 18.3b ***VAT Paid on Customs***



Source: APEH.

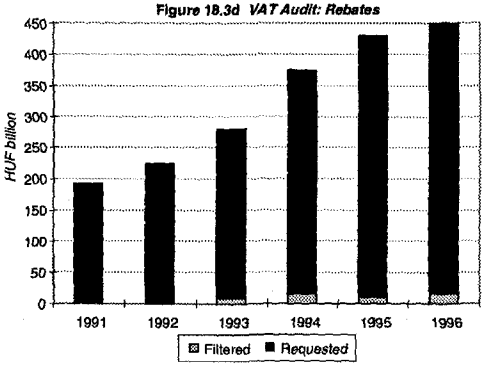
Figure 18.3c ***VAT Credits***



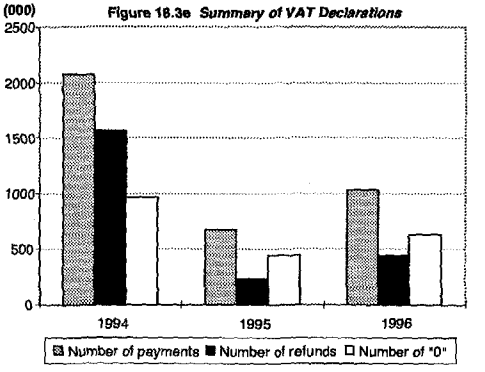
Source: APEH.

(Figure continues on the following page.)

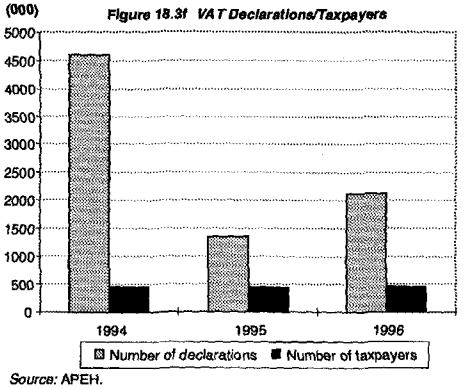
Figure 18.3 (continued)



Source: APEH.



Source: APEH.



Source: APEH.

With the exception of the successes recently achieved in controlling fraudulent VAT returns, the audit effort is, in general, not well-targeted or efficient. The data on audit performance (figures 18.2c, 18.2d, 18.2g, and 18.2h) suggest that, while APEH has taken a number of important steps to improve its performance, overall results have fallen short of expectations. The number of additional assessments has been minimal, and collection derived from the intervention of auditors even smaller. As shown in figure 18.2c, both continue to decline.

Recently, APEH has decided to structure its audit capacity on the basis of long-term relationships with individual taxpayers. The audit capacity consists of developing compliance profiles to be used as parameters with the objective of selecting taxpayers to be audited, developing screening routines for taxpayer selection, preparing individual audit strategies, actual audits, and the evaluation of the operational and managerial process derived from results of individual audits and the overall audit program. This should produce an audit system capable of optimal targeting of evasion, mass-producing requisitions for self-audit, supporting investigations, substantiating and producing assessments based on the audits, following up appeals by taxpayers, and evaluating audit program results and auditor performance. The results are likely to be an increase in the probability of evaders being detected and, indirectly, an increase in compliance by highly risk-averse taxpayers.

Collection of Tax Arrears

APEH has made a major managerial and operational effort to improve collection of arrears. However, the problem is so large that, in spite of this effort, arrears have continued to grow steadily (figure 18.2e), and the tax base continues to shrink. Initially, in 1992, the reason for the growth in arrears was the growing number of bankrupt companies under liquidation. Consolidation contracts were signed in 1995; rescheduling of arrears and concessions was done every year. But tax arrears have kept growing, in part because penalties are so high and compounded periodically, so that taxpayers in difficulty are incapable of paying. Figures 18.2e and 18.2f give an indication of the size of the problem. For all main taxes, the majority of these arrears may never be collected. A policy of "forgiveness" (maintaining only present tax obligations current) for a carefully selected group of taxpayers should be considered to lighten the burden of administration.

Taxpayers in arrears with APEH usually also owe social security contribution payments, paid to the Health Insurance Fund or to the Pen-

sion Fund and collected, on behalf of both funds, by the Health Insurance Fund. The difficulty of collecting these balances, however, is well beyond the institutional capacity of either agency. The problem of arrears will not be solved through isolated operational efforts and policy cooperation between agencies is taking place.

Human Resources

To carry out its functions, APEH has had to recruit (or retrain) skilled staff, but its salary scale is so low that turnover to the private sector is very high. APEH provides training in the automated systems described above, technical training to perform functions such as legislation, and training of new staff. As a central strategy, APEH based its program on the preparation of training materials using the "training-of-trainer's" approach.

ADMINISTRATIVE IMPLICATIONS OF THE LEGAL MANDATE

This section reviews the administrative implications of tax laws. The concepts of stability, affordability, and vulnerability are used as an organizing framework to interpret how tax legislation is administered.

Legal Stability as a Parameter of Tax Administration

Hungary's Parliament has authorized tax increases with almost each yearly budget, and the tax code has been changed frequently. The frequency and magnitude of the changes has led to a perception by taxpayers and administrators that the system is inherently unstable.

Over the past decade, frequent short-term, ad-hoc measures were adopted to bolster declining tax revenues. Generally, after a period of implementing such tax measures, the government felt compelled to create new legislation to cover revenue shortfalls. Revenue failures result from a combination of low economic activity (recession or stagnation), a poor legal system, and the failure of tax administration to implement the existing legal mandate. When tax measures are ad hoc and improvised, this often results in a higher nominal tax burden and sometimes higher effective rates. Taxpayers generally react by reducing compliance. In Hungary, ad-hoc tax reforms have created a system perceived as unfair by most taxpayers because of excessively high rates and constantly changing requirements.

In 1998 the government did not propose major changes in the tax system. The VAT was fine-tuned a bit to adjust it to European Union

practices, and changes in the PIT code related to the tax treatment of pensions followed the pension reform (chapter 7). This halt in ad-hoc tax reforms is important, but there are still systemic flaws and loopholes that require legislative action. If not properly managed, this could have an impact on the public perception of the lack of stability of the tax system.

Affordability of the Tax System

The effect of extremely high rates for VAT, payroll taxes, and, to a lesser extent, PIT is to raise the cost of compliance for taxpayers. Low morale and evasion are beginning to typify taxpayer behavior. To a large extent, public dissatisfaction with the tax system has become a political issue that needs to be addressed so as to improve the effectiveness of the tax system. The key indicator in this regard is the decline in tax collection as a percentage of GDP, despite a general trend of increasing rates and broadening the definition of tax bases.

The graphs in figure 18.4 present proxy tax bases[3] and effective tax rates for the major taxes in Hungary. From a collection point of view, some taxes (VAT, PIT, CIT, and customs until 1995) show an increasing effective rate and a decreasing proxy base. Taxes financing central-budget expenditures increased as a share of GDP (from 16.4 percent in 1991 to 19.2 percent in 1995) in spite of reduced and eroded tax bases. CIT rates were lowered in 1996, leading to a substantial increase in collection. The rates of payroll taxes, which finance social security, increased between 1990 and 1993 with the introduction of the solidarity (1.5-percent) and unemployment (5-percent) surcharges, both of which were based on salaries. On the other hand, the payroll taxes base eroded dramatically between 1991 and 1995, reflecting the contraction of formal employment, an increase in the number of hard-to-tax independent private entrepreneurs, and increased tax evasion. As a result, about 4 percent of GDP was lost in tax revenues.

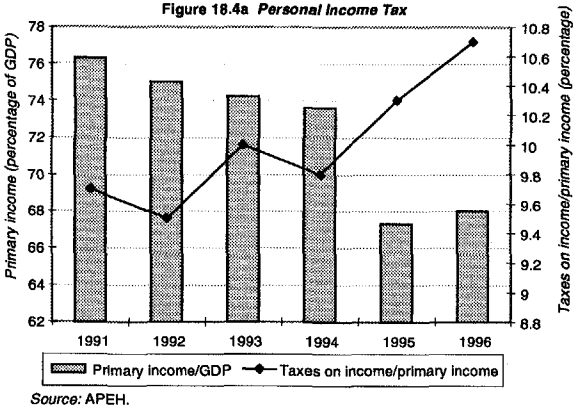
Vulnerability of the Legal Tax System

Hungary's expenditure system is unaffordable; the tax system is unstable, complex, and often contradictory; and administrative procedures are insufficient: all in all, this is a highly vulnerable system. This vulnerability is increased by the negative attitude of taxpayers toward paying taxes, the possibility of making corrupt arrangements with tax officials, and the fact that the legal design of the system sometimes actually promotes evasion.

The tax laws contain a lot of explicit design shortcomings and unreasonable interpretations of the legislator's intent (that is, interpretations

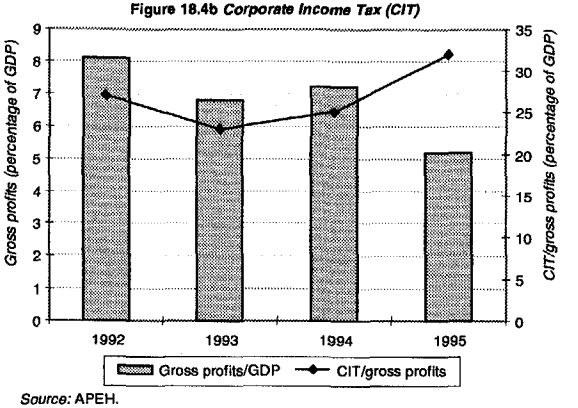
Figure 18.4 Effective Tax Rates and Proxy Bases

Figure 18.4a ***Personal Income Tax***



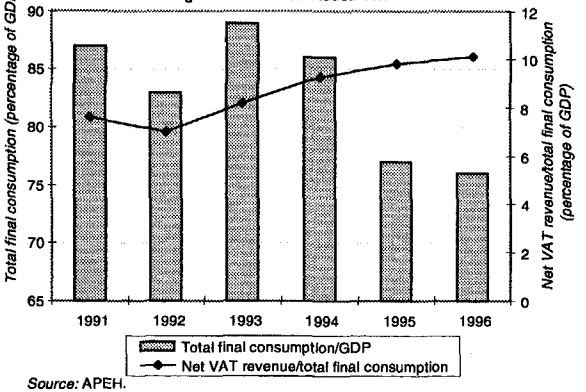
Source: APEH.

Figure 18.4b ***Corporate Income Tax (CIT)***



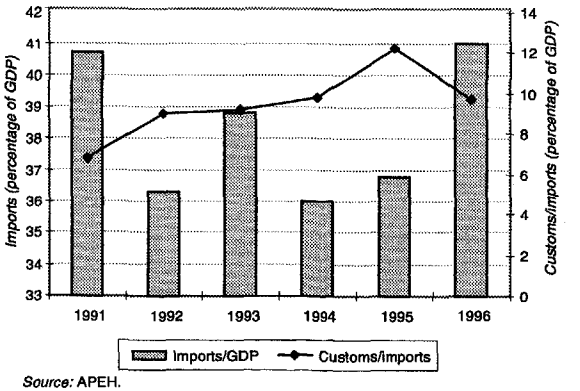
Source: APEH.

Figure 18.4c ***Value-Added Tax***



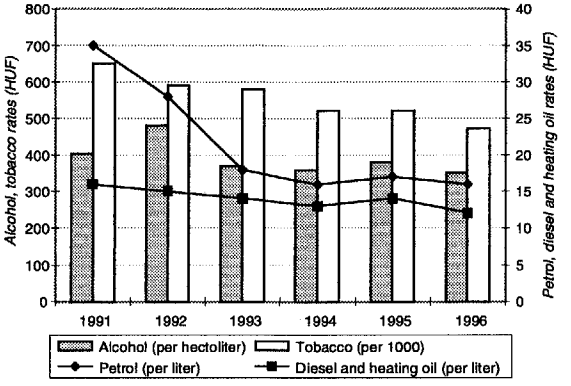
Source: APEH.

Figure 18.4d ***Customs***



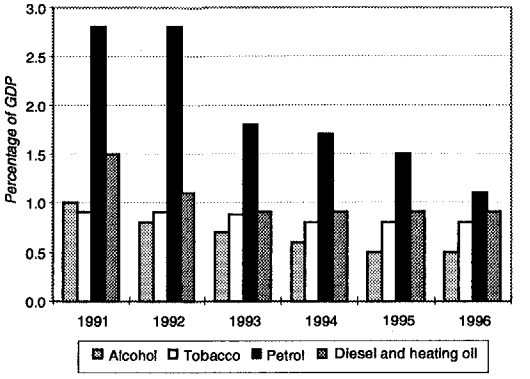
Source: APEH.

Figure 18.4e ***Consumption Tax Fixed Values, Base = 1991***



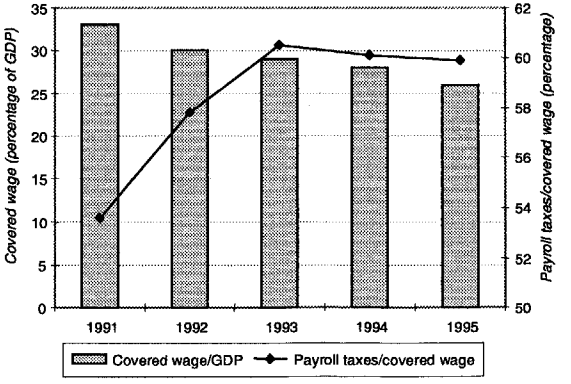
Source: APEH.

Figure 18.4f ***Consumption Tax Revenue***



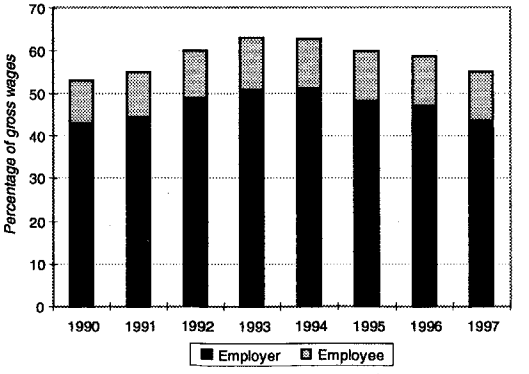
Source: APEH.

Figure 18.4g ***Payroll Taxes***



Source: APEH.

Figure 18.4h ***Total Payroll Tax Rates****



* Includes social security funds, wage guarantee fund.

Source: APEH.

that go well beyond the tax-benefit limits implicitly or explicitly granted by the legislation). The large number of exceptions included in the definition of tax bases creates an environment conducive to evasion. The key weaknesses of the tax system are that it grants benefits to many taxpayers who do not actually comply with the legal expectation that they will pay contributions or taxes, and that "creative accounting" is used to grant benefits in cases that go well beyond the legal intent. As in several other transition economies, Hungary has learned from past mistakes and has reduced the number of benefits initially granted in the tax laws.

The tax laws also contain many loopholes, the most important of which is the application of loss-carry-forward provisions in the CIT: this has had a significant fiscal impact because of the large business losses accrued in the first years of the transition. It is paradoxical that subsidies to public enterprises were eliminated in the early 1990s (thus making their losses explicit)—only to reappear as a fiscal cost in the form of this CIT provision. Given their size, if losses reported by CIT payers were traded with current profits, the carry-forward provision would probably wipe out a substantial part of future CIT receipts.

Practitioners—both tax advisors and APEH auditors—consider that loopholes are there either to be taken advantage of or to impede the normal operation of APEH's auditors. Policymakers—in the Ministry of Finance—consider that the problem is mainly administrative in nature, even if they recognize the existence of such loopholes. The growth of the black economy (which, as mentioned above, is linked to the high tax rates) is indicative of an inherent inability of the government to implement its legal mandate.

Understanding the incentive structure embedded in loopholes would provide policymakers with the means to make policy reforms and formulate strategies to implement a better legal framework. It would also pinpoint the weaknesses of tax administration and lead to improvements in management, even in the absence of policy improvements. In some circumstances, neither policy nor administrative improvements will do the trick: it is difficult to combat some taxpayers' strategies if the law (or the interpretation of the law) is on their side and actually promotes evasion.

Recent government efforts in this area have centered around controlling the black economy, including police enforcement. The authorities also have focused on how to control cash transactions. Following essentially the French practice, initiatives include limits on the possibility of

deducting or crediting cash transactions, forcing taxpayers to provide evidence through the banking system.

In terms of their design, procedural tax laws have a built-in leniency. Even before the transition, "soft" rules were used to encourage private economic activity to comply with the system, in particular in terms of reporting their tax obligations, keeping records, and taking deductions. This general leniency has persisted after the transition. The clearest evidence of this leniency are the rules on VAT refunds, which establish an obligation for APEH to process refund requests in a very short time, with a very high penalty accruing to the agency for lateness. Other examples of leniency are deductions applied to the personal income tax base of private entrepreneurs. Also, the law allows taxpayers to complicate audits by allowing changes of jurisdiction from one county to another, making it thus more difficult and time-consuming to follow the audit trail. One noteworthy initiative of the Hungarian government has been to require all vendors to issue receipts consistent with automated cash-machine receipts for the purposes of VAT control.

The tax system is also vulnerable from an organizational point of view. For instance, the organizational design has no built-in rules of accountability for public servants. This seems to be the case of the audit function (still at the preliminary stage) of both APEH and the Social Security Administration.

CONCLUSION

Even if the government manages to reduce public expenditures in the medium term, ensuring efficient collection of revenue will continue to be a major issue in Hungary. If no systematic efforts are made, revenues can be expected to decline by more than planned expenditure reductions. It is, therefore, important to deliberately include tax administration considerations in the tax policy agenda. A medium-term agenda combining tax policy and administration measures would include three main elements: first, softening what is currently demanded of taxpayers by lowering the nominal rates of certain taxes; second, being lenient with uncollectable arrears and, otherwise, being implacable with non-compliance. In addition, the strategic management of APEH, including organizational design and resource allocation decisions, should be reviewed. Policymakers also should seek public support to improve the consensus about the tax system and its implementation.

NOTES

1. In periods of high inflation, tax revenues deteriorate in real terms because of collection lags and rapidly eroding tax bases. This phenomenon is known as the "Tanzi-Oliveira" effect (Tanzi 1977).

2. The Constitutional Court has been very forceful in enforcing article 59, paragraph 1, of the 1989 Constitution, which protects private information and personal data.

3. In Hungary, tax returns are the main information source used to construct the national accounts so that proxy bases are very closely correlated to actual tax bases.

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CONCLUSION

19 The Unfinished Agenda

Lajos Bokros

In early January 1996 the last section of the Budapest-Vienna superhighway was inaugurated by the prime ministers of Hungary and Austria. This was a milestone in the ambitious Hungarian road construction program: the first highway ever built in a former Communist country by a private consortium, financed exclusively by private funds, and to be operated by collecting user fees.

But the celebratory mood quickly turned to bitterness and anger when the first users of the new section realized they must pay tolls that they considered excessively high. The Hungarian newspapers published articles comparing toll—per kilometer—on an international basis. Finally, an attorney with close links to the Hungarian Automobile Association filed a lawsuit against the First Hungarian Concessionary Highway Corporation, which built and operated the road section.

The user protest and the crusading attorney won great sympathy on the part of many sections of Hungarian society. Proposals were made to reduce the toll, even though everyone knew that this would require fiscal subsidies, as the consortium had a government guarantee of an income stream sufficient to amortize investment costs, repay its loans, and realize a decent return on capital.

The point here is not the level of tolls on the Budapest-Vienna superhighway—though a district court did finally rule that they were too high. The real issue is the mindset of influential people who find it quite obvious and acceptable that highways be run at a loss—and that those losses should be socialized through the budget. What they proposed and propagated openly as a justified claim was nothing less than the idea that the inhabitants of the poorer eastern part of Hungary, the less-mobile retired and less-privileged people, should share the burden of their travel to Vienna. That selfishness is, perhaps, human. But what is shocking is that no one protested against this idea, not even the government. While Hungarians have understood that the price of the salami should ensure full cost recovery no matter how "justified" those costs are, it is in no way obvious to them that a road is a commodity having similar characteristics from this particular point of view.

On January 1, 1997, new tax and social security legislation established new mechanisms for collecting minimum health-insurance contri-

butions from everyone, including those who usually fail to report any taxable income. The idea of a minimum contribution was widely seen as just another source of unjustified government intrusion and there were protests by individual entrepreneurs, especially private farmers. Some political parties with close links to the rural segments of society openly supported extreme demands that the minimum health insurance contribution be completely eliminated. These people did not find any contradiction between this and their demands for the drastic improvement of—and continued free access to—health services. Again, the implicit idea was that other segments of society had to assume a larger share of the burden of running the whole health-care system.

In December 1997 Hungary's Prime Minister announced that retired people over the age of 65 would be entitled to free travel on MALÉV, the national airline. He was proud of his new idea and did not deny that it was part of a slowly but surely unfolding election campaign leading to the parliamentary elections in May 1998. Although the original proposal was later reduced to offering travel in the low season, within Europe only, and with the cost of catering covered by a special fee, it was intended to be a popular measure enhancing the well-being of an otherwise largely unprivileged social stratum that had been hard hit by the government's austerity policy of 1995-96 and the whole transition to capitalism.

The reaction of the people was mixed at best. It was immediately announced that the central budget would obviously cover the losses of the airline company, and that this benefit had been made possible by the stronger-than-expected recovery of the Hungarian economy, which resulted in larger-than-expected fiscal revenues and a lower deficit. Some suspicion arose about the optimal nature of spending the extra budget revenue in this way. Hungary's general government deficit is still too high; a further reduction could have been logically envisaged as an alternative to free airplane trips. If spending the money was the objective, it could perhaps have been better targeted toward the unemployed, the homeless, or the sick. Instead, free travel on Malev "targeted" those better-off retired people who had relatives abroad or who could afford to finance their stay in the expensive cities of Western Europe where the daily cost of living is several times the average monthly pension in Hungary. Apart from being unprecedented worldwide, it is obvious that this measure involved redistribution from the poor to the wealthy through the budget, and hence can hardly be considered an efficient tool of social policy.

SOLIDARITY AND THE LACK THEREOF

In the first chapter of this book, János Kornai emphasizes the fundamental importance of regaining citizen sovereignty as the main driving force behind public finance reform worldwide. Indeed, it is the relation between the individual and the state that constitutes the basis of the societal contract expressed in social security, social policy, taxation, the provision of public services, and so on. But the division of labor between the individual and the various layers of government is even more determined by the underlying fundamental relationships among the individuals themselves and their families.

For thousands of years it was the (large) family and, to a lesser extent, the local community that was obliged to provide the basic social services of health and old-age care, education, and so on to members of the community deemed needy according to a set of social values based on tradition and experience in self-reliance and survival. The rapid industrialization of the last century, and the evolution of mass employment outside the family and the locality, led to a gradual but marked disintegration of the large family and the local community and, even more importantly, the intra-family and intergenerational redistribution that had long been the basic pillars of survival for the non-employed population. The Bismarckian reforms of social security were not only a manifestation of the emergence of nationwide (German) étatism, but at the same time an admission of the disintegration of the small community and an attempt to redefine intra-family and intergenerational solidarity at the level of the nation (Prewo 1996).

The fundamental mistake of the communist ideology and policy in this regard was that it substituted the old structure of societal solidarity for an ill-perceived and normatively defined structure to be imposed on society. Ironically the marked discrepancy between the two was not as obvious and obstructive in the traditional Stalinist system when most individuals completely lost their autonomy as employees and consumers (not to mention their existence as entrepreneurs, savers, and investors). The slow and painful evolution of regaining some of the lost autonomy made this discrepancy more explicitly felt each day. As time passed, the unsustainability of the communist system became increasingly noticeable as the gap between what was preached and practiced widened.

The original underlying values of traditional solidarity were largely destroyed by the elimination of individual autonomy and the resulting fragmentation and atomization of society. Autocratic and communist re-

gimes had much in common in this regard. As a result of their brutal abuses—rent-seeking, usurpation, and corruption—both systems were particularly successful in distorting the public psyche of their people. Open tax evasion became an undeniable national sport, petty fraud and corruption was part of everyday life for the vast majority of the people. The privileged talked proudly about their "innovative" ways of cheating the state. Ironically, this was seen as a constructive form of civil disobedience. No one felt that, at the end of the day, the price was paid by the less-fortunate and poorer segments of society. At the same time, the prostituting impact of small "crimes" universalized feelings of guilt, making it impossible to regain the moral momentum needed for systemic change. Despite the widespread perception of moral degradation, communism was not abolished because of its ethical unacceptability—but because it proved to be unable to satisfy the ever-growing and increasingly westernized material aspirations of the people as consumers.

This rather gloomy and disillusioning conclusion is further supported by the enormous difficulties faced when any major attempt to reconstruct the public finance system takes place in one of the former communist countries. People find it painful to recognize that fiscal deficits, inflation, the growth of public debt, the "free" provision of social services, and their targeting and financing constitute a largely inefficient redistribution of income among the various strata of society and in most cases are in open conflict with the most fundamental values of solidarity.

In addition to the desire for individual autonomy and private choice that is considered to be the principal engine of economic development and guarantee of efficiency in a market economy, the striving for more societal solidarity is—I believe—the ultimate rationale for comprehensive public finance reform. As traditional systems of income and welfare redistribution (pension, health care, education, sub-sovereign finance, etc.) have largely exhausted their internal dynamism and have proven to be increasingly inefficient and financially unsustainable, there is a growing necessity to redefine the basis for those systems: societal solidarity. The strong hope for successful reform is highlighted by the fact that greater individual autonomy and more efficient societal solidarity are not mutually exclusive, but can be balanced in a mutually reinforcing way.

On the one hand, it is very reassuring that public finance reform can be carried out to reconstruct solidarity, making it compatible with the modern democratic process of building up legitimacy. On the other hand, the strong resistance from vested interests created by the pre-existing

mechanisms of income and welfare redistribution, and the usually disproportionately large political influence of groups benefiting disproportionately from the system, cannot be easily overcome. Moreover, the final welfare impact of the redistributive mechanisms embedded in very complex public finance institutions is disguised, so that more privileged groups can easily mobilize—at least temporarily—the resistance of even those who may eventually win from the envisaged changes. That is why there is no shock therapy in public finance reform; under democracy, substantive measures can be introduced only gradually and painstakingly. The experience of Hungary during 1995-97 clearly shows the validity of this statement.

These concluding remarks and recommendations are intended to convey the very ambitious message that public finance reform is a societal transformation of much larger proportion than the political systemic changes of 1989—changes that re-established parliamentary democracy and caused a political revolution that concentrated on establishing a formal institutional framework for the peaceful harmonization of political interests. Public finance reform—as described in this book—is a profound and comprehensive social revolution requiring the redefinition of social values, individual behavior, and internalized motivations of everyday life. Recreating not just politically, but also morally, acceptable values of societal solidarity that can become the driving force of individual actions, combined with regained individual autonomy, is no less than a change of civilization. It is the only hope for restoring human dignity in the former communist countries in the 21st century.

FISCAL PRUDENCE AND EQUILIBRIUM

In the last 30 years of its economic history, Hungary has been a country with substantial government (over)spending (see chapters 2-5). Welfare paternalism gradually introduced and continuously widened after the post-1956 political consolidation was thought to be one of the basic pillars of the "historic" compromise intended to lend some legitimacy to the regime of János Kádár.

Public Spending, Deficit, and Debt

The gradual and constant widening and deepening of the availability of such social services as sick pay, family allowances, various forms of childcare, and maternity benefits, plus generous housing support, was first applied in the "golden era" of 1968-74, when the country experi-

enced unprecedented growth based on the efficiency gains of the New Economic Mechanism, which enhanced collective and individual entrepreneurial autonomy. Given the extremely low starting point in terms of real income and welfare benefits, the initial dynamizing impact of the abolition of central planning and the temporarily favorable world-market conditions, the expansion of the welfare state proved to be financially sustainable during the first six years. (This was the first period later referred to internationally as "goulash" communism.)

Then came the first oil crisis at the end of 1973. For a small open economy dependent on importing oil for most of its overall energy needs, some form of adjustment was inevitable. The efficiency gains of the original reforms had already been exhausted; instead of further enhancing these reforms, the authorities decided to stop and even reverse some of them. The reaction at the macro level was very unfortunate. Instead of absorbing the one-time inflationary impact of the oil crisis by allowing the transfer of increased import prices into the domestic economy, the government decided to isolate the enterprise and household sectors by heavy subsidies financed by foreign borrowing. Even the existing size of the welfare redistribution was no longer supported and justified by the income-generating of the economy. Although this statement is disputed even today (largely on moralistic grounds), it is fair to say that from 1974 on, Hungary began living well "beyond its means" from the macro-financial point of view (Kornai 1996).

The unsustainability of this shortsighted macro-financial policy was further exacerbated by the decision to expand even further the scopes of some of the recently introduced welfare benefits. The government of the day tried to renew the fragile societal contract by purchasing the loyalty of the citizens—over and over again. When it was no longer possible to accelerate the external financing of the mounting fiscal deficit, the burden of adjustment was distributed among the various strata of society by way of inflation and increased taxation of state-owned enterprises. It has become standard practice of every Hungarian government since then to try to recapture at least part of the cost of the new entitlements by "stealth" methods such as inflation and indirect taxation.

The long decade of 1978-89 was a period of prolonged stagnation in Hungary. It was characterized by large twin deficits in the fiscal and external sectors, and periodic desperate attempts to reduce these financial imbalances by allowing more inflation while trying to enhance the economy's export capacity by injecting more entrepreneurialism into the state

and the incipient private sector. However, the deepening and widening of the welfare redistribution (thought also to be necessary because of the erosion of the purchasing power of individual entitlements) made the further centralization of income absolutely unavoidable. Hungary had gradually built up a high-tax, high-subsidy economy that had increasingly paralyzed the official economy and widened the scope of the informal sector.

This growing fiscal distortion had two major consequences. First, the increasing discrepancy between many people's formal and actual incomes rendered the almost universal provision of social transfers more and more obsolete. Second, although there was more political pressure to increase the value of these transfers and in-kind services, there was less and less incentive to pay for them. When the government introduced the explicit forms of personal income and corporate profit taxation in 1988, widespread evasion of taxes and social security contributions was already a fact. By the time of the political changes, the Hungarian economy had already fallen into a fiscal trap—resulting in a classical vicious cycle of prolonged stagnation and disequilibrium—due to its more developed market structures and welfare structures—than any other former communist country (Bokros 1998). Consequently, the disintegration of the underlying weak structure of societal solidarity was also more apparent than elsewhere. In many ways, at the beginning of the period of systemic changes, the redefinition of solidarity at the level of societal microstructures would have been probably more urgent than anything else.

Unfortunately the fiscal illusion was complete and unbroken between 1975-95 despite the very different political characteristics of the subperiods of these two decades. No government before and after the change of the political system understood the ultimate harm done by overspending, the deficit, and debt to long-term development. There was no serious effort to explain to Hungarians that the unprecedentedly large weight of government paralyzed entrepreneurial activity, seriously weakened the incentives for saving and investment, and thus hampered economic growth. The short-termism of these two decades clearly reflected a widespread lack of intergenerational solidarity. Current account deficits, excessive foreign borrowing, and the accumulation of huge foreign debt were thought to be detrimental only because of their obvious unsustainability and clearly not because of their implicit long-term opportunity cost. Fiscal overspending, large deficits, and even mounting public debts were considered compatible with—if not explicitly beneficial for—stimulating economic growth and enhancing social welfare.

The dramatic shift of government focus in March 1995 with the sudden introduction of a far-reaching stabilization plan was a shock for the majority of the people and the political class. It is true that the quick governmental action of imposing comprehensive austerity measures was prompted and explained by the increasing fear of possible default of the state on its external as well as domestic payment obligations. Even some heavyweight government officials, including the Prime Minister, thought at that time that the budget cuts, the containment and streamlining of social transfers and services were temporary and should be eventually reversed after the stabilization. It is important, however, to reveal that the marked reduction in the rate of government spending and the incipient reforms of the public finance sector were intended to signal the beginning of a systemic change in what is called "sharing the public burden" in Hungary, resulting in a significant reduction of overweight government. Although the program was fiercely challenged by influential interest groups within and outside the ruling political forces at that time and overspending by government is, even today, still frequently disputed, large fiscal deficits and excessive public debts were openly declared not only financially unsustainable and economically harmful, but also unjust and unjustifiable from the viewpoint of equity and solidarity. The concepts of fiscal prudence and equilibrium as a prerequisite of macrofinancial stability, regarded as a *sine qua non conditio* of public finance reform, were successfully introduced in the public debate.

Reconstruction of Government Finance

The next question is obviously very practical: what amount of spending, deficit, and debt is compatible with maximum economic growth and social efficiency? The answer will be different from time to time, and will vary according to the actual stages of the business cycle. On the basis of recent experience, however, some basic guidelines can be identified:

- The general government-spending ratio has an inverse relationship to overall economic flexibility and efficiency. This is clearly shown by the ranking of the largest and most developed Western economies: United States, 32 percent; United Kingdom, 39 percent; Germany, 47 percent; Italy, 50 percent; France, 54 percent.[1]
- The European tradition of extensive income redistribution based on deeply rooted state paternalism should be reconciled with the much weaker income-generating capacity of an underdeveloped economy struggling with immense structural distortions. Hence, the general government spending ratio should be lower than in

most of the continental European economies—which also need to roll back the frontiers of the state to regain international competitiveness in a fast globalizing world.

- The level and ratio of spending will largely be determined by the level of taxation people are willing to accept and comply with. The devastating scope of tax evasion in all transition economies—including Hungary's—is the consequence of an excessive level of overall taxation, which by no means reflects any perception of societal solidarity.
- After 50 to 80 years of massive destruction and denial of civic values, it is hardly possible to determine the level of taxation that would be considered justified and acceptable by the majority of society. Therefore, easily digestible targets should be established to influence public perception and enhance the acceptability of a ratio of general government spending thought to be conducive to maximum economic growth.
- To find and achieve the optimal ratio will take time—and much trial and error. For the sake of setting in motion dynamic forces, however, some ballpark ratios could be fixed as intermediate working targets: 20 to 25 percent of the gross domestic product (GDP) for the central government, and 28 to 33 percent for the general government, including local governments and the publicly managed part of the social security system.
- The European Union (EU) has already announced and successfully enforced the main convergence criteria for monetary union. It is hardly a coincidence that most of these criteria are of fiscal nature. Their specific level (general government deficit maximum 3 percent; public debt to be pushed below 60 percent) is calculated to be compatible with the optimal long-term growth rate (around 3 percent) of most of the mature economies of the community.
- Transition economies can afford larger deficits only if their growth rate is high enough to stabilize the rate of public debt. Nevertheless, it is strongly recommended that a near-equilibrium general government budget should be targeted to utilize fully the mid-term underlying growth potential of the economy. In a small, open economy, low or no deficits could unleash additional dynamic forces (especially in the area of productive investments). Closing the gap with the EU is a widely shared political goal and it is clearly achievable if adequate macro-policies and

micro-reforms are introduced and maintained to maximize international competitiveness.

- In countries struggling with large and hardly manageable public debts, public sector borrowing requirements (PSBRs) should grow at a slower pace than the economy itself. This means, in practice, that current budgets at a consolidated level should include a primary surplus covering most interest and dividend payments, and capital budget deficits should be financed largely by privatization revenues. Ideally, a zero general government deficit could induce the most rapid growth, as the potential crowding-out impact of a sizeable PSBR could, thus, be first contained and then quickly eliminated.

Hungary has followed these requirements only to a limited extent since the early success of the stabilization. While general government expenditures were reduced from 60 percent of GDP in 1994 to almost 50 percent in 1996, further progress is likely to be much slower, nearing only 40 percent by the end of the century. The deficit of the general government was also significantly reduced as a result of the drastic austerity, from 8.4 percent of GDP in 1994 to 3.2 percent in 1996.[2] Although the deficit in 1997 rose largely as a consequence of making external debt-service explicit in fiscal accounts, the budget plan for 1998 did not make a new effort to return to further deficit reduction; even the primary surplus is targeted at a lower level for 1998. Public debt, after peaking at almost 90 percent of GDP in 1993 and remaining above 80 percent during 1994-95 has come down gradually by roughly 5 percentage points in every subsequent year. It is likely to fall below the famous 60-percent threshold as early as the turn of the century.[3]

In 1997 Hungary was finally able to resume economic growth without any sign of a deteriorating financial equilibrium for the first time after more than 20 years of "muddling through," characterized by either slow growth with sharpening financial imbalances, or prolonged stagnation with small improvements in restoring equilibrium. The economy grew by more than 4 percent, while the current account deficit was just 2 percent of GDP—only half the planned figure. Exports were clearly the engine of the recovery; their volume increased by more than 20 percent.[4] There is high hope that the country will be able to start closing the income gap with the EU by engaging on a sustainable growth path and achieving higher rates than most EU members have for a relatively long time. Shortening that process is possible, however, only to the extent sound macro-financials are underpinned with further structural reforms.

In public finance, this means that fiscal prudence and equilibrium should be supported by raising the legitimacy and general acceptability of all forms of state redistribution through further reforms affecting both sides of the fiscal balance sheet.

These reforms have already taken on, and will continue to take on, a variety of forms. Certain common fiscal norms, however, should characterize them all. They should re-establish the strong link between benefits and contributions at the level of society as a whole—to avoid deficits and overspending—but even more at the level of each individual—for the sake of creating strong interest in paying the contributions and keeping the desire and pressure to expand the benefits at bay.

SOCIAL SECURITY AND SOCIAL INSURANCE

As discussed in several chapters of this book, one of the final measures of the last communist government was to make childcare payments universal in March 1990 (see chapter 10). This is widely regarded as a major shift in establishing the legitimacy of many entitlements in social policy. Until then, childcare benefits had been available only to those who had already worked in recognized, that is, recorded and reported, jobs that proved them "valuable" members of society deserving social support. The underlying concept was not so much tax contribution, but the fact of employment itself. But employment was almost complete, and opportunities for work abundant, so that childcare benefits were de facto universal; there was a clear disregard of the tax contribution element, and, in practice, it was an entitlement, not a purchased right.

Universal Entitlement Versus Purchased Rights

The constant widening of eligibility over the last two decades of the communist system—and reduction of requirements to a symbolic amount of work—made these social transfers almost universal at the time of the political systemic changes. As the benefits also no longer had any clear link to previous financial contributions, it is impossible to describe them as purchased or property rights.[5] Instead, these growing benefits reflected consecutive attempts by the communist government to approximate and express desired structures of societal solidarity, half imposed, half acknowledged.

This situation changed dramatically after 1989. During the first five years of the transition Hungary lost almost 1.5-million jobs. It was no longer easy to acquire employment status; had this been a substantive

requirement for eligibility, the number of beneficiaries would have fallen drastically. Yet the opposite happened. The first democratically elected government made every effort to widen eligibility in a desperate move to fight unemployment. The last weak links between social support and previous contributions were cut. Everyone was eligible for some form of social service—based on need, rather than contribution.

Thus, one can argue that all benefits, including social transfers, pensions, and in-kind services such as health care, were already provided on the basis of universal entitlement by the time the first steps toward real public finance reform took place in tandem with the stabilization of 1995.

Imaginary Solidarity Versus Insurance

It is no coincidence that competing words are used to describe the fundamental basis of societal protection: social security and social insurance. The former means the overarching need to protect life and provide the basic material conditions to every citizen; the latter refers to one specific way of achieving it. Social insurance requires a relationship between contribution and benefit at the individual and societal levels. Insurance always depends on a community bearing some form of risk together. In the case of social insurance, the society as a whole is the unit that bears this common risk.

In the Hungarian language, however, there is no distinction between "social security" and "social assistance"; social security originally was translated into Hungarian as social insurance. The distortion of semantics was not an issue before World War II when the Hungarian social security system had far from universal coverage and primarily was based on insurance. Individual contributions were meticulously measured and perfectly recorded, non-contributors did not dare to make claims, linkages between payments and benefits were clearly declared and precisely kept.

This changed completely after the 1949 nationalization of this true social insurance system and its conversion into pay-as-you-go (PAYG).[6] The accumulated funds were expropriated and used to finance heavy industrialization. Coverage was gradually extended to everyone, and the relationship between contribution and benefit substantially weakened. The real underlying concept was to eliminate insurance—as an inherently inhumane capitalist concept—and substitute an ideally conceived, normative version of solidarity that it was thought legitimate to force on society.

It is not to say that the system, which has been the dominant form of providing social security until quite recently, did not contain elements of insurance. But the following characteristics of the Hungarian PAYG system clearly explain that the country used to have primarily a social security governed by principles of forced solidarity rather than any insurance, no matter what forms of the latter (societal, collective, mutual, individual, private, etc.) are to be considered.

- The system did not maintain individual accounts, so service providers could not determine whether someone had actually paid in—and there was no chance of establishing a relationship between contributions and benefits.
- If an employer did not pay the sum of contributions that were collected on behalf of all his or her employees, this did not exclude the individual beneficiaries from enjoying social security services.
- Employers and employees, not only small and private but also large and public, were able to collude and cheat the system in many ways (paying only minimum wages on paper, underreporting revenue and personal income, declaring sickness without control, etc.).
- Initial pension benefits were based largely on the number of years worked and the level of final (or the average of the last three years) salaries, rather than overall contributions; yearly increases were set by Parliament irrespective of individual contributions or overall system revenues.
- The level and quality of health services are still primarily determined by the capacity and willingness of individuals to pay privately and directly to the health-care staff or by the political status of patients, and not by individual contributions to the system or to the care provider.
- Since there was no linkage whatsoever between contributions and benefits, very few people were interested in meeting obligations. Not only was there an incentive not to meet those obligations, there were publicly accepted and legitimate arguments for avoiding payments while demanding more benefits and better services (for example, lack of individual choice, consumer sovereignty, and perceived societal solidarity).
- Yearly deficits of the social security system are still covered by the central budget automatically, without limit and free of

> charge. (No interest payment is required; no debt is being accumulated.) As a consequence, the system is plagued by systematic underestimation of costs, lack of interest in collecting contributions, huge waste and theft, constant shortages, long waiting lists, growing deficits, bribery, and corruption. The social security system would have long ago been declared bankrupt had it really been functioning as an insurance scheme. There are no incentives whatsoever to reform the system from within.

While it was always obvious that PAYG social security systems are not really commercially based insurance, it is important to note that the Hungarian model did not provide much insurance at the level of society either. Apart from the basic deficiency of lacking any meaningful link between individual contributions and benefits, there was no relationship between risk assessment and coverage at the level of society as a whole. The Hungarian social security structure was also contaminated with many burdens and risks unrelated to either health or old age, such as unemployment. It offered coverage to many non-contributors and incurred growing deficits that were ultimately financed by taxes and not at all related to the provisions of health care and pension benefits. The system was—and has largely remained—unjust, inequitable, and unsustainable.

REFORMING SOCIAL SECURITY

As Minister of Finance, I had the pleasure and privilege of making more than 100 speeches and presentations all over Hungary in 1995-96. The dialogue with thousands of people offered an excellent opportunity to explain the rationale behind the painful macroeconomic stabilization steps and highlight the need for structural reforms, especially in public finance.

Further Reforms of the Pension System

After complaining about the perceived malfunctioning of the pension system, retired people almost always asked a very legitimate question: what had happened to the contributions they claimed they had been dutifully paying for many years? For most of them it was a great surprise to find out that the country was operating a PAYG system, under which the actual pension payments were at least intended to be covered by current receipts of contributions from the actually working populace. They thought that this system was unjust—most of them considered pensions not as a social transfer, but as hard-earned and well-deserved income

streams repaying their previous investments. It was clear that these people did not want old-age pensions to be based on solidarity but on private insurance; that societal solidarity that was supposed to underpin the PAYG system hardly existed. The practice of the last half-century in Hungary was clearly based on illusions.

Again, it is important to recall that Hungarian pension-system reform was triggered largely by financial unsustainability (see chapter 7). Demographics and the distortions of the system to accommodate unemployed people explained the gradual but marked increase of the retirement age. However, the establishment of defined contribution, fully funded and privately managed pension funds was even more significant from the viewpoint of restoring people's interest in paying contributions, thus introducing into the system the completely new elements of private insurance.

The challenge for the future is to find an acceptable balance between social insurance, as represented by the reformed PAYG system, and private insurance, as carried out by the new second pillar. (The third pillar—voluntary private pension funds—is only a form of portfolio management and has no impact on the underlying concept of societal solidarity.) It is important to recognize that both pillars contain elements of both solidarity and insurance. Nevertheless, the fact is that the PAYG was always thought to be—and after the current modernization may really become—a defined benefit scheme that contributes to intergenerational income redistribution based predominantly on perceived solidarity supplemented with some secondary insurance elements, while the mandatory private pension funds will operate mostly along insurance lines, incorporating some secondary elements of solidarity—such as industry-administered mutual and government-guarantee schemes for minimum benefits.

In this respect, the Hungarian pension reform is far from complete. As a consequence of too many concessions to influential interest groups during the prolonged design period, the final arrangement written into law gives too little scope to the second pillar. Contributions to the private pension funds are only 6 percent of gross wage (paid by employees), rising to 7 and 8 percent in 1999 and 2000. At the same time, employers are still supposed to pay 24 percent (23 percent and 22 percent) exclusively to the first pillar in 1998 (1999 and 2000).[7] As the mixed system is mandatory only for new labor-market entrants, it is highly likely that the coverage of the private funds will remain quite limited in the foreseeable

future. Contrary to original expectations and intentions, the second pillar is not mandatory for the great majority of employees.

To achieve better equilibrium between the first and the second pillars, it is highly advisable that employee contribution rates rise even more after 2000. One solution would be to increase the rate by 1 percentage point a year until it reaches a minimum of 13 to 15 percent. At the same time, employer contributions could fall further to 17 to 15 percent.[8] International experience clearly shows that the two pillars can constitute an optimal reconciliation of the two conflicting principles of solidarity and self-provision for old-age care at a roughly even division of the PAYG and the fully funded, privately managed pension schemes. Given the widespread evasion of taxes and social security contributions—and the need to create a forceful benefits-contributions link—a 50-50 split between the two pillars seems to be required.

Allowing people the initiative to take care of themselves also appears to be the only way to reintroduce voluntary solidarity. If contributions to a highly redistributive income pool are no longer perceived as excessive, and the financial dynamics of a system of fiduciary responsibility toward a growing proportion of elderly people eligible to benefit from the system is widely understood and accepted, compliance with the rules of the game could improve dramatically.

It is widely recognized that the reform of the first pillar is as important as the introduction of the second. The point was not only to give people back a fair amount of control over their own savings and investments through their life cycles, but also to improve the financial equilibrium of the PAYG to avoid the use of secondary intergenerational income-redistribution mechanisms such as chronic inflation, higher budget deficits, and higher taxes unrelated to pensions, but required by the pension-system deficits superimposed over the primary redistribution constituted by the PAYG itself.

In this respect, the greatest achievement in Hungarian pension reform has been raising the retirement age.[9] But further changes are needed. Given projected long-term demographic trends, a further increase of the retirement age to 65 years, as in most countries of the Organisation for Economic Co-operation and Development, should be considered soon. As the 62-year-limit will not be fully implemented until 2009, after a long transition, the optimal solution would be to continue yearly increases in retirement age after 2009. Thus, the 65-year-old threshold for both sexes could be reached in 2012, which would most

likely eliminate the deficit of the public pension system for the next 50 years.

The weakest element of the reform of the Hungarian PAYG is the envisaged very-late implementation of the new indexation formula for the yearly increases of pensions. This is aimed at eliminating the arbitrary decisions as practiced widely in the past (see chapter 7) by the Parliament and also trying to ensure the long-term financial equilibrium of the system. Indeed, the concept of the indexation itself is a very powerful tool in creating a truly defined benefit scheme, thus reintroducing the social insurance element to the system at all. The problem is that the specific indexation formula that seems to be optimal in taking into account the requirements to iron out the excesses of a business cycle and the need for individual pension claims to remain neutral as compared to wage formation over a longer period of time will not be introduced until after 2013.[10] While the generous increases envisaged by the law and originally intended to secure an approval of the entire package apply only until 1999, specific provisions give room for further adjustment throughout the first decade of the next century. After the elections in May, 1998, the new parliament may wish to revisit this issue and bring forward the application of the indexation formula based on calculating the 50-50 percent weighed average of gross wages and consumer price index.

The proposed reform measures (a more equitable distribution of pension contributions between the first and second pillars, further increase of the retirement age, and much earlier application of the Swiss indexation formula) may significantly increase the savings channeled into the private pension funds, strengthen the compliance by individual contributors, and reduce the PAYG system deficit. This would improve Hungary's overall savings and investment performance, which could lead to higher—but still sustainable—economic growth. If an eventual surplus in the PAYG system allows it, a marked cut in contribution rates could reduce non-wage labor costs and enhance the international competitiveness of Hungarian labor.

Reforming Health Care

While Hungary was the first, and until today, the only former communist country in Central and Eastern Europe to implement a comprehensive reform of its pension system,[11] no serious attempts have been made so far to do the same for Hungarian health care (see chapter 8).

One may wonder why it was impossible to bring about fundamental changes in a system that seemingly satisfies no one. In contrast to the

debates preceding the pension reform, the intense verbal fighting around proposals to improve health care did not reveal any beneficiaries of the present system. Patients were concerned about inadequate service quality, long queues for medical treatment, and the need to pay—unofficially—medical personnel without control of output. Physicians and nurses find it humiliating to be obliged to get additional income from patients due to the low level of official remuneration. Managers of health-care institutions suffer from unpredictable financing and conflicting orders from the three main stakeholders: Ministry of Welfare, the Health Insurance Fund (HIF), and local governments. Constant tension among these three important governing bodies ruins coordination to the detriment of health-care providers and beneficiaries.

One possible explanation is that health care—unlike pensions and social transfers—is fundamentally provided as an in-kind service. While a pure market-based system is theoretically conceivable, it exists nowhere, and patients are not required to cover the costs of service at the point of sale. Hence, costs remain disguised and may never be fully recoverable from end-users of health-care services. Consequently, providers seek additional funding from insurers and public entities, which try to set standards and rules to increase quality and contain costs, which inevitably leads to limitations on competition. It seems to be an unbreakable vicious circle.

Thus, health-care management and financing is probably more difficult and complicated than any other public service. But this does not tell us why it has been impossible to achieve a workable consensus among the major political forces in Hungary on how to reconstruct health care in a country characterized by strikingly low male life expectancy, almost epidemic incidences of "modern" non-communicable diseases, and psychological illnesses leading to alarmingly high levels of suicide, alcoholism, smoking, and an increasing use of heavy drugs (Goldstein and others 1996).

The answer may be that a peculiar stalemate has emerged in Hungary as a consequence of the ill-conceived "reforms" introduced in 1993 (see chapter 8). Establishing a semi-autonomous self government and delegating it the right to manage a large pool of funds without clear-cut rules and responsibilities was a fatal mistake. The original intention to take the state out of health care was a benign idea and could have been well-justified had it led to a major effort toward privatization, or at least to much more freedom of choice and autonomy for patients to control quality and influence the development of the system. Instead, removing the

state presence has created an even more uncontrollable and alienated bureaucracy than the government itself. Removing direct management by a line ministry in favor of a nationwide administration that represents the vested interest of insider groups—not patients or fund contributors—cannot be termed a meaningful reform that brings health care closer to demand.

This institutional change proved to be very destructive, even from a political point of view. As the HIF self government during its first four years of existence was at least partially elected by employees from among representatives of trade unions, it claimed legitimacy equal to that of the Hungarian parliament without having the slightest responsibility for eventual overspending, negligent collection and use of health-care contributions, inadequate financial planning, and so on. When the outright conflict with the parliament over the mismanagement of the health-care budget was elevated to a scandalous level by the end of 1996, a new law was soon introduced to eliminate this ill-perceived legitimacy of the HIF self government by putting its reelection on the basis of delegation instead of universal suffrage.[12]

Thus, meaningful reform of the Hungarian health-care system is hardly conceivable without eliminating this useless and mostly harmful structure, which represents re-corporatization rather than de-étatisation. Sadly enough, the attempt of the Minister of Welfare to re-nationalize the health-care system as a first step toward its restructuring and partial privatization failed in 1996.

Many politicians and intellectuals still genuinely think that self government in theory is a good idea, as it has proven an adequate form of managing social insurance at a nationwide level and they feel that health-care contributions managed by the government will inevitably lead to a diversion of funds to other purposes through the budget; even Parliament ought not to be in a position to mix health-care payments with other taxes and use them to finance other priorities at will. According to this concept the role of self-management is to make sure that all payments made to finance health care remain in the system and are used in the most efficient way.

This theory is very appealing. The problem is that health-care fund management simply cannot be executed in that way. Even if the members of the self-governing body truly represent their voters and have the right to freely determine contribution rates and put in place efficient mechanisms to collect all dues from all potential users of the insurance-based system, there is a broad gray area in which the ultimate fiduciary

responsibility for service provision remains with the state, and insurance principles will not apply.

According to a historically entrenched "European" tradition, accident victims should receive adequate medical treatment even if they cannot prove that they have paid health-care contributions. The same holds true for the unemployed, mentally ill, homeless, and all others who may have never contributed a dime to the system. Health care as a basic element of social policy is not provided on the basis of social insurance to a large segment of society. Contributors realize that they pay not only for themselves and families, but also for an unknown army of non-contributors whose number is a moving target (and, in the case of economic crisis and/or sudden societal transformation, is likely to grow rapidly). Hence, the public health-care system is functioning along insurance lines even to a lesser extent than the public pension system. It is fundamentally a system based on some form of solidarity, either forced or voluntarily embraced.

This is not to say that health care (or at least part of it) cannot or should not be provided on the basis of insurance, social and private alike. What is to be avoided is a governance structure claiming jurisdiction over the whole health-care system and pretending to run it along insurance principles—and at the same time claiming full cost coverage for those who benefit from the system but do not pay for its services. There is no justification for setting the rules of the game to finance all service providers and then claim unlimited, automatic, and absolutely interest-free coverage of any deficit that emerges. In theory there are two alternatives. First, the health-care system could be run along insurance lines and at the same time claim budgetary support for treating the uninsured populace. A self-governing body could manage and finance the insurance-based part of the system and assume responsibility for providing adequate service for all contributors—and making sure services are limited to those people. However, an insurance-based system should not have (regular) deficits, and should not get budgetary financing, or bailouts of deficits or debts. Rather, it should either increase contribution rates or lower the level of services covered. Second, the whole system could be financed from taxes, rather than contributions, and cover services to non-contributors as well; no separate governing body would be needed, since in a democratic environment it is the central government that represents the society of beneficiaries as a whole.

There is little to be gained by extending the discussion of this very real roadblock to progressive reform in Hungary, as doing so would

mean dealing with issues of decentralization and privatization that should be the next steps after renationalization. But it is imperative to make clear that pretending that a system is functioning as an insurance vehicle when it lacks all the prerequisites to do so leads to an arrangement worse than the previous one, which had been quite inefficient but, at least, was based on a crystal-clear governing principle: forced solidarity.

Meaningful reform would require restoring consumer choice and control, while containing costs and maintaining a workable balance between insurance and solidarity, starting with reform of the family doctor service. Going further up the hierarchy of health-care provision, it is conceivable to privatize a good part of outpatient specialized care and hospitals. As family doctors are basically financed by local governments on the basis of capitation, the newly formed associations of medical staff specializing in outpatient and inpatient services could well be financed by public and private insurers. For that to happen, the renationalized public health-care management and financing system also should be partially privatized much like pensions. People are recognizing the fast deteriorating quality of public health-care services, and are increasingly relying on the booming private health-care industry anyway. The establishment of a second pillar—through mandatory private health insurers—would be an enormous step in the right direction.

Under the social security law, employers pay 15 percent while employees pay an extra 3 percent of gross wages to the HIF.[13] In addition, a special health-care fee applies to individual entrepreneurs, members of cooperatives, and others working in a non-employee status in an attempt to capture at least a minimum contribution from those who tend to underreport their true incomes. It was also designed to ensure minimum coverage for those who otherwise would not pay any contribution.[14]

The present system has many deficiencies that easily could be cured in a multi-pillar setup. First, in the case of health care, it is true that many more resources need to be channeled into the system: while the 15-percent employer contribution seems to be adequate or even high, the contribution of direct beneficiaries is absolutely insufficient. In a highly developed evasion environment, however, people will pay more only if they are given (positive and negative) incentives. The mandatory use of private health insurers, preferably with the establishment of separate health-care funds, would quickly reveal that much larger contributions are required if anything beyond (a very precisely defined) basic service is to be financed by these institutions. Second, the private health-care insurers would quickly impose individual risk-assessments on their clients

and set fees accordingly; smokers would immediately realize that they have a very expensive habit. This system would not only stimulate strong compliance, but also much healthier lifestyles. Third, the public part of the health-care system should be financed either out of employer contributions, or, more desirably, by a new general health-care tax levied on all income to recognize that the fundamental and dominating principle underlying the public health-care system is societal solidarity.[15] It is important to recognize that the wider the scope of services defined as basic that remain in the public part of the system, the larger the amount of financing needed to run it without a deficit. Fourth, to check abuse and minimize moral hazard, private insurers will insist on the introduction of co-payments at the point of sale at least as a supplementary mechanism. This is most desirable in a system in which consumers are largely not aware of the enormous costs involved in providing quality service.

The last important point to make here is that there is a need for a far-reaching decentralization in service provision irrespective of ownership and form of management. While competition among family doctors is guaranteed by their sheer number, this is more difficult to achieve at the level of outpatient specialized care and hospital services. Modern treatment is increasingly capital intensive, and the huge investments needed to provide quality service while capturing economies of scale lead to quite large units of service provision. In case of public providers, the obvious solution is the substantial involvement of mid-level local governments, which have a natural incentive to provide quality service for the people living in their jurisdictions. Subnational entities may wish to co-own or co-manage medical facilities or support private-sector activities in their areas. At the same time, public and private health-care providers could have access to financing from both the national health fund and private insurers. In fact, what is likely and desirable to emerge is a flexible matrix structure of providers and financiers at all levels of health care, public and private alike. Only a competitive environment with free entry and exit of service providers will be able to support a precisely defined regulatory framework of adequate checks and balances that can control both quality and cost.

Decentralization in delivering health-care services to foster competition and make consumer choice a more viable possibility for an increasing number of potential patients is also absolutely necessary to provide the right incentives to the most talented, best educated, mobile and entrepreneurial segments of the medical establishment to escape from the present humiliating environment of rent-seeking and corruption. It is widely

recognized that no reform can be carried out without the consent and active participation of this most important stakeholder group. At the same time, this is the only way to get rid of the vicious circle of shortage and monopolistic control that is really the hotbed of rampant corruption and abuse. Ironically, the ethical cleanup of the present health-care system very much depends on the introduction of open competition and free enterprise.

MODERNIZING SUB-SOVEREIGN FINANCE AND ADMINISTRATION

Local government autonomy in management, administration, and finance is truly one of the cornerstones of the new democracy evolving since the political changes of 1989. Self government, as it is conceived by most Hungarians, would be an empty concept without autonomy in providing a good number of public services including first of all such human services as health care, education, and social assistance to the poor. Apart from health care, public education is regarded as the basic pillar and most important task of local governance.

Public Education

Primary and secondary education was increasingly decentralized in Hungary well before 1989 (see chapter 9). However, the first democratically elected government of Hungary made great efforts to extend autonomy over public education to the lowest possible level of local government. As centralization was widely considered an evil in and of itself, the provision of educational services was decentralized far beyond what could be regarded as rational in terms of quality, finance, and management. The government offered generous financing to small villages to build school buildings and attract teachers. This politically motivated excessive decentralization created many schools in which the number of pupils was hardly more than that of the teachers, and led to a sharp decline in pupil hours per teacher. The regained freedom of churches and foundations to establish and operate teaching institutions further contributed to the organizational fragmentation and atomization of public education. This tendency may have been politically desirable, but in a country characterized by a steady decline in school-age children, it has led to a marked loss of efficiency (see chapter 9).

One has to be absolutely precise about the nature of the problem that emerged. Local autonomy at the lowest possible level is absolutely acceptable as far as curriculum is concerned. In fact, it is not local govern-

ments, but teachers—together with the parents—who are entitled to determine what should be taught within the broad framework of the basic national curriculum. But it is up to the provider of financial resources to establish the minimum size of classes and schools, teacher/pupil ratios, minimum weekly teacher workloads, and so on. These factors should be calibrated so that the scarce financial resources dedicated to public education are used to ensure the highest level of quality in the most cost-efficient way. Minimum standards, usually determined by the law, should be interpreted as thresholds for justified financing coming either directly or indirectly (through normative allocations) from the central budget. In the absence of such minimum standards the national educational budget will inevitably fall victim of endless political bargaining between the central and local authorities and between the Ministry of Finance and teacher unions.

Such a situation presented itself in Hungary in the early 1990s. To remedy the situation, the Law on Public Education was finally modified in 1996, and substantial normative rules were introduced to contain the proliferation of costs that flowed from the seemingly limitless fragmentation of the institutional structure of public education. Three important problems remain. First, minimum class-size standards are still well below corresponding Western ones. Second, the general civil-service pay scale still applies to teachers, determining the actual level of individual remuneration largely on the basis of original professional qualifications as expressed by degrees and diplomas and years of service. Third, and perhaps most importantly, the fragmentation of the primary-education system reflects excessive decentralization in government, finance, and administration, which can be reversed only by either separating public education from local governments or by a comprehensive reform of the local government system itself.

According to the Act on Local Self Governments, it is the obligation of municipalities to provide public education (see chapter 15). In other words, the lowest-level local governments have no choice but to establish, operate, and finance institutions that offer at least primary education; while at the same time they have the right to transfer ownership, management, and financing of secondary educational institutions to the county-level self governments. The latter are obliged to accept this transfer—but, of course, they are entitled to make any kind of rationalization afterward. In fact, this is exactly what has happened in Hungary as a consequence of the introduction of comprehensive austerity measures at the level of the central budget in 1995.

Given the flexibility of the state subsidy allocation (that is, normative subsidies automatically granted by the central budget to the local government running each school) and because this capitation-type of supplementary financing usually covers no more than 50 to 60 percent of local expenditures on public education, local governments have every incentive to try to get rid of as many non-core (secondary, vocational, special, etc.) educational facilities as possible. Larger cities, in turn, may be interested in receiving more students from neighboring villages and smaller cities because they can increase the share of capitation revenue in financing their own public-education expenditures. Thus, the new system of partial central financing coupled with undisturbed local autonomy seems to have introduced the right incentives against excessive decentralization—at least at the level of secondary education.

The growing inequalities in the quality of education among schools in (larger) cities and villages (see chapter 9), however, reveals the most fundamental underlying problem of the Hungarian public-educational system: the seemingly unsolvable contradiction between almost unlimited local autonomy and quite high-income differentials among localities and the right of students to have access to quality public education irrespective of their residences. As equalizing educational opportunities would require much more central redistribution of revenue and inherently limit local self government, no optimal arrangement can be found within the present system of subsovereign governance.

Local Government Reform

The underlying problem that largely explains the excessive decentralization of public education is the quite unprecedented fragmentation of the institutional structure of local governments in Hungary (see chapter 15). Having almost 3,200 autonomous bodies representing electoral constituencies—all with the same level of legitimacy—makes it extraordinarily difficult—if not impossible—to raise the issue of political and administrative consolidation.

Since the general principle of subsidiarity stipulates that public services should be provided at the lowest level of government that is "administratively and economically" capable of doing so (see chapter 15), why not enlarge the municipalities?

This is clearly one of those areas in public finance were the negative legacy of the communist system has created a major obstacle to rational development. As a backlash against the political centralization that created powerless local councils—and many of these empty bodies of local

representation fell victim to a constant drive for administrative consolidation—people now want full autonomy at the lowest possible local level. After the 1989 political changes almost all previous consolidations were undone, and the process is far from being finished. Since the present system of central subsidies tends to favor the smaller—and usually poorer—local governments, there is an additional impetus to vote for carving out even smaller units from the already non-viable jurisdictions.

To reverse this trend will not be easy and will possibly take several decades. It will require much political campaigning and repeated explanation of the unsustainablity—or at least inefficiency—of the present fragmented system. There are enormous vested interests blocking any consolidation carried out in a democratic way. The sheer number of council members and independent mayors—many of whom sit in Parliament as well—makes it extremely difficult to generate political momentum for any consolidation that could also be accepted by the populace. The emotional value attached to the existing set of atomized local governments will decline only after a relatively lengthy learning period of growing disillusionment about the far-from-efficient delivery capacity of the present system.

There are, however, good traditions to build on. For many decades before and after World War II there was an intermediate level of subnational governance sandwiched between the local community and the powerful counties that represented feudal—and then central—government interests for centuries. In Hungarian, this intermediate level was called *járás,* which literally refers to a geographic area that could be crossed, at that time, within a day by horse-pulled cart or carriage. This layer of administration was first emptied and later eliminated by the communist governments as superfluous (as it really was in a system that inherently lacked any autonomy). However, it still has a relatively favorable memory as an efficient administration even under the communist system. Therefore, I believe it can constitute a good focal point for eventual consolidation of the lowest level local governments in the not-so-distant future.

The potentially most shocking part of this proposal is not the recreation of the *járás*-level self government in itself, but that the *járás* is conceived as the lowest unit of subnational governance; it is not proposed as an additional level in the hierarchy of self government and administration, but a substitute for most of the village-level administrations and autonomous bodies as well.

Consolidation of the administrative function of local governments is already being fostered by the need to appoint joint administrators for the smallest villages. Nevertheless, establishing a self government as represented by an elected body having rights to issue rulings with or without fiscal impact is still considered an inalienable right of all historically or geographically distinguishable local communities. Political consolidation—the amalgamation of elected bodies—as opposed to mere administrative consolidation—the creation of unified offices for joint administration—through the evolving tendency of establishing "associations" for performing different functions jointly (for example, public schooling, wastewater treatment) should be encouraged. The accumulation of positive experience in joint management could not only facilitate progress toward the acceptability of consolidation, but also provide insights into the question of optimal size and function mix of the future *járás*-level self governments.

Joining the EU and tailoring domestic subsidies to matching funds could also encourage the voluntary association of small municipalities. People will sooner or later realize that the only way to reconcile the otherwise inherently conflicting requirements of local autonomy with the obligation to provide a relatively wide range of quality services to the local community is to engage themselves in wider political associations with their fellow citizens. Four important trends will help further this painful and controversial process in which hearts usually move much less rapidly than minds. First, improved physical and virtual mobility as a consequence of development of transportation and communication will make the world much smaller; people will recognize the need for better coordination and growing interdependence. Second, more and more services will be considered basic; that is, to be provided by the local community. Not only primary but also secondary education, not only family-doctor service but also outpatient specialized care, will be demanded from the most directly accessible part of the hierarchy of subnational governments. Third, the same high level of quality will be expected to be delivered everywhere by service providers, which will prove impossible without joining forces in financing, management, and control. Fourth, the enormous investment needed to upgrade and equalize the quality of services across communities and regions will demand larger units of self government and administration.

To put more flesh onto the bones—to add more substance to local autonomy—the scope of local taxation needs to be widened. Currently the financial autonomy of local governments is more developed on the

expenditure side of the fiscal balance sheet. Not even normative grants coming from the central budget are earmarked, and their spending is fully unconditional (see chapters 9, 10, and 15). But this is a second-best substitute for true autonomy. It is well known that access to locally generated revenue (the share of local governments in the revenues of personal income tax [PIT] collected from local citizens) was increasingly limited by the need for nationwide equalization in Hungary. New forms and applicable rates of local taxation were limited both by law and the pervasive nature of the central tax burden (including social security contributions). As further progress is made in reforming social security and rolling back the frontiers of paternalistic state intervention and income redistribution by the central budget, more scope will be opened for local taxation (see chapter 17).

But again, to avoid growing inequalities in the quality of services provided by local governments and at the same time mobilize maximum amount of local revenues and initiatives, relatively large subnational entities can provide the best incentive structure to reach a dynamic equilibrium between these conflicting goals. For instance, in the case of a *járás*-level local government, the application of a local real-estate tax could provide substantial revenue, while making it possible to finance public education in a more equalized manner—at least within its own jurisdiction—without cutting drastically the visible link between revenue and expenditure for most of the people.

Taxation is an outright political issue; local taxation even more so. There is no such thing as an optimal structure and rate of taxation irrespective of what people consider adequate and justified at a particular moment under specific circumstances. Local taxation, even more than nationwide, is "optimal" if it reflects and expresses the best incentives and values of solidarity of the local society. The precise match between the two can be measured by the rate of voluntary compliance and the balance of inward and outward migration (other factors being equal). More reliance on real-estate taxation (see chapter 17) (but not overall property taxes) and fewer efforts to share business revenues through local profit taxes could provide the best incentives to combine human and infrastructure development promoted by municipal authorities with growth in employment and revenues fostered by the expanding business community. Local residents would find it more in their interest to pay local taxes if they contributed directly to growth in the value of their most important assets (their children and their houses) and if these taxes and the services financed by them are seen to work in mutually reinforc-

ing ways. Last but not least, compliance will be further enhanced by the fact that real estate is highly visible; in a system of precise registry of title, deed of mortgage, lien, and transactions, it is relatively easy to target and capture the corresponding fiscal revenues.

In any case, if local autonomy can be further enhanced only by allowing more room for local revenue generation, it is imperative to scale back even more aggressively the share of income centralization in the central budget (see chapter 17). This would, however, require a very aggressive cutback on central expenditures, which, in turn, could only be carried out by a comprehensive redefinition and reallocation of roles and responsibilities among all levels of government in all subsectors of public finance. Hence, the reform of intergovernmental relationships truly cuts across the whole spectrum of public finance.

SHORT-TERM SOCIAL POLICY ISSUES

Former opposition parties formed the new government after the May 1998 parliamentary elections, but one summer is hardly enough for a new government to establish itself and certainly too short for it to elaborate precise proposals in the area of public finance reform. Nevertheless, due to the intense public debate on the main issues before and after the elections, and the very high level of public awareness this reflects, it is likely that the machine of soci(et)al (re)engineering will be set in motion very soon.

The leaders of the new government have repeatedly expressed their desire to reverse specific measures taken by the previous government in two public expenditure areas: reintroducing family allowances on the basis of universal entitlement, and abolishing tuition fees for higher education. Given the enormous importance of these reform steps as an integral part of the macroeconomic 1995 stabilization program and the fundamental change of values they represented at that time, it is imperative to address them here.

Universal Entitlements Versus Means-Testing

One of the most remarkable and highly visible trends in income and wealth-distribution patterns throughout the 1990s has been the rapidly growing inequality in all countries in transition, including Hungary (Milanovic 1998 and World Bank 1996). While differences in current income had been kept very small and the accumulation of private assets very limited under the previous regimes, the sometimes very chaotic and

wholly unregulated emergence of capitalism drove these differences to the extreme in many places. Hungary was fortunate in being able to manage a more gradual and balanced transition from state collectivism to free market, which also saved the country from some of the excesses of capitalism. Nevertheless, in any country where salary differentials are growing and an increasing number of people have access to capital income, poverty has become much more concentrated among the unemployed, low-educated, and otherwise disadvantaged groups in society. It is obvious, therefore, that social assistance should be somehow targeted to those in need, rather than universally applied.

When means- (income) testing was introduced for family allowances in 1995-96, critics argued that PIT records reflected the real income and wealth status of households in Hungary quite incorrectly, and that the number of children had a strong correlation with poverty. This was a good argument for keeping family allowances universally available for larger families (see chapter 10), but not a compelling one against means-testing in general. Unfortunately, the Hungarian Constitutional Court ruled against the application of a wealth-test alongside the means-test, and Parliament compromised by setting high per-capita income limits, resulting in rather weak targeting that excluded less than 10 percent of the formerly eligible populace. Nobody can reasonably argue that 90 percent of the families living in Hungary are poor or need to be declared poor.

Therefore, the solution is not to abandon means-testing but to make PIT records more realistic, introduce wealth surveys, and create a strong regulatory and ethical environment in which milking the state for petty cash is widely regarded as shameful.[16] At the same time it has to be acknowledged that better-off families have a more noble motivation to raise children than to raise their income 1 to 4 percent.

Family allowances are only one of the forms of social transfers, and due to mixed targeting objectives involving both horizontal and vertical equity considerations, they are sometimes not even regarded as social assistance (see chapter 10). But if it is no longer to be offered on the basis of universal entitlement, it is clear that the direction of further reform is to sharpen targeting by way of means-testing for all other social transfers, which are more of a classical assistance nature, rather than reversing this trend in general.

Investing in Human Capital

Century-old European social democratic tradition expresses a strong desire for universal entitlements for various types of social assistance, both money transfers and in-kind benefits. One of the most important and controversial elements of the latter is universal free access to higher education. The weakest point of this concept is precisely the universality of access, regardless of whether it is free. Only a fraction of the population has a university degree in even the most advanced countries, and only a minority of the relevant age groups attend higher educational institutions (see chapter 9).

The concept of free higher education extends the principle applied in primary and secondary public education. The fundamental difference that is disregarded here is that universality is (almost) completely achieved in public education by the successful enforcement of compulsory attendance, therefore large subsidies at the point of sale make little sense in terms of benefit allocation.

Higher education has also increasingly become a quite well-calculated investment in human capital with almost precisely measurable returns on investment. Differences in salaries and life opportunities are clearly taken into account when decisions are made to participate in higher education and make efforts to get a university degree.

On the basis of equal opportunities and social justice, therefore, no argument can be made for assuring enhanced life opportunities, much higher salaries, and multiple choices for a minority of the population to be financed by the taxes of those who will never have access to these investment opportunities and will never enjoy the high returns on their much-improved human capital. Free higher education is inherently antisocial because of the lack of universal access to the investment opportunities it involves.

This may sound like a shocking conclusion, but it provides a very useful starting point for a realistic effort to reconcile the conflicting requirements of offering adequate access to higher education to the talented, but poor, while at the same time keeping the costs of higher education under control and avoiding too much socially unjustifiable intra- and intergenerational redistribution of future income and wealth.

Of course, universal access is neither desirable, nor feasible. Strict entry exams need to be in place to ensure the maximum compatibility of

the supply of graduates from higher educational institutions with the forecasted future demand of the labor market. Any relaxation of the rules ensuring the best quality and enforcing the right quantity at entry would result in a waste of scarce resources for both the central budget and the individual higher-educational institutions, and a loss of efficiency in long-term human capital development. The importance of a precise and detailed plan to govern admittance to state-financed high-educational institutions cannot be overestimated.[17]

If admission is merit-based and far from universal, and students are able to privatize much of the yield of the investment in their own human capital made mostly by the whole society rather than themselves, it is completely justified from both economic and social points of view that they should contribute to that investment themselves.

Having accepted tuition fees as a matter of principle, the only real bottleneck is that students coming from poorer families are more at a disadvantage than those under free higher education. This problem, however, can be adequately taken care of by a slight modification of the financial arrangements for all students. A three-pillar model could be conceptualized easily. First, everyone should pay a tuition fee to cover at least the direct costs of higher education. Second, the student capitation support should be very strongly performance-related. Third, special social allowances could be offered to bright students from poor families. If these allowances are adequately calibrated and firmly tied to the second pillar, an optimal solution harmonizing the conflicting goals of efficiency, cost control, equal opportunity, and social justice can be constructed. The bright and wealthy will find no difficulties. The bright and poor will get performance-related scholarships complemented by social assistance that should make it possible for them to pay tuition. The less-talented and wealthy will contribute considerably to the financing of the higher educational system by paying much and getting no monetary support. The less-talented and poor will not attend the universities.

MESSAGE FOR THE FUTURE

The debate on family allowances and tuition fees that has been reopened clearly highlights the intensive search for new societal values and the need to reconstruct solidarity for the next century. What matters here is not so much the fiscal impact of either solution, which is quite modest, at least in the short run, but the establishment of the proper set of individual

incentives, and to reconcile these incentives with the need for more social justice. The message of this book is that, in all areas of public finance, it is possible to find new institutional arrangements that will allow more resources to be allocated according to individual preferences—hence stimulating more-rapid economic growth while providing better protection to the needy. This is a realistic and attainable goal, not only in Hungary, but in every former communist country facing the seemingly impossible task of building a market economy, democracy, and civil society.

NOTES

1. International Monetary Fund 1997.
2. See chapter 5, table 5.1.
3. See chapter 5, table 5.1.
4. According to data from the National Bank of Hungary and the Central Statistical Office of Hungary.
5. This was also acknowledged by the Hungarian Constitutional Court when it changed its views on social rights even though it postponed the reforms of maternity and childcare payments in September, 1995 (see chapter 16).
6. PAYG (pay-as-you-go); that is, current benefits are supposed to be covered by current contributions (see chapter 7).
7. See paragraphs 19 and 33 in Law LXXX(1997) on persons entitled to social security benefits and private pensions, as well as the coverage of these services.
8. Depending on future demographics and the efficiency of collecting contributions and other factors, the overall rate of pension contributions could also be lowered.
9. Law LXXXI (1997) on the social security pension, paragraph 7.
10. Law LXXXI (1997) paragraphs 62-63.
11. Pension reforms are in the pre-implementation phase in Kazakhstan, Latvia, and Poland, and in the design and public-discussion phase in Croatia, the Czech Republic, and Slovenia.
12. After having won the May 1998 parliamentary elections, the leader of FIDESZ (Hungarian Civic Party), Prime Minister designate announced his intention to abolish the whole structure of self government over the HIF.
13. Law LXXX, paragraph 19.
14. Law LXXX, paragraphs 27, 29.
15. There were repeated—but so far failed—attempts to introduce such a general health tax during 1996-97.

16. For families in the highest income decile the share of family allowances in total income was negligible even before the transition. See chapter 10, table 10.4.

17. "Admission numbers are still driven by the demands of institutions that seek to maintain or expand their capacity and not, for the most part, by the current or future needs of the labor market" (chapter 9).

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