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INNOVATION, INCLUSION AND INTEGRATION

*From Transition
to Convergence
in Eastern Europe
and the Former
Soviet Union*

Pradeep Mitra



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Europe and Central Asia Region



THE WORLD BANK

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Foreword

Since the fall of the Berlin Wall the transition countries of Eastern Europe and the former Soviet Union have witnessed dramatic changes in outputs, the nature of jobs, standards of living, patterns of trade and the quality of education and health services. Yet, during much of this period, institutions that shape firm behavior and outcomes, most notably the business environment, have been converging toward those in developed market economies. The countries that acceded to the European Union in 2004 are the furthest advanced in this process. The countries of the Commonwealth of Independent States (CIS) are followers but are some distance behind.

The six regional flagship studies produced by the Europe and Central Asia Region of the World Bank during the last five years, of which this volume is a synthesis and culmination, attest to this evolution from their particular perspectives. Those studies have covered productivity growth, the enhancement of job opportunities, trade and integration, migration and remittances, poverty and inequality and the challenges posed by aging populations. Productivity growth, the only viable route to lasting prosperity, is increasingly driven in the new member states of the European Union by improvements in how production is organized and carried out at the level of firms, akin to what happens in developed market economies. In the CIS countries,

by contrast, the entry and exit of firms and the reallocation of resources across existing firms are relatively more important for productivity growth, reflecting the need to redress the historical misallocation of resources. Although employment growth has been sluggish almost everywhere, constraints to its expansion are to be found more in shortages of skills in the new member states of the European Union that are the furthest advanced in the transition, as opposed to in southeastern Europe and the CIS countries, where continued downsizing in state-owned and privatized firms, once again the product of legacy, more than offsets job growth in *de novo*, that is, always private, firms. Productivity growth, together with the use of public transfers, has been highly successful in reducing income poverty since 1998 even without notable gains in employment. But people excluded from the labor force are significantly more dissatisfied with life, so identifying and addressing the constraints to expanding employment should be an important complement to productivity growth in building inclusive societies.

It is remarkable that the collapse of the region's international trade at the onset of the transition has given way, in barely a decade and a half, to a situation where the transition countries are, for the most part, normally integrated into the world economy. But the nature of the integration varies greatly across countries. Enabled by foreign direct investment, a number of the new member states of the European Union participate heavily in producer-driven global commodity chains, such as those for automobiles and information technology, and export predominantly capital and skilled-labor-intensive products. Domestic and external factors worked in harmony as prospective EU accession was used to lock in those reforms to the business environment that are conducive to rapid productivity growth and deeper integration into the world economy. In contrast, the CIS countries attract limited amounts of foreign direct investment and export products intensive in unskilled labor and natural resources. The extent to which countries without a European perspective can use outside mechanisms to lock in reforms to the business environment necessary for participation in network trade and upgrading the skill content of their exports remains an open question.

The transition countries, together with Turkey, account for more than one-third of world emigration and immigration, if movements between industrial countries are excluded. Now that the large-scale displacements associated with the fall of the Berlin wall and the disintegration of the Soviet Union are over, migration is increasingly driven by broadly economic considerations, although these are tempered by the influence of societal factors. Expected income differen-

tials between sending and receiving countries, together with expectations of future economic growth in sending countries as a result of improved policies and institutions, create incentives for both migration and return migration or circular migration—the process in which migrants return home for short periods before migrating again. It is recognized however that migration involves complex political, economic and social factors and this book therefore suggests that some policy experimentation might be needed to improve the frameworks that currently regulate temporary circular migration.

An issue of overarching concern to a large swath of transition countries in the western part of the region is the rapid aging of populations, a development that will shrink the share of the working age population (15-64 years) in total population rapidly after 2015 and pose a serious challenge to economic growth. Offsetting it will require accelerating productivity growth through renewed emphasis on reforms of the business environment as well as making more effective use of countries' human resources through lifelong learning, labor market reform and raising and equalizing retirement ages for men and women. Furthermore, fiscal pressures arising from aging need to be contained by indexing pensions to price inflation rather than wage growth and introducing a category of long-term care that is part medical and part social, located between home care and primary care. Such a policy package can be supplemented by international labor migration from countries, such as those in the eastern part of the region and beyond, that have younger and growing populations.

All the reports in this series offer specific policy recommendations that are intended to help the countries of Eastern Europe and the former Soviet Union promote economic growth and foster higher living standards in the rapidly changing world in which they are undertaking the transition to a market economy. I hope that this report, like those that have preceded it, will stimulate debate, enhance understanding and encourage action to help realize prosperity for all.

Shigeo Katsu
Vice President
Europe and Central Asia Region
World Bank

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tarovich, Alia Moubayed, Francis Ng, Bryce Quillin, Makiko Shirota, Victor Sulla and Salman Zaidi.

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Rhodora Mendoza Paynor was responsible for processing the document and, together with Elena Kantarovich, helped prepare it for publication. Bruce Ross-Larson edited the report. The World Bank's Office of the Publisher coordinated the book design, final editing and production.

Abbreviations and Glossary

BEEPS	EBRD-World Bank Business Environment and Enterprise Performance Surveys
CIS	Commonwealth of Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan)
EBRD	European Bank for Reconstruction and Development
ECA	The Europe and Central Asia region of the World Bank is an administrative regional country grouping. It consists of Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Poland, Romania, the Russian Federation, Serbia, the Slovak Republic, Slovenia, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan.
EU	European Union
EU8	Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, and Slovenia
EU10	new member states of the European Union (the EU8 plus Bulgaria and Romania)

EU15	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom
FDI	foreign direct investment
GDP	gross domestic product
GNP	gross national product
HP7	high-performing countries (Czech Republic, Estonia, Hungary, Poland, Slovak Republic, Slovenia, and Turkey)
ILO	International Labour Organization
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
NACE	Statistical Classification of Economic Activities in the European Community
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
PISA	Program for International Student Assessment
PPP	purchasing power parity
SEE	Southeastern European countries (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the former Yugoslav Republic of Macedonia, Romania, and Serbia and Montenegro)
U.N.	United Nations

Overview

Published at the turn of the millennium, *Making Transition Work for Everyone* called attention to an unprecedented increase in poverty in Eastern Europe and the former Soviet Union from the onset of transition until 1998 (World Bank 2000). Inequality had increased steadily in all countries, in some to rival the most unequal countries in the developing world. The achievements in education and health during the years of socialism were under strain—to the detriment of poor families and the long-term economic mobility of their children.

Much of this grim litany could be attributed to the collapse in output and institutions that attended the beginning of transition everywhere—and to the failure of the long-awaited recovery of GDP in the Commonwealth of Independent States (CIS) to arrive until after 1998, the year of the Russian Federation's financial crisis.¹ The ensuing decade has been kinder to the transition countries. Helped externally by a benign global environment and internally by capacity underutilized on account of the recession, rapid economic growth in the CIS—among the fastest growing developing regions during this period—took its GDP per capita to pre-transition levels by 2007. Eastern Europe, where recovery had taken hold in 1993 after a shorter and shallower recession, grew steadily as well. As a result, 50 million people—out of 400 million in the region—moved out of absolute poverty between 1998/99 and 2005/06.² Inequal-

ity also fell to levels considerably lower than in East Asia and Latin America. Growth since 1998 generally came from rising aggregate labor productivity, or output per worker, which allowed broad-based real wage increases that reduced poverty, not from gains in employment or a rising share of the working age population (15-64 years) in total population.³

Underneath the headlines of the slump and recovery is a more enduring development: the convergence of institutions that shape firm behavior and outcomes toward those in development market economies. This book explores the contours of convergence by addressing the following questions:⁴

- Can productivity growth, the main determinant of poverty reduction, be sustained?
- Are key aspects of the business environment converging toward those in market economies?
- To what extent is sluggish employment growth a legacy of transition? Can poverty be further reduced if employment prospects do not improve?
- How well are the transition countries integrated into world trade? To what extent is international migration in the region driven by broadly economic considerations?
- What policies can help offset slowing growth due to aging populations? Can international labor migration be part of the policy package?

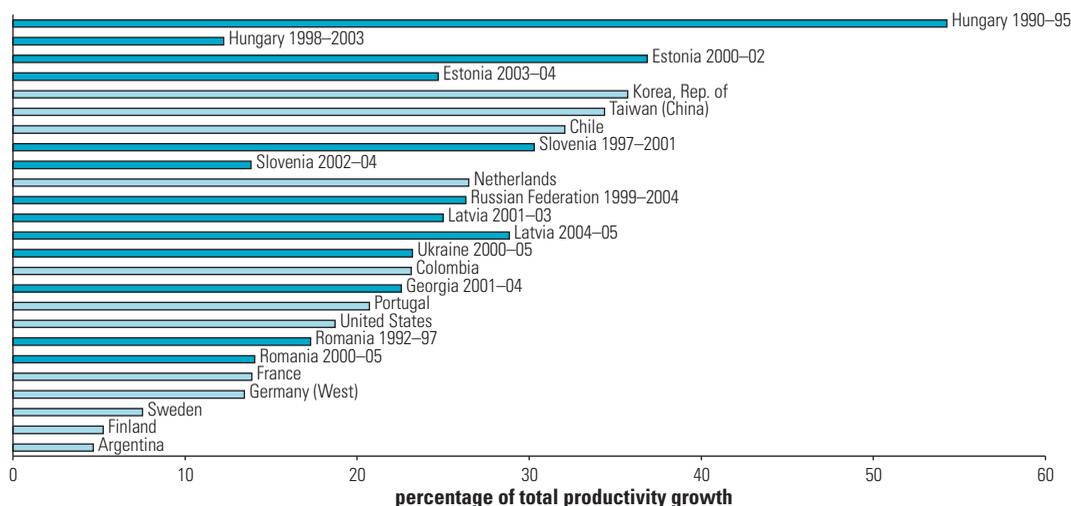
Innovation

Accounting for Productivity Growth

The transition from command to market economies at the level of broad sectors saw a pattern of deindustrialization and expansion of services in value added. Oversized industrial sectors contracted towards norms more characteristic of market economies. Services, which had been repressed under central planning, expanded everywhere. Labor's movement into services increased productivity in the EU8 and some Southeastern European countries where productivity in services was higher than in agriculture and industry. In contrast, labor's move into services reduced productivity in the CIS countries where productivity in services was lower than in industry.⁵ The low income CIS countries also saw an influx of labor into low-productivity agriculture, which played the role of a social safety net.

Within broad sectors, productivity gains in manufacturing during the transition occurred largely within industries, not from reallocating labor from less to more productive industries. At the level of firms, where the core activity of restructuring took place, many of the gains in labor productivity came from improvements in efficiency within firms (the within firm effect), as in industrial and developing countries. But the beginning of the transition also offered many opportunities to correct the historical misallocation of resources. New firms could enter and occupy market niches that were thin or did not exist in the command economy (the entry effect). Firms that were no longer viable once they faced competition in a market economy had to shut down, raising the average productivity of surviving firms (the exit effect). Entry and exit contributed more to productivity growth in the relatively early years of the transition in Estonia (2000–2002), Hungary (1990–1995), Slovenia (1997–2001) and, to a lesser extent in Romania (1992–1997) than in industrial and developing economies (Figure 1). Productivity improvements were also brought about from the reallocation of labor across continuing firms (the between-firm effect). This too was an opportunity to redress the distorted industrial structure inherited from the central planning period.⁶

FIGURE 1
Firm Entry and Exit Contribute More to Productivity Growth in Transition Economies than in Industrial and Developing Economies



Source: Bartelsman, Haltiwanger, and Scarpetta 2004 for comparator countries. Brown and Earle 2007 for Hungary, Romania, Russian Federation, Ukraine, and Georgia. Bartelsman and Scarpetta 2007 for Estonia, Latvia, and Slovenia.

Note: Data show the sum of the contributions from new firms and exiting firms to total labor productivity in manufacturing. The bars for the Russian Federation and Ukraine for the early years of transition are not shown because the prolonged decline in output implies that measured labor productivity was negative during those years. See also the note to figure 2.4.

Entry, exit, and the between-firm effects were also relatively more important for productivity growth in late-reforming CIS countries, such as the Russian Federation and Ukraine after the 1998 crisis. It is important to note that productivity growth after the transitional recession in the major CIS countries resulted not only from restoring incumbent firm productivity to pre-transition levels. It also came from addressing the historical misallocation of resources through entry, exit, and reallocation, an agenda that continues to be important for slower reforming countries.

Toward Productivity Growth within Firms

As countries progress in the transition, the number of market niches that new entrants can occupy falls. And as the legacy of transition is gradually extinguished, fewer potential exiting firms remain unviable. In advanced reformers, the relative importance of entry and exit declines to levels seen in developed market economies and growth then relies even more on productivity improvements within firms. The disappearance of opportunities to redress the historical misallocation of resources signals the end of the transition.

But the end of the transition does not mean that entry and exit become unimportant. There is a strong and positive association in developed market economies between the contribution of entry and exit to productivity growth and within-firm productivity growth. Such an association has yet to emerge in the transition countries in general, where net entry has been a mechanism for changing the supply side of the economy and does not as yet signal the overall state of competition in the market. Only after the high rates of entry and exit have settled down can firm turnover be expected to discipline incumbents.

Boosting productivity requires firms either to innovate, developing knowledge new to the world, or to absorb knowledge, integrating and commercializing knowledge new to the firm but not to the world. Indeed, there are important complementarities between innovation and absorptive capacity because the generation of human capital and new ideas and associated knowledge spillover help build absorptive capacity. Conversely the absorption of cutting-edge technology inspires new ideas and innovations. The activities to accomplish innovation and knowledge absorption, all falling under the rubric of deep restructuring, include adopting new products and processes, upgrading old products and processes, licensing technology, improving organizational efficiency, and certifying quality.

What drives productivity growth in firms? A business environment that offers competitive markets, a deep financial sector, good

governance, and superior skills and infrastructure. This finding is unsurprising but empirically substantiated using a new data base that includes corporate financial data for more than 60,000 firms in 14 countries of the region and 3 rounds of enterprise surveys conducted in virtually all the transition countries.⁷ Productivity growth is higher in firms when they face stronger pressure from domestic competitors to develop new products and markets. When they are in industries that rely more on external finance in countries with more developed financial sectors. When rules and regulations are more predictable and there is greater confidence in the legal system. When they offer more on-the-job training to their workers. When the availability of mainline telephone services is higher and the incidence of power outages is lower⁸.

These attributes of the business environment affect not only improvements within-firm but also the other components of productivity growth. Competition removes barriers to firm entry, exit, and reallocation. A deep financial sector alleviates liquidity constraints faced by start-ups. Investment in human capital and infrastructure makes it easier for workers to move from declining to expanding activities and sectors.

Convergence of the Business Environment

Are key elements of the business environment in transition economies, which is itself shaped by countries' underlying institutions, converging toward those found in developed market economies?

Competition and Market Structure

Competition has been increasing in the transition economies over 1999—2005. A first measure of competition reported by manufacturers and service sector firms in the Business Environment and Enterprise Performance Survey (BEEPS), which was conducted in 1999, 2002, and 2005 in the transition countries and in developed market economies in 2004-2005, is the number of competitors an enterprise faces in its product or service lines in the domestic market: none (monopoly), 1 to 3 (moderate competition), or 4 or more (strong competition). Of the firms facing moderate competition in 2002, 34 percent in the transition economies faced strong competition in 2005, compared with 22 percent in the developed market economies, viz., West Germany and the cohesion countries of Greece, Ireland, Portugal and Spain. Of the firms that faced strong competition in 2002, 18 percent in transition economies faced less competition in 2005, compared with 15

percent in the developed market economies. In 2005 the environment was the least competitive in the low income CIS countries and the most in the EU8 and the cohesion countries. Indeed, the EU8 countries were fairly close to the cohesion countries in market structure.

Another measure of competition that is important for productivity growth is the extent to which pressure from competitors and customers prompts restructuring. Pressure from foreign competitors on firms to develop a new product or reduce costs is as important for the transition countries as for developed market economies. It has always been important over 1999-2005, but it is stronger in the EU8 and Southeastern Europe than in developed market economies. And it is weaker in the CIS countries. These are more distant from the most important advanced market area: the European Union. Since domestic productivity levels and product quality in these countries are low, domestic producers can occupy niches less exposed to international trade. Pressure from domestic competitors and customers to develop a new product or to reduce costs was not always as important but has been growing everywhere. Pressure from domestic competitors varies less than that from foreign competitors across transition country groups, but it is nevertheless the highest in the EU8 (comparable to West Germany), followed by Southeastern Europe (comparable to the cohesion countries), and lowest in the low income CIS countries.

Competitive pressure from foreign competitors and customers is a spur to deep restructuring in the transition economies. In this they differ from the developed market economies, where the impetus is competitive pressure from domestic competitors. But the transition economies are becoming more like the developed market economies. Foreign competition was always there. But early on firms could fill market niches virtually nonexistent under central planning and avoid domestic competition. But as economies matured, there is more successful homegrown competition, which heats up over time. High quality imports were always a source of competition, but high quality domestic production is new. When it comes to the importance of competition for restructuring, the transition economies are following in the footsteps of developed market economies. The EU8 and Southeastern European countries are in the lead, with the CIS country groups some distance behind.

Finance and Its Structure

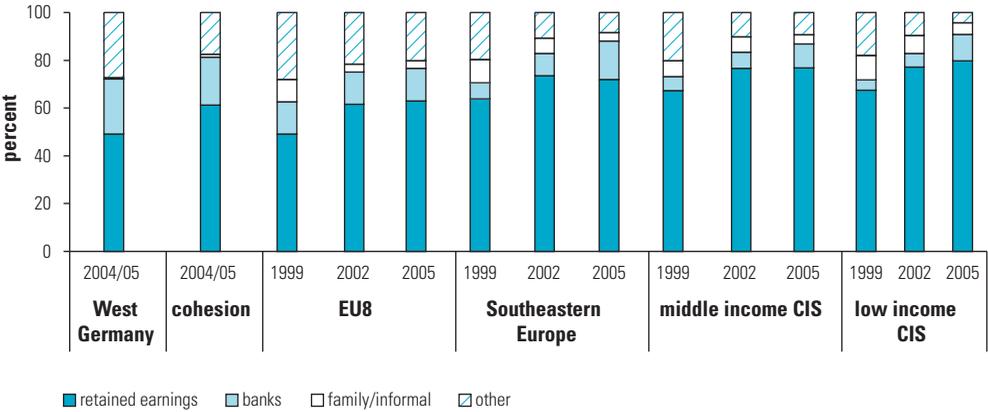
Finance makes deep restructuring possible in both transition economies and developed market economies. The structure of financing for fixed investment shows a growing reliance on retained earnings over 1999–2005 in all transition country groups, towards shares higher than

in the developed market economies (figure 2). The reliance on formal finance is generally less than in developed market economies, although the shares for the EU8 and cohesion countries are similar. But this is not because of a decline in the role of banks, which remained stable in the EU8 and increased for the other transition country groups. And the role of equity finance was small. The greater reliance on retained earnings instead reflects a decline in loans from family, friends, and money lenders—a maturing of the business and financial sectors in the transition countries, not a decline in the institutions of formal finance.

The structure of finance for private firms—de novo and privatized—in the transition economies differs considerably from that for private firms in the developed market economies in by now expected ways. Private firms in the transition economies rely more on retained earnings, more on family and informal sources and less on bank financing and other sources compared to private firms in the developed market economies (figure 3).

But these differences do not arise primarily on account of differences in observed firm characteristics such as size, sector, location, export orientation, and majority ownership (“endowments” in figure 4). Nor do they arise primarily on account of differences between developed market economies and transition economies in the underlying relationship linking those characteristics to the structure of finance (“coefficients” in figure 4). Instead, they are due more to “autonomous” factors having to do with the maturation of the business and financial sectors in the transition economies (figure 4).

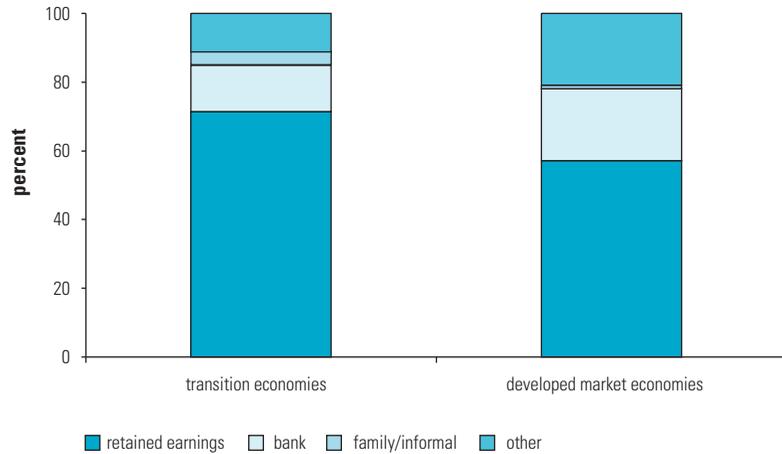
FIGURE 2
The Structure of Finance for Fixed Investment Is Maturing but Has Not Converged to That in Developed Economies



Source: Mitra, Muravyev, and Schaffer 2008.

Note: Equity finance is small in the transition countries and is absorbed in “other”

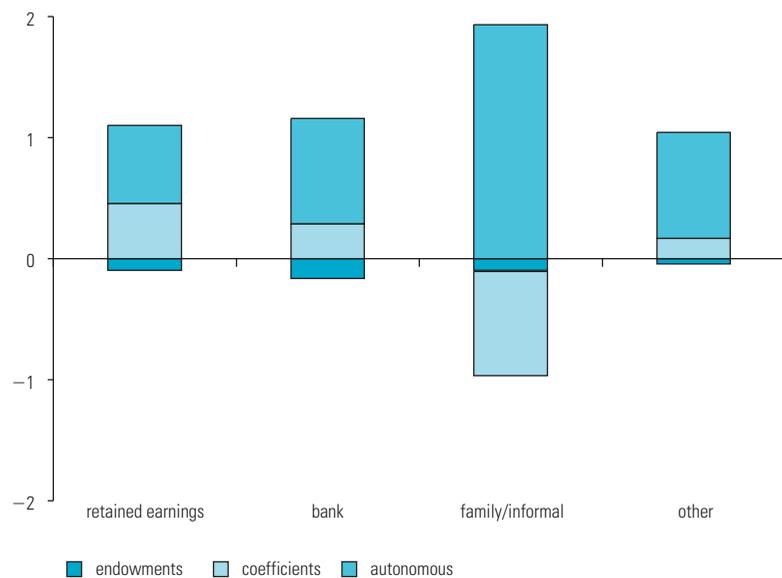
FIGURE 3
The Structure of Finance for Fixed Investment in Private Firms in Transition Economies Differs from Developed Market Economies, 2005



Source: Mitra, Muravyev, and Schaffer 2008.

The structure of financing for fixed investment in de novo firms—those always in the private sector—resembles that for privatized firms in the transition economies (figure 5). There are some differences inasmuch as privatized firms rely relatively more on bank financing

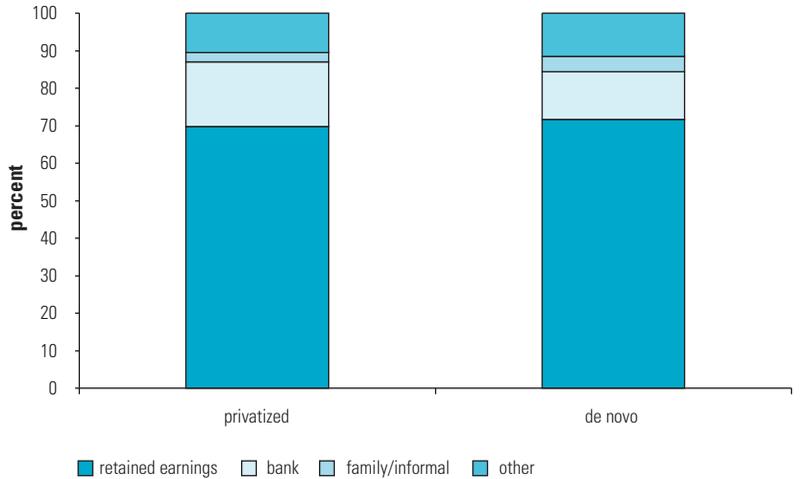
FIGURE 4
The Difference in Structures of Finance between Private Firms in Transition Economies and Market Economies Is Due to Autonomous Factors



Source: Mitra, Muravyev, and Schaffer 2008.

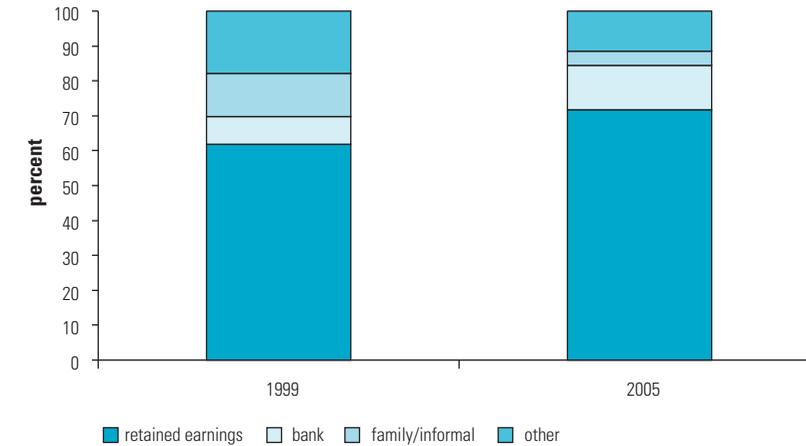
and less on retained earnings than de novo firms. And the structure of finance for de novo firms over 1999-2005 shows a shift towards retained earnings and banks and away from family and informal financing (figure 6). In summary, these comparisons suggest that de novo firms over 1999-2005 have become more like privatized firms and together they have become more like developed market economy firms with regard to how firm characteristics relate to financing, a double convergence.

FIGURE 5
The Structure of Finance for Fixed Investment Is Similar in Privatized and De Novo Firms, 2005



Source: Mitra, Muravyev, and Schaffer 2008.

FIGURE 6
Structure of Finance for De Novo Firms, 1999 and 2005



Source: Mitra, Muravyev, and Schaffer 2008.

Lessons

Three lessons can be drawn from the evolution of productivity and the business environment in the transition countries.

- Countries rely increasingly on productivity growth within firms as they progress in the transition. This is important for countries less advanced in the transition as well but they also need to address the legacy of transition by focusing relatively more on entry, exit and reallocation. Improvements within firms call for deep restructuring to bring about innovation and absorption of knowledge.
- Productivity growth within firms requires a supportive business environment that delivers competition, a deep financial sector, good governance, and superior skills and infrastructure. These attributes of the business environment are however also important for firm entry and exit and reallocation of resources between continuing firms.
- Competition and market structure is a key element of the business environment. So is finance. Both are converging towards structures in developed market economies, with the caveat that the structure of lending for fixed investment still reflects a maturing of the business and financial sectors in the transition economies.
- The EU8 are farthest along in the process of convergence, followed by Southeastern European economies, with the CIS countries being some distance behind.

Inclusion

Employment Growth

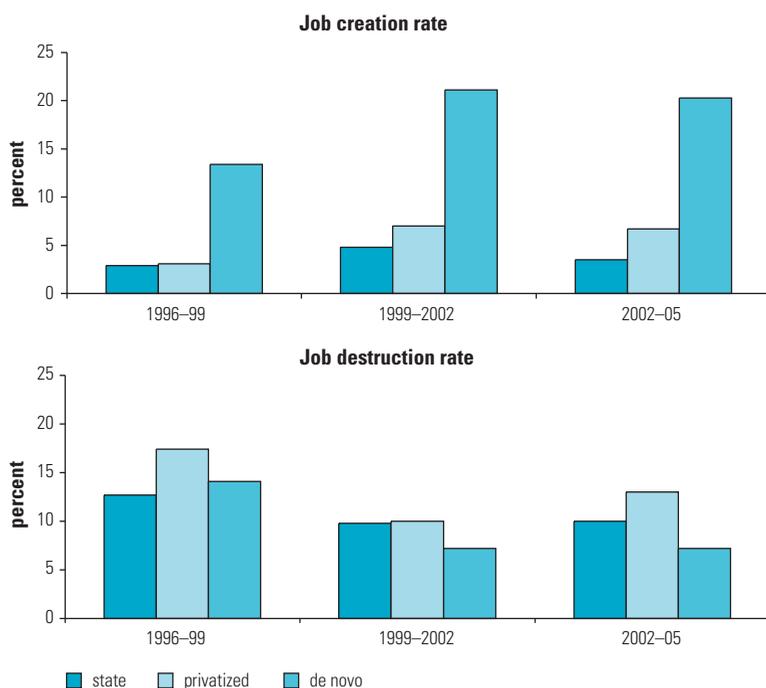
Labor market outcomes in the transition countries have generally been poor. In 2006 employment rates—the ratio of the employed to the working age population—ranged from 50-60 percent in Bulgaria, Hungary, Poland, and the Slovak Republic compared to the Lisbon agenda target of 70 percent for EU countries. Open unemployment stood at between 13 percent and 14 percent in Poland and the Slovak Republic, and more than half the unemployed had been without work for at least a year. Labor force participation rates in Southeastern Europe were 73 percent for men and 56 percent for women. The corresponding numbers in the EU15 were 78 percent for men and 65 percent for women. Low productivity subsistence agriculture employed 40 percent of the population in Moldova and 20 percent in Georgia.

These labor market outcomes reflect different stages of the transition. By sector, job growth has been more robust in services, which have expanded relative to industry since the beginning of the transition. By ownership category, de novo firms have been a strong force for job creation, whereas job destruction has occurred largely through downsizing in state-owned and privatized firms (figure 7). Indeed, rates of aggregate job growth in de novo firms are 15–20 percentage points higher than in state-owned and privatized firms. Why has net job growth been sluggish?

Employment in the EU8 and Southeastern Europe

Net job growth was weaker in Southeastern Europe than in the EU8 over 2002-2005. Job growth in de novo firms was over one-and-a-half times as strong as in the EU8, but this was more than completely offset by downsizing, which was over twice as large in state-owned and privatized firms in Southeastern Europe. This is a catching up story. The boom in the new private sector is farther advanced but slowing in the EU8 countries, because there are presumably fewer

FIGURE 7
De Novo Firms Have Been a Strong Force for Job Creation



Source: Mitra, Muravyev, and Schaffer 2008.

Note: The job creation rate is the number of jobs created during a year divided by average employment during the year. The job destruction rate is the number of jobs destroyed during a year divided by average employment during the year.

niches left for de novo firms to occupy than in Southeastern Europe due to the EU8's greater progress in the transition. And the downsizing of state-owned and privatized firms is farther advanced in the EU8 but slowing as there is less of the transition legacy to be extinguished.

Employment in Southeastern Europe and the CIS

Net job growth in the CIS during 2002–05 was however higher than in Southeastern Europe.⁹ De novo firms in both country groups contributed enormously to employment growth—and in broadly comparable amounts. This was more than completely offset by downsizing in state-owned and privatized firms, which was more than twice as large in Southeastern Europe. The weaker downsizing in the CIS only partially offset job growth in de novo firms, leading to net job growth being higher than in Southeastern Europe.

This suggests that the catching up story does not quite apply to the CIS country groups. Since the Southeastern European countries have progressed more in the transition than the CIS countries, catching up would have involved more vigorous downsizing in state-owned and privatized firms in the CIS countries because there is more of the transition legacy to extinguish. Yet this did not happen, which was likely a result of inadequate competition in the CIS countries. As noted earlier, firms in the CIS countries report that pressure from competitors, whether domestic or foreign, is less of a spur to restructuring than their counterparts in the EU8, Southeastern Europe, and developed market economies.

Convergence

The evolution of employment reflects patterns of convergence similar to those for the business environment. Employment depends on, among other things, firm ownership (state-owned, privatized, de novo) and size. The proportion of de novo firms has been rising and that of state-owned and privatized firms has been falling in all transition country groups over 1999–2005. The size distribution of firms in the transition countries, which was dominated by medium firms (50 to 99 employees) and large firms (200 employees or more), is also converging toward that in West Germany and the cohesion countries, which have many more micro firms (1–9 employees) and small firms (10–49 employees). Employment in small firms is increasing relative to employment in large firms. The process has advanced the most in the EU8, where the size distribution of firms is closest to that in West Germany and the cohesion countries. It has moved the least in the CIS countries which started with fewer smaller firms and, despite

their growth, are some distance from the developed market economies.

Skills Shortages in the New Member States of the European Union

Skills shortages have emerged particularly since 2005, as a constraint to expanding employment in the new member states of the European Union. Employers in the Czech Republic, Hungary, Latvia, Lithuania, Poland and Romania report lack of skilled workers as an important obstacle to business growth. Low employment rates and high unemployment coexist with an increase in job vacancy rates in construction and manufacturing and rising labor demand. This is due in part to the unemployed lacking the necessary job skills—there is an excess supply of unskilled labor, particularly in Bulgaria, the Czech Republic, Hungary and the Slovak Republic. Making education systems more responsive to labor market needs and encouraging lifelong learning will be part of the agenda for reducing unemployment and increasing labor force participation in these countries.

Lessons

Three lessons can be drawn from the evolution of employment in the transition countries.

- Labor market outcomes reflect firm behavior. Weak job growth in the EU8 and Southeastern Europe is the result of vigorous downsizing in state-owned and privatized firms more than offsetting strong job growth in de novo firms. Convergence in labor market outcomes comes from the slowing of both the employment boom in de novo firms and the downsizing in state-owned and privatized firms in country groups farther advanced in the transition.
- Convergence does not apply as yet to the CIS country groups. Downsizing in state-owned and privatized firms is not as strong as addressing the remaining legacy of transition might warrant. Stronger competition, which would facilitate convergence in the CIS countries, would also accelerate downsizing in state-owned and privatized firms. Severance payments, retraining programs, and social safety nets for the displaced workers can facilitate convergence by reducing its social costs.

Labor market outcomes during much of the transition reflect a balance between job growth in de novo firms and downsizing in state-owned and privatized firms. But as countries progress in the transition, these legacy-of-transition factors give way to those that

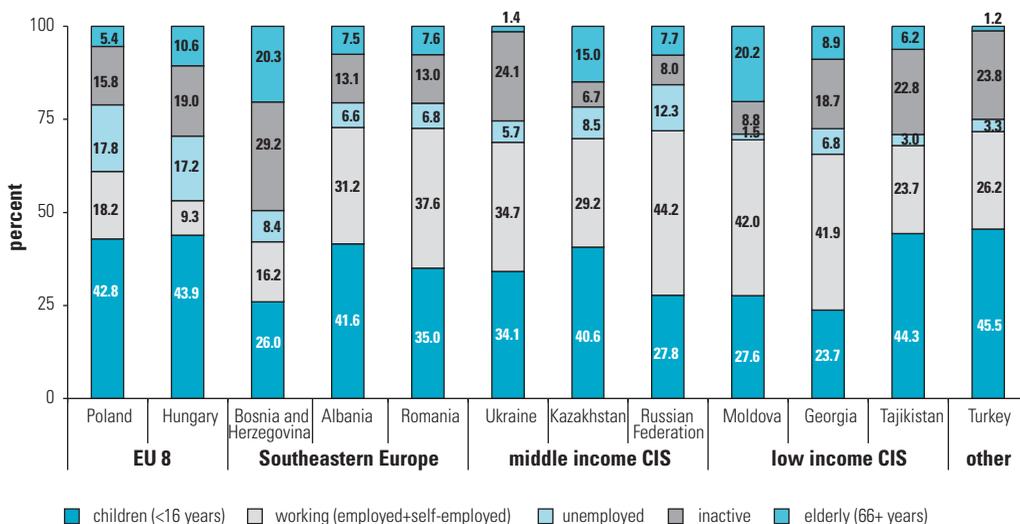
have more to do with competitiveness in a globalizing world, as is clear from recent developments in the new member states of the European Union.

Poverty Reduction

Economic growth has lifted 50 million people out of absolute poverty. While nearly one in five individuals—or 85 million—lived in poverty around 1998/99, only one in twelve individuals—or 35 million—did so around 2005/06. There are three main channels through which growth affects the poor. First, the working poor gain from rising real wages or increased productivity of their self-employment. Second, the unemployed poor benefit directly from increased employment resulting from growing demand for their labor. And third, growth can trickle down to the economically inactive poor through increased public and private transfers.

Even with broad-based increases in real wages since 1998, working adults, whether employed for wages or self-employed, and children, often the children of working parents, make up the majority of the poor (figure 8). Work, therefore, does not always protect people from poverty. This is because much employment, particularly in the region’s poorest countries, is in low productivity occupations such as subsistence agriculture. Indeed, in 2002 nearly half of the poor in Moldova, for example, were employed in agriculture, a sector where the risk of falling into poverty is the highest compared to industry and services in

FIGURE 8
The Majority of the Poor Are Working Adults and Children



Source: World Bank staff estimates using ECA Household Surveys Archive.

all countries. For this reason, productivity growth, especially in agriculture, will remain a dominant concern for policy makers.

The risk of becoming poor is substantially higher for the unemployed than for the employed. But the unemployed poor are a modest proportion—much less than a tenth—of the poor.¹⁰ And this is despite the fact that in low income CIS countries such as Armenia and the Kyrgyz Republic, where social safety nets are less generous, the proportion of the unemployed without a job for at least a year was 40 percent or more. This suggests that the unemployed retain an informal attachment to the labor market and have benefited from the bounce-back in real wages.

The inactive poor, i.e., those not in the labor force, make up an increasingly significant proportion—from between a sixth to a third—of the poor in many countries.¹¹ Seen against the background of low labor force participation compared to the EU15, this points to the emergence of an underclass dependent on public transfers.

Agriculture in the Poorest Countries

Boosting labor productivity in agriculture is particularly important for productivity growth in the low income CIS countries, where the sector accounts for 20 percent of value added and over 40 percent of employment. It is also important for poverty reduction since the poor are over-represented in agriculture and because the expansion of employment in labor-intensive agriculture in the lower income CIS countries served as a coping strategy for the poor. Land distribution from large formerly collective farms in Armenia and Georgia in the early 1990s, in the Kyrgyz Republic in the mid-1990s, in Azerbaijan in the late 1990s, and in Moldova after 1999, yielded a one-off increase in labor productivity because family farms were more efficient than agricultural enterprises. Imposing hard budget constraints on large corporate farms that are largely unreformed since the Soviet era, is important. This can be done by redirecting public spending away from subsidies and towards development of research and extension, agricultural education and market infrastructure. This would facilitate farm restructuring and enhance the competitiveness of family farms. But continuing gains in labor productivity and poverty reduction will require on-farm technology transfer to improve yields for crops and livestock. It will also require better integration of agricultural households into labor markets to provide off-farm employment or access to urban labor markets. And it will require better credit markets, reduced marketing costs, and improved rural service delivery.

Can poverty be further reduced if employment prospects do not improve? The answer is that continuing reductions in poverty and improvements in living standards are possible even without a significant increase in employment. The experience of transition countries since 1998 shows that productivity growth and rising fiscal revenue make more generous social safety nets possible, thereby helping those unable to benefit directly from growth by securing jobs. Social protection transfers to households increased in real per capita terms during 1998–2005 in line with growth in fiscal revenues. These transfers reduced poverty.

But income, though important, is not all. Satisfaction with life, though well correlated with household expenditures, also depends on factors such as an individual's assessment of health, perception of relative economic standing, work status, and trust in people. Work status is important: the Life in Transition Survey (LiTS), which was conducted in 2006 in 27 transition countries, shows that, other things being equal, the unemployed are significantly more likely to be dissatisfied with life than the employed. Indeed, the difference in satisfaction levels is somewhat higher than the difference in satisfaction levels between people with half and twice the average per capita expenditures.

Lessons

Two lessons can be drawn from the profile of the poor in the transition countries.

- Productivity growth, which is the only viable path to lasting prosperity, will remain a dominant concern of policy makers in the transition countries. It is of particular importance for poverty reduction in agriculture in the low income CIS countries.
- Poverty reduction, since it has been driven by productivity growth and the use of transfers, is possible even without any improvement in employment prospects. But broader indicators of subjective welfare show the unemployed to be significantly more dissatisfied with life than the employed. A more inclusive growth path would require addressing the constraints to expansion of employment, such as skills shortages in the new member states of the European Union.

Integration

International Trade

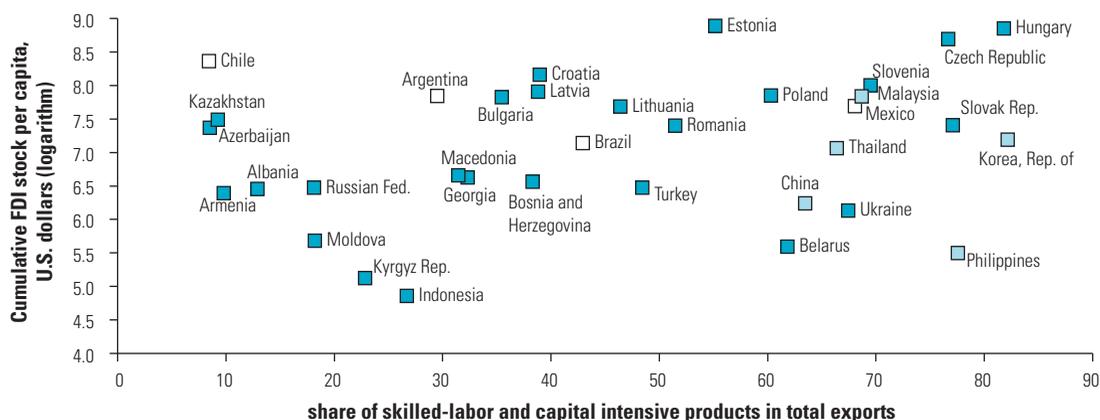
The region's international trade collapsed at the onset of the transition with the fall of the Berlin wall, the dissolution of the Soviet

Union, and the breakup of Yugoslavia. But between 1993 and 2003 it grew faster than in any other region. And by 2003 the transition countries did not systematically trade any more or any less than countries anywhere else. Put another way, this implies that remote, low income countries in the CIS are no better or worse integrated than low income countries of similar size and distances to major markets elsewhere in the world. This reintegration, in barely a decade and a half since the beginning of the transition, is worthy of note.

But the nature of trade varies greatly across transition groups. Countries that joined the European Union in 2004 are much more open to trade—exports and imports made up 60 percent of their GDP in 2006. Enabled by foreign direct investment (FDI), the Czech Republic, Estonia, Hungary, Poland, and the Slovak Republic participate almost as heavily as developing East Asia in producer-driven global commodity chains, such as those for automotives and information technology. Such chains, in which production is fragmented in vertically integrated sectors, involve two-way flows of parts and components for further processing and development across firms in various countries. Those countries also export products intensive in skilled labor and capital (figure 9).

The CIS countries, by contrast, are much less open to trade—exports and imports made up only 20 percent of their GDP in 2006—with Southeastern Europe in between at 40 percent of its GDP. Except for Belarus and Ukraine, exports from the CIS countries are intensive in natural resources and unskilled labor, reflecting exports of fuels, aluminum, and gold. The collapse of manufacturing when uncompetitive Soviet-era industry met world prices explains in part the high

FIGURE 9
Foreign Direct Investment Helps EU New Member States Take Part in Producer-Driven Global Networks



Source: UN COMTRADE and IMF International Financial Statistics Database.

Note: FDI stock per capita is for 10 years or more over the period.

share of energy and raw materials in exports from resource-rich countries (Azerbaijan, Kazakhstan, and Russian Federation) and of aluminum (Tajikistan) and gold (Kyrgyz Republic). Their network trade is modest, confined to technologically less demanding buyer-driven production chains, such as those for textiles and furniture, in which global buyers create a supply base to build production and distribution systems without direct ownership. While FDI is almost a sine qua non for participation in producer-driven networks, it is more modest in buyer-driven networks. Cross-country differences in FDI per capita are striking, 40 times higher in Estonia than in the Kyrgyz Republic.

Innovation and integration feed on each other in a virtuous circle. Productivity growth in manufacturing firms is faster when participation in network trade is higher.¹² What is needed for countries to attract foreign direct investment to participate in network trade? Not trade policy per se, since most transition countries have liberal trade regimes, but “behind the border” reforms, the key being a business environment conducive to productivity growth. Two other reforms are important for integration into network trade.

- First, improved trade facilitation and logistics in port efficiency, customs regimes, regulatory policy, and information technology infrastructure. This reform has the potential to significantly increase intraregional trade and trade with the rest of the world.
- Second, liberalized banking, telecommunications, and transport services, typically combining competition with effective regulatory supervision. This improves the efficiency of the services sectors themselves. And manufacturing industries that rely more on inputs from liberalized service sectors enjoy higher productivity than those that do not—and the resulting increase in competitiveness promotes deeper integration with the global economy.

The prospect of European Union accession provided the new member states with an external anchor that supported many of the reforms necessary for the creation of a business environment conducive to productivity growth and international integration. The extent to which countries without similar prospects can look to outside mechanisms to enhance the credibility of a reforming government and lock in the necessary institutions is an open question.

International Knowledge Flows

In addition to trade and foreign direct investment, knowledge flows through citations of patents, international co-invention and multina-

tional sponsorship of local inventions offer another perspective on the links between openness and innovation. Analysis of patent data for 1993 through 2006 from seven countries—Bulgaria, the Czech Republic, Hungary, Poland, the Russian Federation, Slovenia and Ukraine—by the U.S. Patent Office supports three propositions:

- First, indigenous patents from the transition countries tend to cite older technologies, less fundamental prior inventions, and patents that are less frequently cited. This suggests that inventors in the seven countries are insufficiently connected to the technological frontier and that the research and development (R&D) community is relatively isolated from international technological trends.
- Second, international R&D collaboration in various forms has allowed inventors in the region to sidestep these handicaps to some extent. Co-invented patents (those where at least one inventor is located in a transition country and one inventor is located outside, usually in a more advanced country such as Germany, the United States, other major European economies, and the Republic of Korea) have come to account for over a half of total patents granted in recent years. Most tellingly, the citation patterns become less distinctive when patents generated through such collaboration are taken into account.
- Third, foreign firms make a significant contribution to inventive activity in the region. Patents in the transition countries created through multinational sponsorship are more connected to global R&D trends and represent inventions of higher quality.

These findings suggest that countries looking increasingly to innovation-based growth should try to attract foreign R&D investment. Inasmuch as multinationals have a choice among countries when it comes to locating R&D activity, this requires creation of a strong business environment, but also a strong presence in science and information and communications technology (ICT) infrastructure.

International Migration

Migration and Remittances: The Facts

The transition countries and Turkey have seen large movements of people since the fall of the Berlin Wall and the disintegration of the Soviet Union. If movements between industrial countries are excluded, the region accounts for over one-third of total world emigration and immigration. The flows at the beginning of the transition reflected the

return of populations to ethnic or cultural homelands, the creation of new borders and political conflict, and the unwinding of Soviet restrictions on movement. The breakup of the Soviet Union led to the Russian Federation's gaining 3.7 million persons through migration and becoming a net recipient of migration from all other countries of the CIS as well as the Baltic states. At the same time, 15 percent or more of the populations of Albania, Armenia, Georgia, Kazakhstan, and Tajikistan migrated permanently. But later flows—driven mainly by income differences—have been large as well. Looking at migrant stocks, several countries of the region are among the top ten sending and receiving countries worldwide. The Russian Federation is home to the second largest number of migrants after the United States, Ukraine is fourth after Germany, and Kazakhstan and Poland are ninth and tenth.

Patterns of migration in the region are broadly biaxial. Much of the emigration in the western part of the region—more than 40 percent—is directed to the EU15, while much emigration from the CIS countries—80 percent—remains within the CIS. Germany is the most important destination outside Eastern Europe, the CIS, and Turkey for migrants from the region, while Israel was an important destination in the first half of the 1990s. The Russian Federation and Kazakhstan are the main intra-CIS destinations. The United Kingdom is becoming a destination for EU8 migrants, who until recently were barred from legal access to many other EU15 labor markets.

Relative to GDP, remittances are significant in many countries of the region. Migrants' funds represent over 35 percent of GDP in Moldova and Tajikistan and over 15 percent in Armenia, Bosnia, and Serbia and Montenegro. Remittance flows have followed a biaxial pattern reflecting migration flows—three-quarters have originated from the European Union and 10 percent from the resource-rich CIS countries. However, remittances recorded in the balance of payments undercount transfers between migrants and their families because between one-third and two-thirds of migrants use informal channels—or methods outside of the formal financial system such as bank transfers—to transmit remittances at some point. On average, remittances have contributed more than 20 percent of the disposable income of the poorest households and have served as a cushion against the political and economic turbulence brought about by the transition.

Determinants of Migration

With the initial large-scale displacements associated with the beginning of the transition out of the way, economic considerations—such as expected income differences, the expected probability of finding

employment abroad and expected quality of life at home—play an increasingly important role in decisions to migrate. But these are also tempered by the influence of cultural and social factors. The poor nature of data on migration does not allow this to be conclusively established for the transition countries. But broad support for this view is provided by the history of migration from the Southern European countries and Ireland.

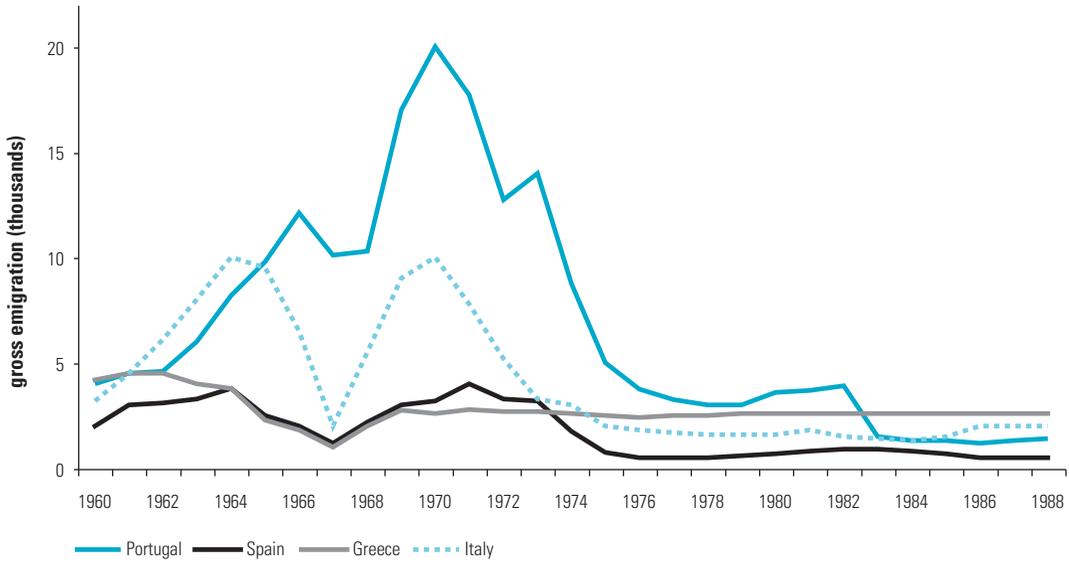
The history of migration from the Southern European countries and Ireland—which realized a shift from being net emigration to net immigration countries during the period of the 1960s through the 1980s—to the wealthier European Community members is useful for understanding and predicting patterns of migration for the transition countries. Their experience suggests the importance of expected income differentials between sending and receiving countries and expected improvements in domestic policy in sending countries in motivating migration. In Southern Europe and Ireland, for example, emigration rates initially accelerated as these countries became more integrated into the regional economy, as has occurred for many of the transition countries. However, this increase was also associated with a shift from long-term to shorter-term migration, suggesting greater interest in return migration, which, in fact, then materialized.

It is interesting to note that migration in Southern Europe evolved in a “hump” pattern, in which emigration rates accelerated as growth took off and more households could finance migration and then fell as further growth made working at home more attractive (figure 10). For example, the surge in Italian emigration to the United States at the beginning of the twentieth century was due not to an increase in poverty but to an increase in income and employment growth at the beginning of the Italian industrialization.

The surge of Spanish emigration to other European countries in the period between 1960 and 1974 was the result of a growth rate higher than in the other European countries (figure 10). The peak of Portuguese emigration in the 1970s also took place during a growth phase, and Greece’s emigration rates rose during the economic boom of the 1960s.

The prospect of EU membership may also have influenced the desire to migrate. The slowing migration from Southern Europe in the second half of the 1970s was the result of lower incentives to migrate owing in part to the large investments made by the EU in these countries before their accession. Such investments led to expectations of a higher quality of life in potentially sending countries. Membership of the EU also played a role in Italy’s turnaround from a net emigration to a net immigration country.

FIGURE 10
Migration in Southern Europe Evolved in a “Hump” Pattern



Source: World Bank (2006b).

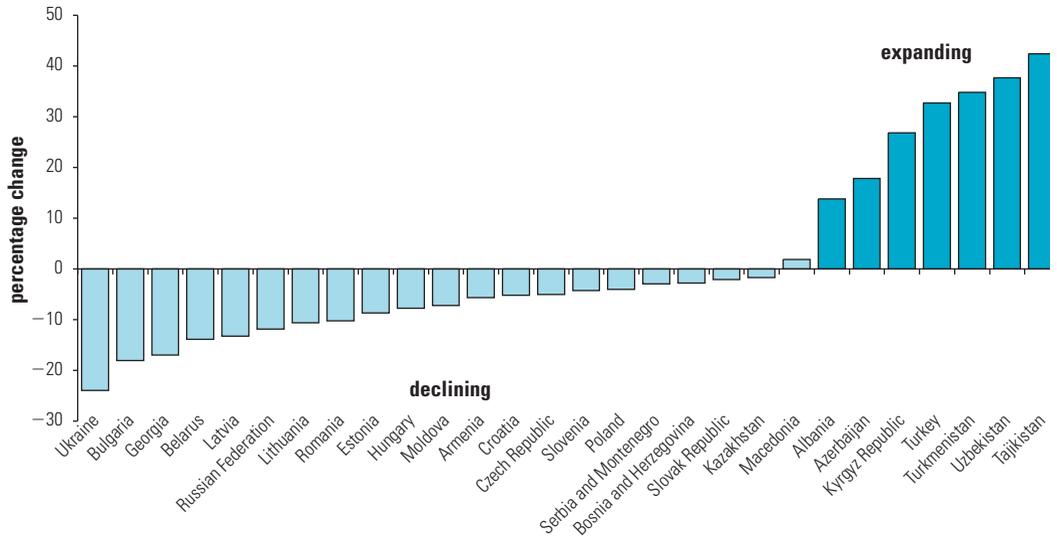
The history of Southern Europe and Ireland suggests that improved policies and institutions, together with expectations of future growth in sending countries, create incentives for migration and return migration or circular migration—the process in which migrants return home for short periods before migrating again.

The Demographic Transition

As if twin political and economic transitions have not been challenging enough, many countries in Eastern Europe and the former Soviet Union now face a third transition. Demographic projections suggest that by 2025 the average Slovene will be 47 years old, giving the country one of the oldest populations in the world. One in five Bulgarians will be over 65. Ukraine’s population will shrink by a fifth, and the Russian Federation’s by more than a tenth (figure 11). Aging will lead to the share of the working age population (15–64 years) in total population declining rapidly after 2015—less than a decade from now—in the EU8, Southeastern Europe, and middle income CIS countries (figure 11). This is similar to the change projected for the EU15, deeper than in the United States, shallower than in Japan¹³. What challenges is this demographic transition likely to pose?

FIGURE 11
Populations in Many Transition Countries Are Shrinking

Percentage Change in Population, 2000–25



Source: UN Population Prospects.

A decline in the share of the working age population could, other things being equal, slow growth.¹⁴ This can be offset in broadly two ways, by accelerating innovation and promoting inclusion.

- First, make the employed more productive. There is no unambiguous evidence that aging cuts individual productivity, which depends on job skill requirements and individual capacities. What is important is reforming education systems to provide those in the labor force with the skills required by employers and offering life-long training and learning to make more effective use of an aging labor force. While the employed are more skilled than the unemployed, only 5 percent of adults in the new member states of the European Union, for example, participate in lifelong learning. And of critical importance in aging societies is encouraging broad-based productivity growth by creating a business environment that is conducive to the deep restructuring associated with innovation and knowledge absorption.
- Second, increase the share of the labor force in the working age population. This requires boosting labor force participation, which is particularly low in the EU8 and Southeastern European countries compared to the EU15 countries, across the entire age spectrum and for both men and women. Measures that can bring this about are pension reforms that raise and equalize the retirement age for

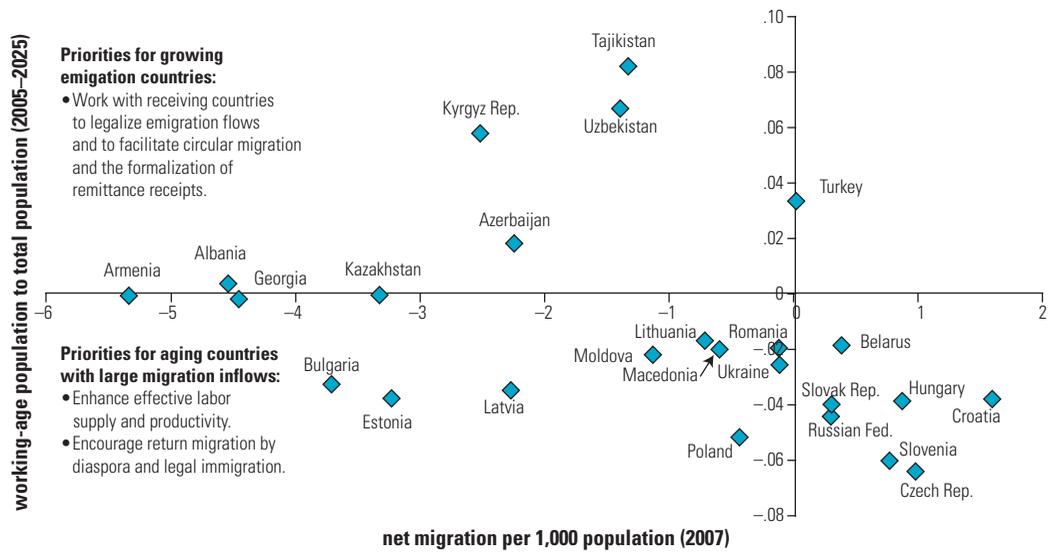
men and women and the reduction of tax wedges on labor—social security contributions plus personal income tax as a proportion of gross labor costs—where fiscal considerations allow this to be done. Upgrading the skills of those of the working age population who have withdrawn from the labor force is no less important than those in it. Excluding a large part of the working age population from employment is an expensive luxury in rapidly aging societies.

Public savings should be increased to offset any decline in household saving because of aging. How? Through pension reform that raises retirement ages for men and women and indexes pensions to price inflation rather than to wage growth. This would also raise labor force participation among older adults. By containing increases in spending on long-term care that aging would otherwise bring about through the introduction of a category of care that is part medical and part social, located between home care and primary care. And—the longest term strategy of all—by keeping elderly populations healthier. While the pace of reform has been impressive in many transition economies, aging is occurring in a weaker institutional framework than in Western Europe and Japan as they undergo a similar demographic transition. It is likely therefore to be more successful in countries where convergence toward developed market economy institutions is the most advanced.

Migration

Migration is not a substitute for policies to offset the consequences of aging. But it can be part of the solution. Countries can be classified by whether the share of the working age population is projected to rise or fall till 2025 and whether they were net senders or recipients of migrants in 2007 (figure 12). Belarus, Croatia, the Czech Republic, Hungary, the Russian Federation, the Slovak Republic, and Slovenia (in the southeast quadrant) are examples of aging societies that are net receivers of migrants. By contrast, Albania, Azerbaijan, and all countries in Central Asia except Kazakhstan are projected to see a rising share of the working age population in total populations and are net senders of migrants (in the northwest quadrant). As noted, migration is increasingly driven by broadly economic considerations, such as expected income differences between the sending and recipient countries, the expected probability of finding employment abroad, and the expected quality of life at home—all tempered by social and cultural factors. As incomes per capita rise rapidly in the wealthier transition countries, it is likely that net senders among them, such as Poland and

FIGURE 12
Some Net Senders of Migrants Will Become Net Receivers



Source: UN Population Prospects Database and national statistical authorities.

the Baltic states (in the southwest quadrant), that currently export labor to the EU15, where growth is typically slower, will become net receiving countries. This will be accelerated by labor market shortages that have emerged in some EU8 countries. Such receiving countries will wish to combine immigration from poorer sending countries with reverse migration of their own citizens from the EU15 countries. The poorer aging countries, such as Macedonia and Moldova (in the southwest quadrant), will continue to be net sending countries, though possibly at a slower rate for the foreseeable future. These developments will also affect EU15 countries that rely on migrants from Poland and the Baltic states to fill labor market shortages. Since the new member states of the EU are aging faster than the EU15, the latter will need to look farther afield to countries where populations are young and growing, such as Turkey, Central Asia, and beyond.

Countries should consider temporary circular migration with five features. It should be coordinated between sending and receiving countries. It should channel migrant labor to sectors or subsectors with little native labor. It should offer employers in receiving countries the means to hire legally the workers they need. It should ensure that employment under the new regime is temporary by designing incentives to encourage migrants to return. And it should respect the rights of migrants while abroad. Migration involves complex political, economic, and social factors, and it is for this reason that policy exper-

iments might be needed to improve the frameworks that currently regulate it.

* * *

In summary, this book shows that the legacy of transition is giving way to convergence in institutions that shape firm behavior and outcomes toward those in developed market economies.

- Productivity growth is less dependent on redressing the historic misallocation of resources in the command economy and, as in industrial and developing economies, more reliant on continuing improvements within firms. This can be sustained if key aspects of the business environment converge toward those in developed market economies. This is happening in the EU8 and some of the Southeastern European countries; the CIS countries are followers, but are some way behind.
- Employment growth has reflected the interplay between (a) job growth in new private firms that were able to occupy market niches nonexistent under central planning and (b) downsizing in state-owned and privatized firms. Both factors reflect the legacy of transition and are converging toward patterns characteristic of market economies but less reliably in the CIS. However, the evolution of employment may now be driven less by such factors and more by the availability within the labor force of skills demanded by employers, at least in the countries most advanced in the transition: the new member states of the European Union.
- Growth can reduce poverty among (a) the working poor, by raising their wages or increasing the productivity of their self-employment; (b) the unemployed poor, by raising the demand for their labor; and (c) the inactive poor, by making possible more generous public transfers. Continued productivity growth within a reforming business environment and rising public transfers fed by rising fiscal revenue—the pattern set since 1998—can reduce income poverty even if employment prospects and labor force participation do not improve. But those excluded from employment report being more dissatisfied with their lives, so building inclusive societies by addressing the constraints to job creation, such as unavailability of the requisite skills among the unemployed in the new member states of the European Union, should be a priority.
- Domestic and external factors worked in harmony as the EU8 and parts of Southeastern Europe used the anchor of prospective EU accession to lock in the reforms of policies and institutions neces-

sary for rapid productivity growth and deeper integration into the world economy. However, the extent to which countries without such prospects can use outside mechanisms to enhance the credibility of a reforming government and lock in the necessary institutions remains to be seen.

- Finally, the challenge posed to economic growth by aging populations in a large swath of transition countries is serious and systemic. Offsetting it will require renewed emphasis on both innovation and inclusion, supplemented by international labor migration—itself a facet of integration. It will be more successful in countries where convergence in institutions is the most advanced. It cannot be taken for granted.

Endnotes

1. Eastern Europe includes Albania, Bosnia, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Montenegro, Poland, Romania, Serbia, the Slovak Republic, and Slovenia.

The Commonwealth of Independent States (CIS) includes Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

2. The absolute poverty line is \$2.15 a day in 2000 purchasing power parities.
3. This statement is based on the proposition that growth in GDP per capita can be decomposed into (1) growth in GDP per employed person, or aggregate labor productivity, (2) growth in employment as a share of the working age population, or the employment rate, and (3) growth of the working age population in the total population. The relationship used is

$$\frac{GDP}{POP} = \left(\frac{GDP}{EMP} \right) \times \left(\frac{EMP}{WorkingAgePOP} \right) \times \left(\frac{WorkingAgePOP}{POP} \right),$$

where POP is the total population, EMP is the employed population, and Working Age POP is the working age population

4. The book distils the themes analyzed in recent flagship studies published by the Europe and Central Asia Region of the World Bank: World Bank (2005a), World Bank (2005b), World Bank (2005c), World Bank (2006b), World Bank (2007a), and World Bank (2008a).
5. Countries are classified into four groups: the EU8 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, and Slovenia), Southeastern Europe (Albania, Bosnia, Bulgaria, Croatia, Macedonia, Romania, and Serbia and Montenegro), the middle income CIS (Belarus, Kazakhstan, the Russian Federation, and Ukraine), and the low-income CIS (Armenia, Azerbaijan, Georgia, Kyrgyzstan, Moldova, Tajikistan, and Uzbekistan) See box 1.1.
6. A contribution to productivity growth in this accounting also comes from reallocation that increases the share of employment in firms where

productivity is growing faster and reduces it in firms where productivity growth is slower (the cross effect). See Chapter 2.

7. World Bank (2008a).
8. World Bank (2008a).
9. The middle income and low income CIS country groups are combined for brevity. This does not affect the argument presented in the text in substance.
10. Labor market profiles of the poor are defined by employment status of the household head. See table 5.1.
11. Labor market profiles of the poor are defined by employment status of the household head. See table 5.1
12. World Bank (2008a).
13. The EU15 comprises Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Sweden, Spain, and the United Kingdom.
14. This is because growth in the share of the working age population in the total population contributes to growth in GDP per capita, provided aggregate labor productivity and the employment rate do not change. See note 3.

The Elements of Economic Growth

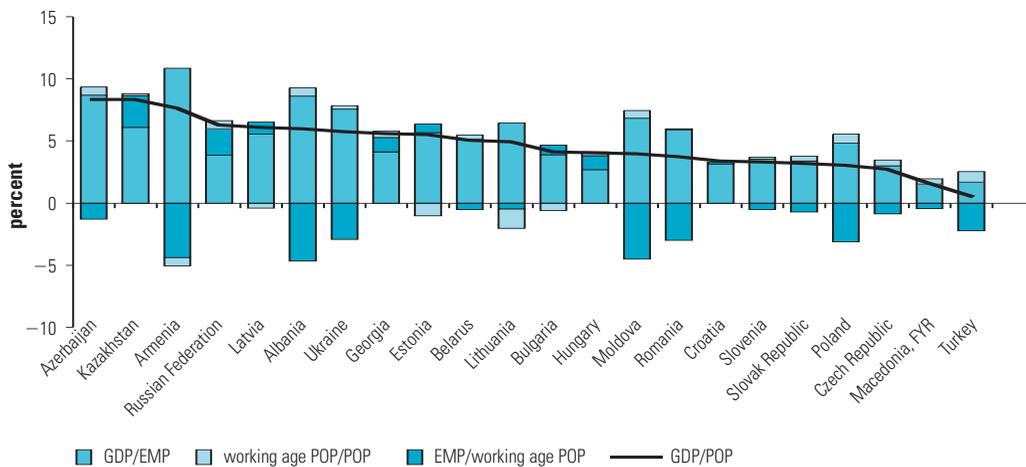
The improvements in living standards in the transition countries between 1998 and 2006 need to be placed in the context of economic growth and employment generation (figure 1.1). The Baltic states (Estonia, Latvia, and Lithuania) and many Commonwealth of Independent States (CIS) countries have enjoyed growth in GDP per capita averaging 5 percent or more a year, reflecting their recovery from a deep transitional recession, which had taken GDP per capita in the CIS countries in 1998 to an estimated 55 percent of its 1990 level. Growth in the Czech Republic, Poland, the Slovak Republic, and Slovenia and in Southeastern European countries such as Bulgaria, Croatia, and Romania, averaged less than 5 percent. Eastern Europe had experienced a shorter and shallower transitional recession, which had seen GDP per capita in 1992 fall to an estimated 85 percent of its 1990 level.

The recovery in GDP per capita since 1998 owes much more to growth in aggregate labor productivity than to increases in the employment rate, with demographic change generally contributing little over this short period.^{1, 2}

Aggregate labor productivity fell following the onset of transition in a number of countries of the former Soviet Union, reflecting an inability to reduce employment in line with the sharp collapse of output. But it recovered strongly thereafter because output could be

FIGURE 1.1

Average Annual Growth Rate in GDP per Capita and Its Components, 1998–2006



Source: ILO LABORSTA database and World Bank World Development Indicators Database.

Note: Growth in GDP per capita during 1998–2006 is decomposed into (1) growth in GDP per employed person, or aggregate labor productivity, (2) growth in employment as a share of the working age population, or the employment rate, and (3) growth in the share of the working age population in the total population. The relationship used is

$$\frac{GDP}{POP} = \left(\frac{GDP}{EMP} \right) \times \left(\frac{EMP}{WorkingAgePOP} \right) \times \left(\frac{WorkingAgePOP}{POP} \right),$$

where POP is the total population, EMP is the employed population, and Working Age POP is the working age population. All data are for 2006, except for Armenia, Georgia, Kazakhstan, and the Russian Federation, which are from 2005.

increased without a commensurate rise in employment in such countries as Armenia, Azerbaijan, Kazakhstan, Moldova, Ukraine, and the Baltic states, and also in Albania and Romania. The analysis of productivity growth and its correlates occupies Chapters 2 and 3.

The employment rate, which fell everywhere in the early years of transition, reflecting declining labor force participation and unemployment, rose considerably in the Russian Federation, where its contribution to growth was nearly as large as that of aggregate labor productivity, and in Kazakhstan, Estonia, and Latvia. The employment rate rose after 1998 in all the European Union countries except the Czech Republic, Poland, Romania, and the Slovak Republic (figure 1.2). Indeed, except in the Baltic states, employment rates in Eastern Europe tend to be lower than in the CIS and lower than the Lisbon target of 70 percent in most of the new member states of the European Union. The determinants of employment are explored in Chapter 4. The connection between poverty, productivity, and labor market status is developed in Chapter 5

BOX 1.1

Country Groups

The countries of Eastern Europe and the former Soviet Union are classified in four groups in this book.

EU8 countries: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, and Slovenia.

Southeastern European countries: Albania, Bosnia, Bulgaria, Croatia, Macedonia, Romania, and Serbia and Montenegro.^a

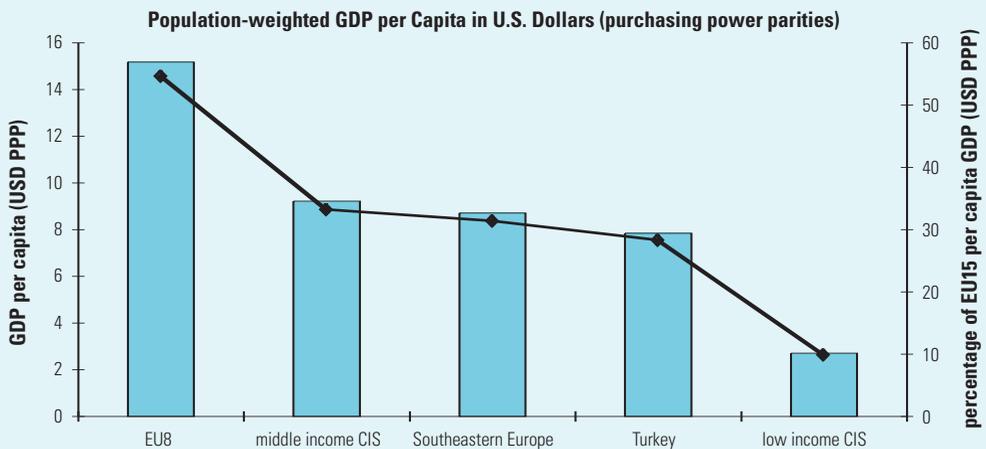
Middle income CIS countries: Belarus, Kazakhstan, the Russian Federation, and Ukraine.

Low income CIS countries: Armenia, Azerbaijan, Georgia, Kyrgyzstan, Moldova, Tajikistan, and Uzbekistan.

The developed market economies of the European Union prior to its eastern enlargement in 2004, or the EU15, are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Within the EU15, the cohesion countries are Greece, Ireland, Portugal, and Spain.

GDP per capita in the transition country groups in 2006 and as a proportion of GDP per capita in the EU15 are shown below. As a proportion of GDP per capita in the EU15, they range from 10 percent for the low income CIS to 55 percent for the EU8.

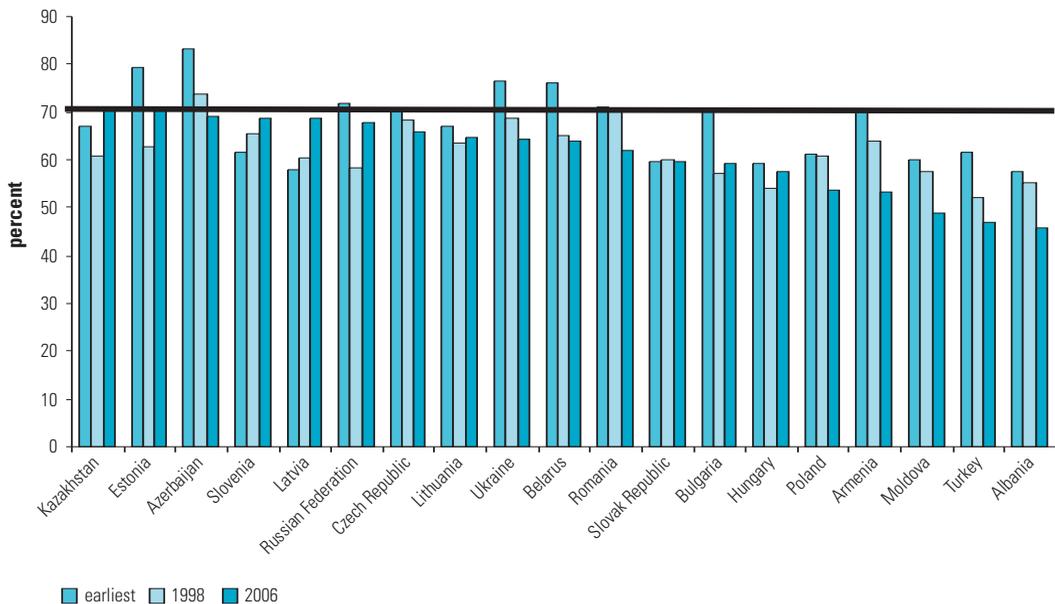


Source: World Bank World Development Indicators Database.

Note: Regional aggregates are weighted by population.

a. Serbia and Montenegro are not shown separately since the latest year for the analysis in this book is 2006, when they were a single country.

FIGURE 1.2

Employment Rates: Early Transition, 1998 and 2006

Source: ILO LABORSTA Database.

Note: The earliest data are for 1990 for Azerbaijan, Belarus, Bulgaria, Estonia, and Turkey; for 1992 for Hungary and the Russian Federation; for 1993 for Armenia, Czech Republic, Kazakhstan, Poland, and Slovenia; for 1994 for Albania, Lithuania, Romania, and Slovak Republic; for 1995 for Moldova and Ukraine; and for 1996 for Latvia. The latest data for Kazakhstan are for 2004.

The ratio of the working age population to total population rose in Albania, Azerbaijan, and Turkey, which saw increases in the working age population, and in Moldova, where the total population declined. The ratio fell in Armenia, where there was a large increase in the total population, and in Bulgaria, Estonia, and Lithuania, because of aging populations. The evolution of the share of the working age population due to aging and its likely consequences are examined in Chapter 8.

The region's economic recovery has been accompanied by its reintegration into the global economy. Chapter 6 examines development in trade in goods and services, while Chapter 7 is devoted to international migration.

Endnotes

1. Similar results hold if total factor productivity is used instead. Thus, World Bank (2008a) also finds that total factor productivity growth, rather than growth of labor or capital, accounted for most of the growth during this period.

2. To help keep these gains in measured productivity in perspective, note that the CIS, recovering from a deep transition recession after 1998, witnessed a rapid increase in capital stock utilization during this period. Thus, while World Bank (2008a) ascribes 5.8 percent of the annual growth rate of 6.5 percent in the Russian Federation during 1999-2005 to growth in total factor productivity, an adjustment for capacity use, which has the effect of the used capital stock growing faster than available capital stock, lowers the growth in total factor productivity to 4.2 percent.

PART I

INNOVATION

Labor Productivity

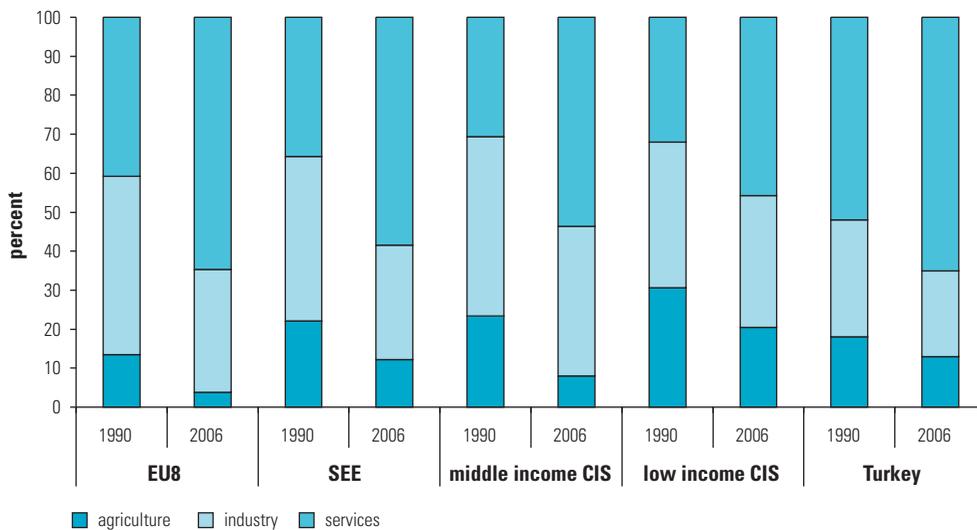
Accompanying the transition from command to market economies were substantial changes in the sectoral composition of value added—with a broad pattern of deindustrialization, declining agriculture, and expanding services, which had been repressed under central planning (figure 2.1). Deindustrialization moved labor into services in the EU8 and middle income CIS countries but into agriculture and services in the low income CIS countries.

The shares of employment in manufacturing in the EU10 and middle income CIS countries in 2004 continued to exceed those in market economies at similar per capita incomes (figure 2.2).¹ The shares of employment in agriculture in the EU10 and middle income CIS countries fell short of market economy benchmarks, being more akin to those in developed economies. The shares of employment in services in those subgroups increased by 8–10 percentage points, approximating market economy benchmarks. In the low income CIS countries, by contrast, the share of employment in agriculture increased by 15 percentage points and somewhat exceeded market economy benchmarks in 2004, while the share of manufacturing employment fell well short of them. Many of these changes had occurred by 1998, although there was some decline in the share of

This chapter draws on World Bank (2008a and 2005b).

FIGURE 2.1

Sectoral Shares of Total Value Added



Source: World Bank staff estimates and World Development Indicators Database

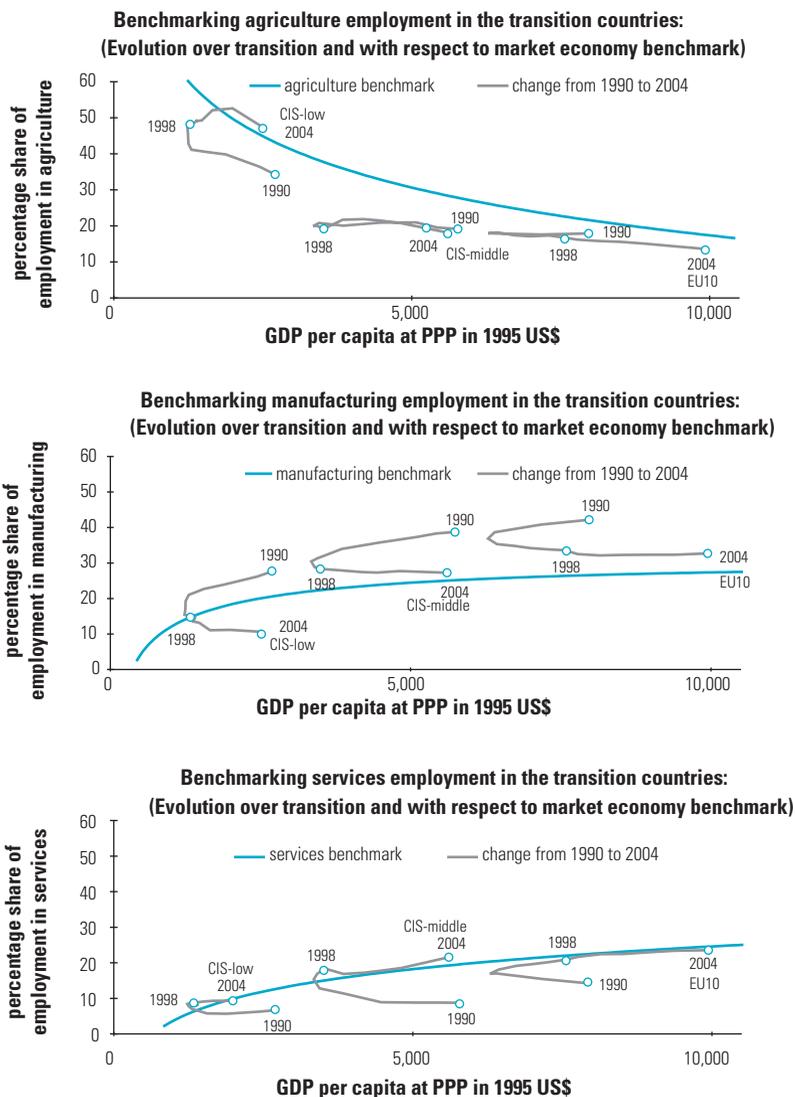
Note: First period data are from 1990, with the following exceptions: Kazakhstan (1992) and Bosnia and Herzegovina (1994). Second period data are from 2006, with the following exceptions: Albania (2005), Bosnia and Herzegovina (2005), Russian Federation (2005), and Slovenia (2005).

agricultural employment in the low income CIS countries, an increase in services in the middle income CIS countries, and some further shrinkage in agricultural employment and expansion of employment in services in the EU10 countries. The expansion of services since the beginning of the transition was productivity enhancing because productivity in services was higher than in agriculture and industry in the EU10 (see figure 2.11). But the expansion of employment in agriculture, particularly in the low income CIS countries, and in services in both middle and low income CIS countries over the entire period, was productivity reducing, because productivity in agriculture and services fell short of that in industry in those country groups.

Manufacturing

Much of the change in aggregate labor productivity in manufacturing occurred within industries, not from changes in employment across them. Supporting this contention are an analysis of growth in aggregate labor productivity in manufacturing across 9 broad ISIC sectors in the EU8 countries covering 1995 to 2004 (World Bank 2008a) and an earlier analysis of 14 manufacturing industries in the Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic,

FIGURE 2.2
Benchmarking Sectoral Employment in Eastern Europe and the CIS—Evolution over the Transition and Compared with Market Economy Benchmarks



Source: World Bank staff estimates; data from World Bank 2008a.

Note: Manufacturing sector is broadly defined as “industry,” including construction, electricity, gas, and water.

and Slovenia covering 1993 to 2002 (World Bank 2005b). Both studies found that the largest contribution was on account of improvements within each industry, not by reallocating labor from less productive to more productive industries. Industries that contributed most to aggregate labor productivity growth in manufacturing were also shrinking in size, while those with below-average productivity growth gained—in relative terms—in employment shares.

The limited contribution of shifts in employment from less to more productive industries when countries were witnessing massive changes in patterns of demand, trade, and factor use supports the view that some low productivity industries may have been sheltered from competitive pressure, implying that they would have to go through restructuring and downsizing in the future. The finding that industries with above-average productivity growth have shed more labor indicates that productivity has been driven by “defensive restructuring” rather than “strategic restructuring,” where factors would have been reallocated to their most productive uses (Grosfeld and Roland 1995).

The evolution of labor productivity in firms, where much of the core action of restructuring took place, can be analyzed by decomposing the change in labor productivity during the 1990s and early 2000s into five parts:²

- *Within-firm effect*—within-firm productivity growth weighted by the firm’s initial share in employment.
- *Entry effect*—the sum of the differences between each entering firm’s productivity and initial productivity in the industry, weighted by the firm’s share in employment.
- *Exit effect*—the sum of the differences between each exiting firm’s productivity and initial productivity in the industry, weighted by its share in employment.
- *Between-firm effect*—the gain in productivity from an increasing share of employment in high-productivity firms or a shrinking share of employment in low-productivity firms, weighted by the initial shares in employment.
- *Cross effect*—gains in productivity from the expansion of employment shares in high productivity growth firms and the reduction of employment shares in low productivity growth firms. It is positive if firms with growing productivity also increase their shares in employment, and negative if they lose their shares in employment.

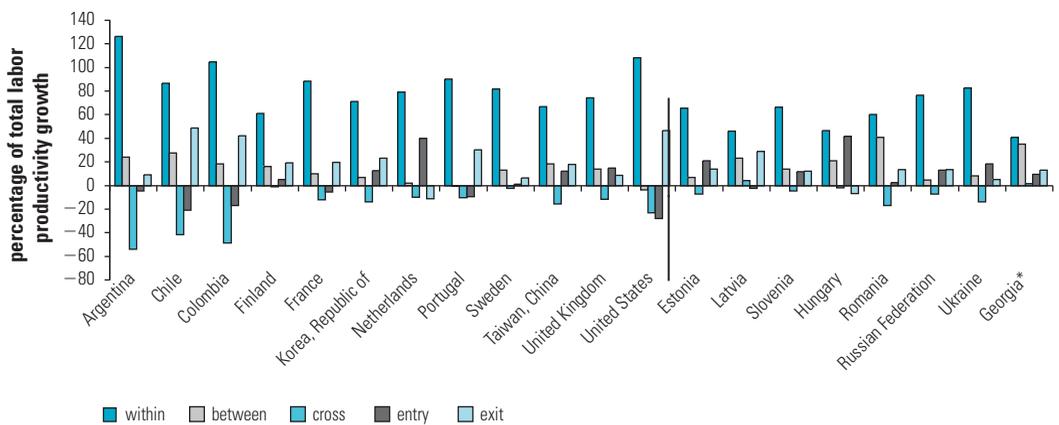
The result of implementing this decomposition in selected developed, transition, and nontransition developing economies is shown in figure 2.3.

Within-Firm Effect

Improvements in existing firms (the within-firm effect) dominated productivity growth in transition, developing, and industrial coun-

FIGURE 2.3

Sources of Productivity Growth in Developed, Transition, and Developing Economies



Source: Bartelsman, Haltiwanger, and Scarpetta 2004 for comparator countries. Brown and Earle 2007 for Hungary, Romania, Russian Federation, Ukraine, and Georgia. Bartelsman and Scarpetta 2007 for Estonia, Latvia, and Slovenia.

Note: Data show the sum of the contributions from new firms and exiting firms to total labor productivity in manufacturing. Data cover different periods. Data for Georgia are for 2001–04, rather than a five-year window. Because a shorter period tends to underestimate the contribution of new firms to total productivity growth, the data are not strictly comparable.

tries alike (figure 2.3).³ Chapter 3 examines the correlates associated with innovative activity in firms in the transition countries and compares them with the developed market economies of Western Europe.

Entry and Exit Effects

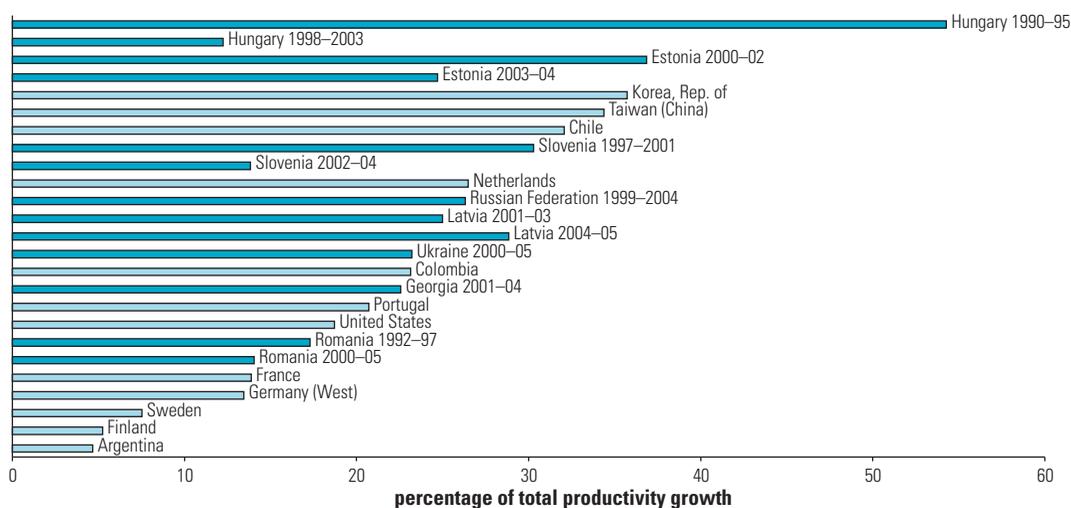
Firm entry and exit have been important in transition economies. Firm turnover (the sum of firm entry and exit as a proportion of the total number of firms) was substantially larger in early reforming transition economies than elsewhere. In Hungary and Romania around 30 percent of firms entered or exited the market annually in the early years of transition, falling to 10–15 percent by 2004, close to the average of 10 percent in developed countries. In such late reformers as the Russian Federation and Ukraine, however, firm turnover was mostly under 10 percent throughout the period, suggesting higher barriers to entry and exit. Firm entry generally outpaced firm exit in transition economies, particularly in the early years, in contrast to more balanced entry and exit in other countries.

The imbalance, particular to transition countries, was not sustained in the longer run, as entry and exit moved broadly into balance in Estonia, Hungary, Romania, the Russian Federation, Slovenia, and Ukraine. This is because new firms at the beginning of the transition could adopt more efficient technologies and fill market niches that

were nonexistent under central planning. While within-firm productivity growth was dominant, entry and exit—or net entry—contributed relatively more to productivity growth in the transition countries, particularly in the early years of the transition in Estonia, Hungary, Latvia, Romania, and Slovenia and during the recovery from the 1998 crisis in the Russian Federation and Ukraine. The pattern is different in developed countries, where entry contributes less to productivity growth and in the United States reduces it. Firm exit generally contributed to productivity growth in developed, transition, and developing countries by raising the average for surviving firms. Net entry spanned a range from 15 percent to more than 50 percent of productivity growth in manufacturing in transition countries during the first decade in Estonia, Latvia, Hungary, Romania, and Slovenia and during the post-1998 recovery in the Russian Federation and Ukraine (figure 2.4). This was higher than in developed and other developing countries, where they accounted for 5–35 percent of productivity growth.

New private entrants were less productive in the year of entry than incumbents in Hungary and Romania but not in the Russian Federation and Ukraine (figure 2.5). (Incumbents include private incumbents as well as entrants with some state ownership.) In all four

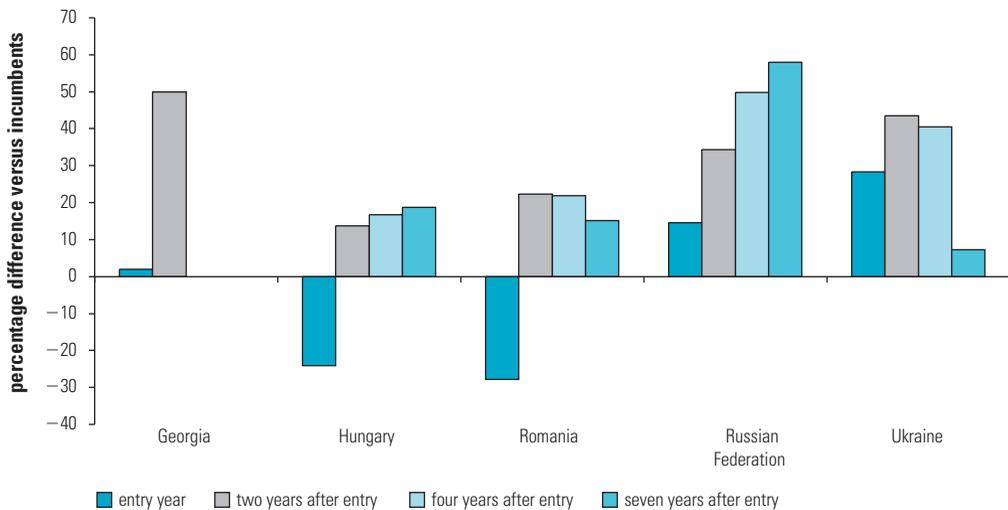
FIGURE 2.4
Contributions of Firm Entry and Exit to Productivity Growth



Source: Bartelsman, Haltiwanger, and Scarpetta 2004 for comparator countries. Brown and Earle 2007 for Hungary, Romania, Russian Federation, Ukraine, and Georgia. Bartelsman and Scarpetta 2007 for Estonia, Latvia, and Slovenia.

Note: Data show the sum of the contributions from new firms and exiting firms to total labor productivity in manufacturing. Data cover different periods. The contributions are calculated on the basis of five-year rolling windows for all but Georgia (2001–04) and Indonesia. Because a shorter period tends to underestimate the contribution of new firms to total productivity growth, the results for Georgia and Indonesia are not strictly comparable. The bars for Russian Federation and Ukraine for the early years of transition are not shown because the prolonged decline in output implies that measured labor productivity was negative during those years.

FIGURE 2.5
New Firm Labor Productivity



Source: Brown and Earle 2007.

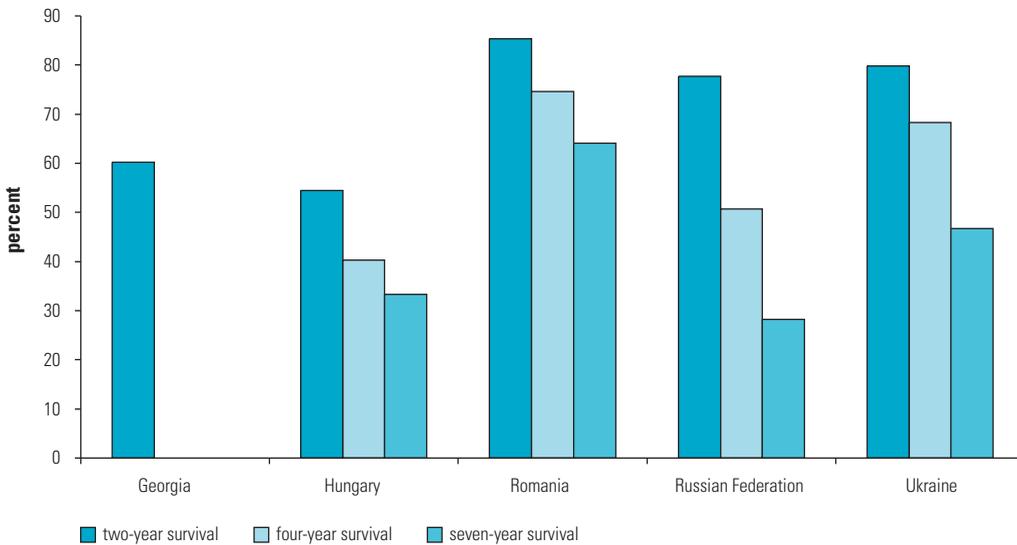
Note: Entrants with state ownership are classified as incumbents rather than entrants. These data are unweighted averages over 2001–04 for Georgia, 1991–2003 for Hungary, 1993–2005 for Romania, 1993–2004 for Russian Federation, and 1994–2005 for Ukraine, controlling for NACE two-digit sector-year effects.

countries, however, the productivity of entrants surpassed that of incumbents within two years of entry, indicating rapid learning in the new private sector. Indeed, productivity growth was higher among new private firms than old firms. The productivity advantage thus gained was maintained in all countries. It increased steadily for at least seven years in Hungary and the Russian Federation but was reduced after four years in Romania and only two years in Ukraine. The lower productivity of entrants relative to incumbents in Hungary and Romania, followed by their overtaking incumbents within two years, might signal an environment more conducive to learning and experimentation.

Survival rates after seven years were roughly 30 percent in both Hungary and the Russian Federation, implying that 70 percent of an entering cohort of new private firms did not survive after seven years (figure 2.6). Entrants were 25 percent less productive than incumbents in Hungary, but 15 percent more productive in the Russian Federation at entry. Survival to seven years thus involved a new private entrant having on average a clear edge over private incumbents in the Russian Federation at entry, whereas a clear disadvantage would have sufficed in Hungary, presumably because of greater learning opportunities.

In Romania and Ukraine four-year survival rates were broadly comparable at 70 percent. Entrants were nearly 30 percent less productive

FIGURE 2.6
Survival Rates



Source: Brown and Earle 2007.

Note: Entrants with state ownership are not included. These are unweighted averages over 2001–04 for Georgia, 1991–2003 for Hungary, 1993–2005 for Romania, 1993–2004 for Russian Federation, and 1994–2005 for Ukraine.

than incumbents in Romania, but nearly 30 percent more productive than incumbents in Ukraine at entry. Survival to four years thus involved a new private entrant having on average a clear edge over incumbents in Ukraine at entry, but a clear disadvantage in Romania. This applies even more to seven-year survival rates, which were around 15 percentage points higher in Romania than in Ukraine.

Between-Firm Effect

Reallocations of resources between continuing firms (the between-firm effect) were mostly positive, so resources were indeed reallocated from less to more productive firms among continuers. The effect was modest before the transition, but greater once the transition began. This was so in Hungary, an early reformer in 1992–95, and in the Russian Federation and Ukraine, two late reformers, but not until their recovery from the 1998 regional financial crisis. Indeed, the between-firm effect was more important than the within-firm effect in the Russian Federation over 2001–04 and in Romania after 1998. It is important to note that productivity growth after 1998 in the Russian Federation and Ukraine did not occur simply from restoring labor productivity in incumbent firms to their pre-transition levels. It also came from reallocating resources among continuing firms and

from net entry. Together, the two were more important than within-firm productivity growth in the Russian Federation in 2001–04 and Ukraine in 2002–05.

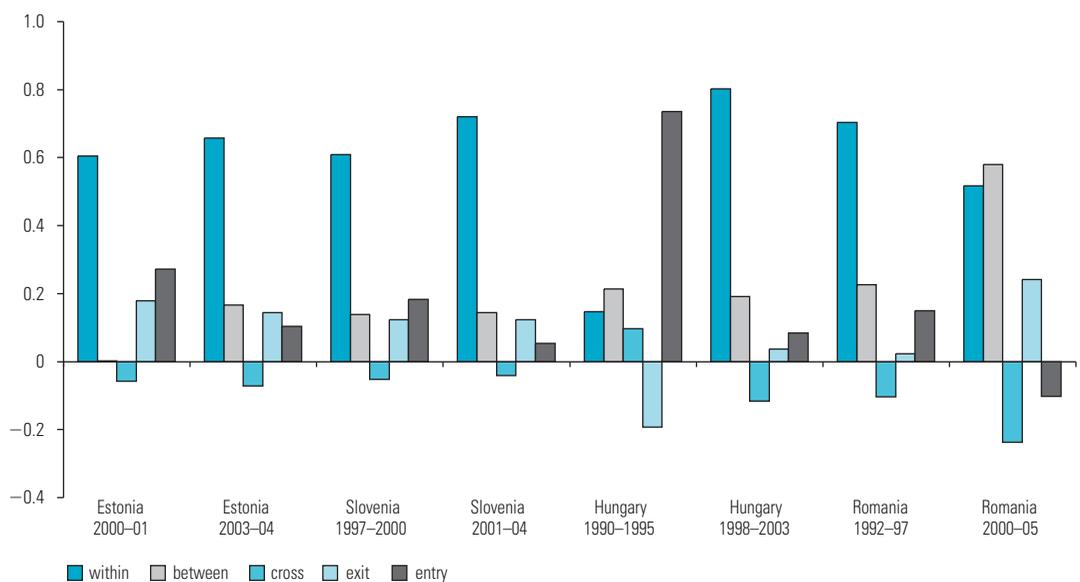
Cross Effect

The cross effect tended to be negative in most countries, including the transition countries. This implies that, on average, firms experiencing rising productivity reduced their share of employment, while firms experiencing declining productivity raised their share of employment. The pattern of restructuring among continuing firms has therefore on average been defensive, characterized by downsizing and retrenchment, not strategic, reallocating labor to firms with rising productivity.

Competition and Net Entry

Net entry was an important source of productivity growth at the start of the transition, but its importance relative to that of within-firm effects declined for early reformers—in Estonia (2000–04), Slovenia (1997–2004), and Hungary (1990–2003) and to a much less extent in Romania (1992–2005), where the reform effort was weaker in the early years (figure 2.7). Part of the explanation is that the profitable

FIGURE 2.7
Sources of Productivity Growth, Selected Countries

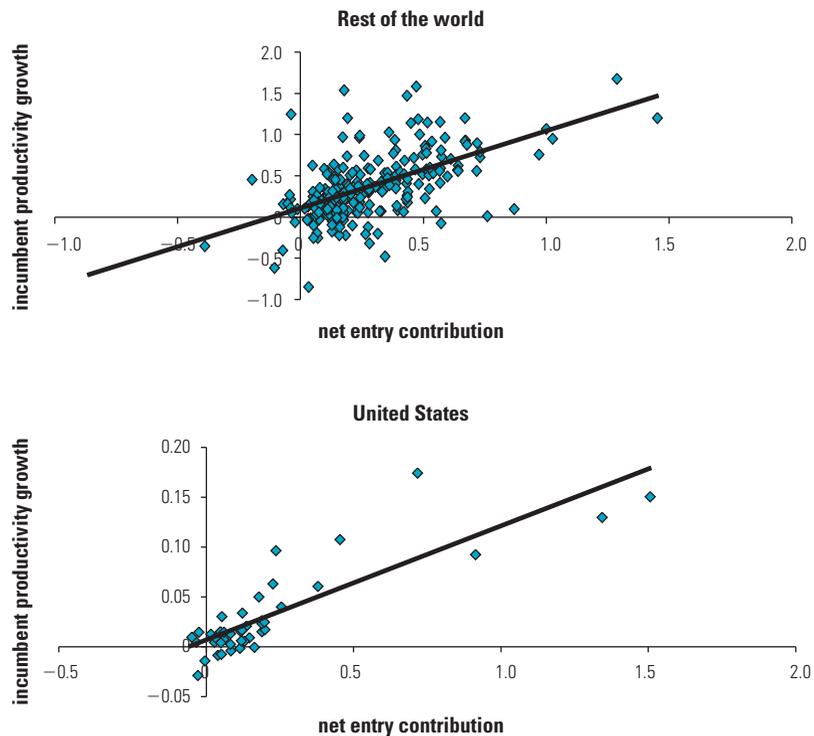


Source: Bartelsman, Haltiwanger, and Scarpetta 2004 for Estonia and Slovenia; and Brown and Earle 2007 for Hungary and Romania.

niches for entrants gradually disappeared as the transition proceeded. To the extent that the productivity gains from the historic misallocation of resources have been realized, this signals the end of the transition.

Net entry declines to levels more characteristic of market economies as the transition progresses. But that does not mean that it becomes unimportant. The contribution of net entry to productivity growth complements the within-firm effect. Indeed, there is a strong and significant correlation in the entire sample of developed, transition, and developing countries, taken together, between the contribution of net entry to productivity growth and the within-firm effect (figure 2.8). The competition generated by entry and exit—and the risk of failure to which that competition gives rise—can be associated with greater discipline among incumbent firms and with learning in incumbent firms.⁴ This is true for the United States (figure 2.8). But the relationship does not hold when confined to the transition countries, except Slovenia, an advanced reformer and the wealthiest among the transition countries, now a member of the eurozone (figure 2.9). It appears

FIGURE 2.8
Incumbent Productivity Growth and the Contribution of Net Entry



Source: Bartelsman, Haltiwanger, and Scarpetta 2004; Bartelsman and Scarpetta 2007.

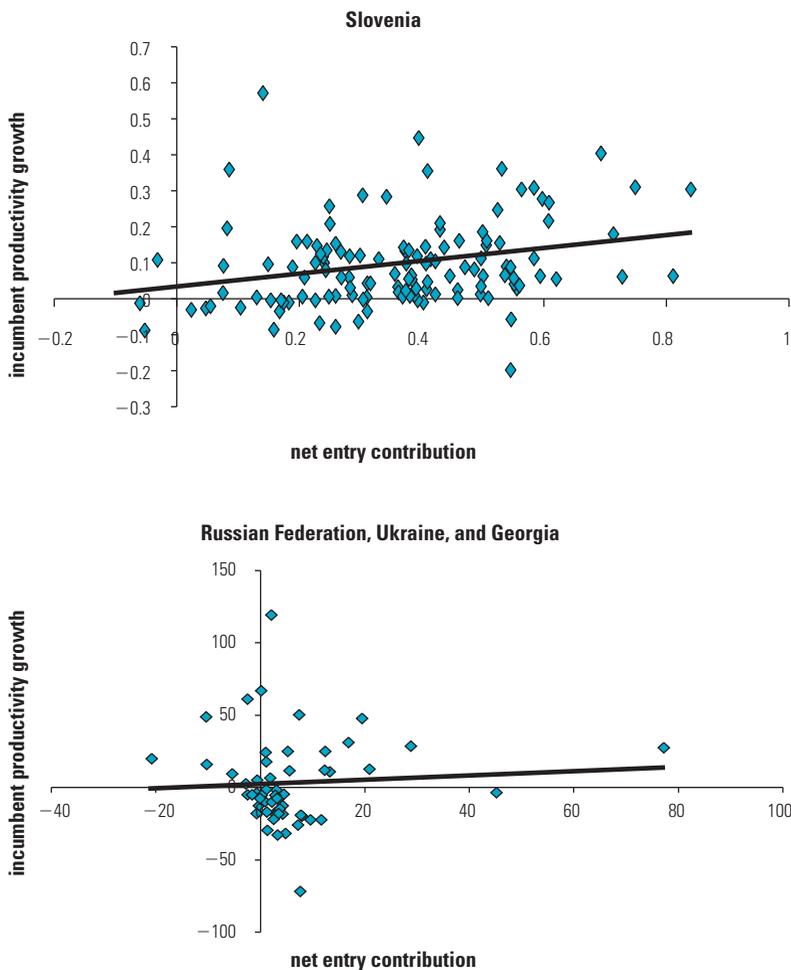
Note: Data in the "Rest of the World" figure exclude Brazil and Venezuela. Outliers are excluded.

that net entry in transition economies has been a mechanism for changing the supply side of the economy and does not as yet signal the overall state of competition in the market. Only after the rates of entry and exit have settled down, can firm turnover pressure incumbents to perform better in a competitive environment. How competition in the transition countries compares with developed market economies and how it affects restructuring are discussed in Chapter 3.

Agriculture

Low productivity in the low income CIS countries, especially in agriculture, explains why employment does not guarantee an escape

FIGURE 2.9
Incumbent Productivity Growth and the Contribution of Net Entry



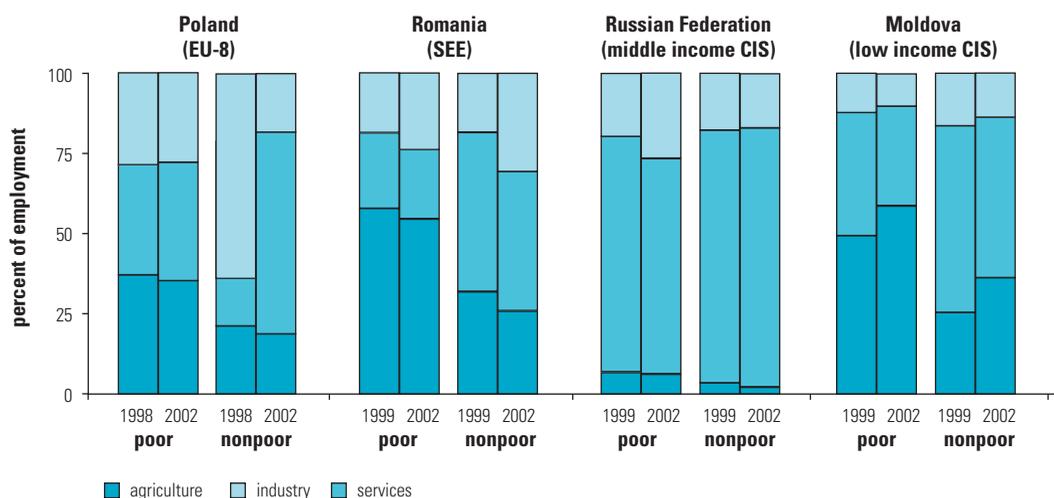
Source: Bartelsman, Haltiwanger, and Scarpetta 2004; Bartelsman and Scarpetta 2007; Brown and Earle 2007.

from poverty. Figure 2.10 shows that the poor are overrepresented in agriculture, and in some low income CIS countries employment in agriculture has expanded for the poor. This expansion, including self-employment, was preferable to unemployment from the deindustrialization that occurred when uncompetitive Soviet-era industry was faced with world prices at the onset of the transition. In subgroups of transition countries and other countries at broadly comparable incomes, agriculture is less productive than industry and services (figure 2.11). This explains why Chapter 5 will find that the risk of poverty for a household whose head is employed in agriculture is significantly higher than that whose head is in industry and services. Furthermore, a large part of the population (40 percent in Moldova and 20 percent in Georgia) relies on subsistence farming as the main source of livelihood, compared with 2 percent in Hungary and Poland, 11 percent in Romania, and 14 percent in the Russian Federation. With labor productivity in agriculture as low as in low income Asia, it is not surprising that poverty continues to be a major problem in the low income CIS countries.

The expansion of agricultural employment for the poor reflected the fact that the low capital intensity of farming served as a coping strategy in the absence of adequate social safety nets during the transition. Land distribution from large, formerly collective farms to poor rural households led to gains in labor productivity and, because of the labor inten-

FIGURE 2.10

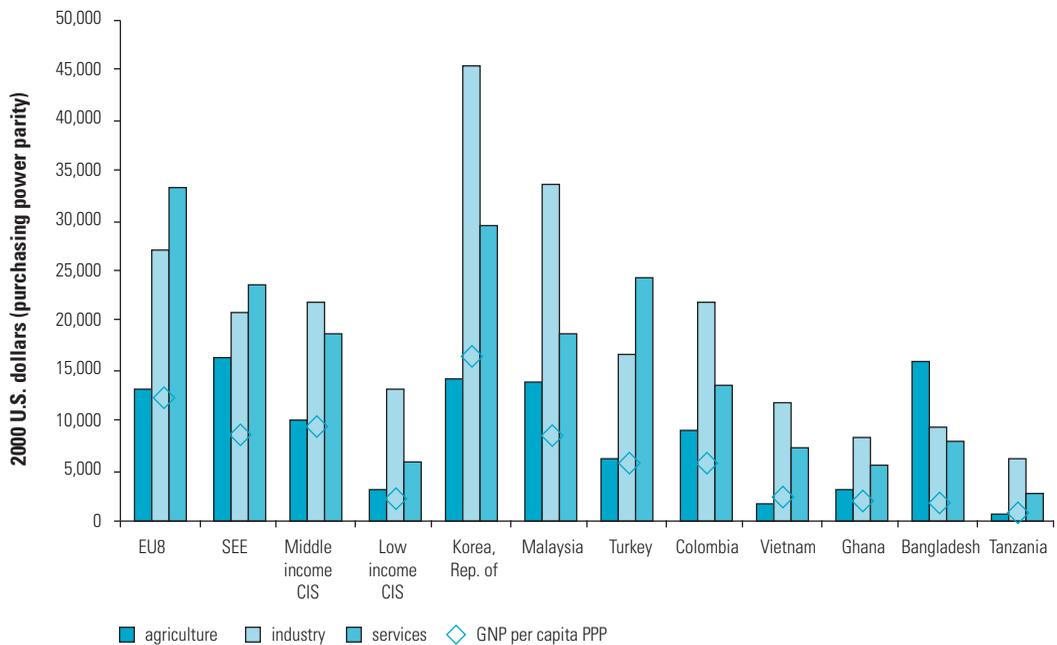
Sectoral Wage Employment for the Poor and Nonpoor, Selected Countries



Source: World Bank staff estimates using data from ECA Household Survey Archive; World Bank 2005a.

Note: Sectoral employment data are derived from household survey data and may differ from official statistics; includes full-time and part-time employment with at least one hour of gainful work in the reference period of the survey. The data are not substantially altered when using purchasing power parities.

FIGURE 2.11
Sectoral Value Added per Worker



Source: World Bank World Development Indicators Database; ILO Key Indicators of the Labour Market (KILM) database; and World Bank staff estimates.

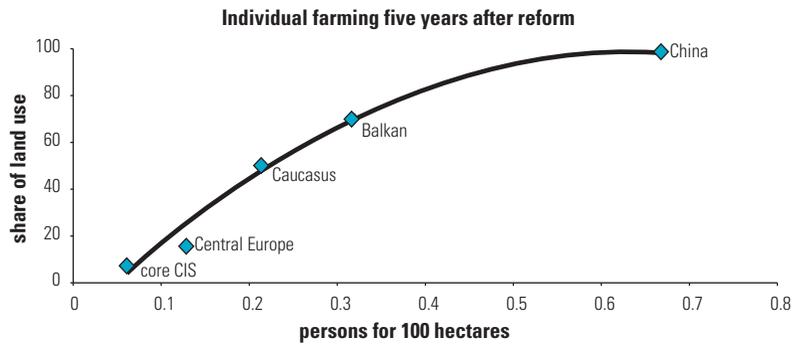
Note: Value added and GNP per capita data in 2000 PPP U.S. dollars for 2002, or the latest available year. For this figure, EU8 countries include Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, and Slovenia. Southeastern European countries include Bulgaria and Romania. Low income CIS countries include Armenia, Azerbaijan, Georgia, Kyrgyz Republic, and Uzbekistan. Middle income CIS countries include the Russian Federation.

sity of agriculture in those countries, allowed an expansion of self-employment. The distribution of land plots, which was broadly comparable to those in China in the late 1970s and Vietnam in the mid-1980s, occurred in Albania, Armenia, and Georgia in the early 1990s, in the Kyrgyz Republic in the mid-1990s, in Azerbaijan in the late 1990s, and in Moldova after 1999. The correlation between labor intensity in agriculture and the growth of household farming is high (figure 2.12).

Developments in agriculture in the low income countries mirrored those in business, where old firms released assets that new firms could use to attain higher productivity through learning. In the Kyrgyz Republic productivity was low in agricultural enterprises and could be increased by redistributing the significant share of arable and pasture land still occupied by those enterprises to higher productivity peasant farms. Those farms, which formed the basis for the Kyrgyz Republic’s agricultural transformation, account for the bulk of arable land use, agricultural value added, agricultural employment, and the land lease market.

But the boost to labor productivity from land redistribution, though important and illustrating the need to complete farm restruc-

FIGURE 2.12

Factor Intensity and the Growth of Household Farms

Source: Rozelle and Swinnen 2004, as reported in World Bank 2005a.

turing in countries where it has slowed or stalled, was a one-off event. And without a social safety net, absorbing an older labor force into semi-subsistence farms lowered productivity. Continuing gains in labor productivity will require on-farm technology transfer to improve yields for crops and livestock. It will also require better integration of agricultural households into labor markets to provide off-farm employment or access to urban labor markets in order to reduce surplus labor. And it will require better credit markets, reduced marketing costs, and improved rural service delivery, to strengthen the human capital of rural households.

In middle income CIS countries such as the Russian Federation and Kazakhstan, the higher capital intensity of agriculture implied that restructuring large farms would produce neither higher incomes nor higher unemployment. The devaluation after the 1998 financial crisis in the Russian Federation pushed up relative prices and farm profitability without any big increase in productivity. Higher productivity will require better integration with markets for other inputs and factors, markets that had collapsed in the early years of the transition. Similarly, the capital-intensive agricultural production systems in Southeastern European countries, such as Bulgaria and Romania, implied that productivity gains from shifting to small farms were less than those in poor countries with labor-intensive agriculture. And with social safety nets less developed than in the EU8, those laid off had to rely on subsistence farming, increasing the share of employment in agriculture (see figure 2.10). Low access to credit, inputs, and technology and limited off-farm employment opportunities in rural areas continue to constrain rural growth and highlight what needs to be done to develop agriculture.

Much of the growth in agricultural labor productivity in the EU8 countries came from substantial labor shedding in large-scale farms. Those laid off either found jobs in other sectors, became unemployed, or went into retirement, thanks to generous social safety nets, fiscally affordable because of the initially low agricultural employment in those countries. At 9 percent, the share of agricultural employment in the EU8 is close to the benchmark for the European Union. Growth in agricultural labor productivity has been more rapid in the Czech Republic, Estonia, Hungary, Lithuania, and the western and north-western regions of Poland and the Slovak Republic, which are dominated by large-scale farming. But substantial increases in investment and intermediate inputs imply that the growth in total factor productivity has been less than that of agricultural labor productivity in the Czech Republic and Hungary. Labor productivity has grown more slowly in the eastern and southern regions of Poland and in Latvia and Slovenia, where small-scale farming is more prevalent. Better electricity, transport, and financial services, driven by liberalization, can boost labor productivity in agriculture in the EU8.

Services⁵

The contribution of services to GDP increased substantially after the beginning of the transition, now ranging from 43 percent in the low income CIS countries to 62 percent in the EU8 and Southeastern European countries. Services' share in GDP among the middle income countries of the region during 2001–04 varied from around a third in Serbia and Montenegro and Macedonia to more than half—higher than the average in the EU15—in Estonia and Latvia.^{6,7} The sector's share in employment over the same period ranged from a fifth in Romania to around a third in Estonia, Croatia, and Latvia. Within services, transport, telecommunications, and financial services—the backbone services—and retail trade in the EU8 countries exhibited the strongest productivity growth in 1997–2000 and 2000–04.

Liberalizing services typically combines competition (dismantling entry barriers) with better regulation (establishing an appropriate legal and institutional environment). There is a strong association between service liberalization and the productivity performance of service sectors. If recent productivity growth continues, it will improve the efficiency of those services. The efficiency of service industries is important for two reasons. First, these sectors contribute directly to overall economic performance. Second, service industries

are critical inputs for downstream manufacturing sectors, contributing on average around 10-20 percent to the cost of a product and accounting for all trading costs (transport, trade finance, insurance, communications, and distribution services). Manufacturing industries that rely more on inputs from more liberalized service sectors have higher productivity than other manufacturing industries. High quality services also make a location more attractive for foreign direct investment. Such improvements are important for the external competitiveness of sectors using services and enable their deeper integration into global production chains, a subject which is further explored in Chapter 6. On average, more progress in liberalizing services has been made in the telecommunications and electricity industries and in the EU8, Bulgaria, and Romania.

Endnotes

1. In figure 2.2 and the accompanying text, EU10 refers to the new member states of the European Union (the EU8, Bulgaria, and Romania).
2. A formal statement is contained in the appendix.
3. The within-firm effect, whose precise formulation is shown in the appendix, can reflect measurement errors in price changes associated with quality differences or volatile inflation. It thus requires cautious interpretation (Brown and Earle 2007).
4. Such a correlation could also arise if there are technological improvements benefiting both incumbents and new entrants. But the possibility of this generating the correlation can be ruled out. This is because the within-firm effect is also positively and significantly correlated with the rate of firm turnover.
5. For a fuller account see World Bank (2008a)
6. The service sector in this comparison is defined to include market services and public utilities, excluding government services and construction.
7. The countries in the comparison include Bulgaria, Croatia, Macedonia, Romania, Serbia and Montenegro, Ukraine, Russian Federation, and the EU8 countries.

The Business Environment

The business environment is widely acknowledged as an important determinant of firm behavior.¹ Detailed information on key aspects of the business environment comes from the EBRD-World Bank Business Environment and Enterprise Performance Surveys (BEEPS), which have been implemented for virtually all the transition countries of Eastern Europe and the former Soviet Union in 1999, 2002, and 2005. The survey was extended to cover Germany and the cohesion countries, as well as Korea and Vietnam, in 2004 and 2005.² Survey samples were constructed by random sampling from a national registry of firms or equivalent, with oversampling of some additional categories of firms to ensure reasonable subsample sizes. The firms covered are drawn from industry and services. As with the population of firms everywhere, firms in transition countries are mostly small and medium, and a majority (60 percent in 1999, rising to 75 percent in 2005) are *de novo* firms—those that were always private. Privatized firms make up about 15–25 percent of the sample, and the remaining 10–15 percent are state owned, with both proportions falling over time. The BEEPS samples from West Germany and the cohesion countries have very few privatized and state-owned firms.

This chapter is based on Mitra, Muravyev, and Schaffer (2008).

Enterprise managers in the Business Environment and Enterprise Performance Surveys (BEEPS) report that the business environment—comprising the seven broad areas in the surveys, business regulation, labor, taxation, institutions and property rights, infrastructure, finance, and the macroeconomic environment—steadily improved in the transition countries between 1999 and 2005 but remains mostly more difficult than in developed market economies. The main exceptions are labor regulations, which are seen as more of an obstacle in the developed market economies.³

This chapter analyzes how two key elements of the business environment, viz, (a) competition and market structures and (b) finance and the structure of lending have developed between 1999 and 2005 and how they compare with the same elements of the business environment in West Germany and the cohesion countries in 2004/2005. Firms respond to the business environment by undertaking a number of activities, all falling under the rubric of deep restructuring, which include adopting new products and processes, upgrading old products and processes, licensing technology, improving organizational efficiency, and certifying quality. These are typically the activities associated with innovation, which develops knowledge new to the world, and absorption of knowledge, which requires integrating and commercializing knowledge new to the firm but not to the world. This chapter also identifies the correlates of such restructuring in transition and developed market economies.

Competition and Market Structure

The BEEPS contain several measures of competition. A first measure is the number of competitors an enterprise faces in its product or service lines in the domestic market: none (monopoly), 1 to 3 (oligopoly or rivalry), or 4 or more (competitive). Competition in transition economies increased between 1999 and 2002. In 2005 it was similar to but slightly below that in the cohesion countries and West Germany (table 3.1). These results hold when the analysis controls for such firm characteristics as size and industry, and they hold across country groups. The similar degree of competition in the transition economies in 2002 and 2005 might reflect how the question was asked in 2005, when firms were asked separately about domestic and foreign markets. The 2004 and 2005 surveys asked a retrospective question about competition faced three years earlier. The responses suggest, if anything, a further catching up of the transition economies

TABLE 3.1

Market Structure—Number of Competitors

(Percentage of firms)

	None (monopoly)	1 to 3 (oligopoly or rivalry)	4 or more (competitive)
Transition economies			
1999	9.6	12.7	77.7
2002	1.4	16.9	81.7
2005	4.0	14.3	81.7
West Germany and cohesion countries			
2004–05	1.4	13.8	84.8

Source: Mitra, Muravyev, and Schaffer 2008.

to competition in West Germany and the cohesion countries. Of the firms facing moderate competition in 2002 (1–3 competitors), 34 percent in the transition economies stated they faced strong competition (4 or more competitors) in 2005, compared with 22 percent in the developed market economies. Of the firms that faced strong competition in 2002, 18 percent in transition economies said they faced less competition in 2005, compared with 15 percent in the developed market economies.

Firms generally reported more intense competition across all transition country regions between 2002 and 2005. In 2005 the environment was the least competitive in the low income CIS countries and the most in the EU8 and the cohesion countries. The fastest change in market structure occurred in the middle income CIS countries, followed by the Southeastern European countries and the low income CIS countries, most likely due to new firms filling market niches where competition was low. The EU8 countries were fairly close to the cohesion countries in market structure.

A second measure of competition is the price elasticity of demand facing firms. Managers were asked what would happen to demand if they were to increase the price of their product by 10 percent. The available responses ranged from customers continuing to buy from them in the same quantities (inelastic), slightly lower quantities (slightly elastic), or much lower quantities (elastic), and many customers buying from the firms' competitors instead (very elastic). Less elastic demand may be seen as a measure of the resources that can accrue to a firm without being competed away in markets where the firm enjoys some monopoly power. The overall price elasticity during the period of 1999 through 2005 in the transition economies is similar to that in the developed market economies (table 3.2). Firms in transition economies in 1999 reported facing elasticities of demand slightly higher than the market economy benchmark (the developed

TABLE 3.2

Price Elasticity of Demand

(Percentage of firms)

	1 (low)	2	3	4 (high)
Transition economies				
1999	14.3	25.2	25.0	35.5
2002	19.9	30.5	17.9	31.7
2005	22.5	30.6	18.5	28.7
West Germany and cohesion countries				
2004–05	15.5	26.7	26.3	31.5

Source: Mitra, Muravyev, and Schaffer 2008.

market economies in 2005); and in 2005, elasticities of demand slightly lower.

The intensification of firm perceptions of monopoly power during a period when the number of competitors faced in product markets is reported to have increased appears counterintuitive. It can be explained by the business cycle rather than the business environment. In a macroeconomic recovery the number of competitors stays the same but demand grows, which is perhaps perceived as less elastic demand. Two findings lend support to this view. First, capacity use reported by firms in the surveys, which is highly correlated with the business cycle, is somewhat (negatively) correlated with firm-reported price elasticity of demand. That is, higher capacity use is associated with lower reported price elasticity of demand, but there is no evidence of a correlation between the number of competitors and capacity use. Second, country patterns suggest a relationship between macroeconomic performance and changes in the elasticity of demand. Thus, enterprise managers in the Russian Federation and Ukraine, both of which grew rapidly during this period, report falling elasticities of demand, while those in Uzbekistan, which saw relatively slower growth, report rising elasticities. Hence, the substantial macroeconomic recovery in much of the region may account for a decline in firm-reported price elasticity of demand.

A third set of measures of competition have to do with firms' assessment of their importance. The perceived competition from imports in firms' main product or service market in transition economies in 2002 and 2005 was broadly comparable to what enterprise managers in developed market economies reported in 2005 (table 3.3). The variation across transition country groups arises from country size, which reflects the size of the domestic market and the scale of domestic competition. Imports are generally less important in large countries. Of firms in the cohesion, EU8, Southeastern European, and low income CIS countries, 11–14 percent reported compe-

TABLE 3.3

Importance of Foreign Competition

(Percentage of firms)

	1 (low)	2	3	4	5 (high)	n.a.
Transition economies						
2002	29.7	13.1	22.6	19.1	9.9	5.7
2005	28.5	15.4	20.7	18.7	10.0	6.8
West Germany and cohesion countries						
2004–05	27.3	14.7	19.3	20.4	11.8	6.5

Source: Mitra, Muravyev, and Schaffer 2008.

n.a. = Not applicable; products cannot be imported.

tion from imports as being high in 2005. The corresponding figure for West Germany and the middle income CIS countries, most of them Russian firms, was only 5 percent. While 51 percent of Russian firms reported pressure from imports as insignificant, the figure was only 38 percent for the other middle income CIS countries—Belarus, Kazakhstan, and Ukraine.

What about pressure from foreign competitors, domestic competitors, and customers as a spur to “developing new products or services or markets” and “reducing the production costs of existing products or services”? Pressure from foreign competitors to restructure has always been important in the transition economies, broadly similar to that in the developed market economies (table 3.4). The strongest pressure—indeed higher than for the developed market economies—is in the EU8 and Southeastern European countries. It is much less important in the CIS countries that are farther from the most important advanced market: the European Union. Because productivity and product quality tend to be low in those countries, domestic producers can occupy niches less exposed to international trade. Pressure

TABLE 3.4

Pressure from Foreign Competitors

(Percentage of firms)

Group	To develop new products			To reduce costs		
	1999	2002	2005	1999	2002	2005
West Germany	—	—	1.85	—	—	1.90
Cohesion	—	—	2.03	—	—	2.03
EU8	2.34	2.20	2.21	2.28	2.14	2.19
Southeastern Europe	2.29	2.16	2.23	2.29	2.14	2.23
Middle income CIS	1.66	1.80	1.70	1.59	1.72	1.65
Low income CIS	1.82	1.90	1.81	1.78	1.84	1.74

Source: Mitra, Muravyev, and Schaffer 2008.

Note: Firms were asked about the importance of pressure from foreign competitors in “developing new products” or “reducing costs”. Score range: 1 (not at all important), 2 (slightly important), 3 (fairly important), 4 (very important).
— indicates that data are unavailable.

to restructure from foreign competitors is less important in the middle income CIS countries than in the low income CIS countries, reflecting the minor role of import competition even for a large country such as the Russian Federation.

Managers in all country groups report pressure from domestic competitors and customers to develop new products and reduce costs as being more important than that from foreign competitors (tables 3.5 and 3.6). It varies less across transition country groups than for foreign competition. It is strongest in the EU8 countries and lowest in the CIS countries. Southeastern Europe is in between, occupying a position similar to the cohesion countries for pressure from domestic competitors, and to West Germany and the cohesion countries for pressure from customers. The pressure from domestic competitors to

TABLE 3.5

Pressure from Domestic Competitors

(Percentage of firms)

Group	To develop new products			To reduce costs		
	1999	2002	2004/05	1999	2002	2004/05
West Germany	—	—	3.08	—	—	3.06
Cohesion	—	—	2.87	—	—	2.81
EU8	2.84	3.02	3.10	2.77	2.96	3.05
Southeastern Europe	2.84	2.74	2.97	2.83	2.68	2.94
Middle income CIS	2.31	2.69	2.70	2.24	2.62	2.63
Low income CIS	2.31	2.50	2.56	2.21	2.40	2.47

Source: Mitra, Muravyev, and Schaffer 2008.

Note: Firms were asked about the importance of pressure from domestic competitors in “developing new products” or “reducing costs”. Score range: 1 (not at all important), 2 (slightly important), 3 (fairly important), 4 (very important).

— indicates that data are unavailable.

TABLE 3.6

Pressure from Customers

(Percentage of firms)

Group	To develop new products			To reduce costs		
	1999	2002	2004/05	1999	2002	2004/05
West Germany	—	—	3.07	—	—	2.91
Cohesion	—	—	3.12	—	—	2.98
EU8	3.01	3.16	3.28	2.87	3.05	3.20
Southeastern Europe	2.65	2.92	3.10	2.57	2.81	3.00
Middle income CIS	2.36	2.88	2.68	2.25	2.72	2.58
Low income CIS	2.30	2.59	2.51	2.21	2.52	2.43

Source: Mitra, Muravyev, and Schaffer 2008.

Note: Firms were asked about the importance of pressure from customers in “developing new products” or “reducing costs”. Score range: 1 (not at all important), 2 (slightly important), 3 (fairly important), 4 (very important).

— indicates that data are unavailable.

restructure has, however, been generally increasing, unlike that from foreign competitors, which did not change much during this period.

The pressure to develop new products and reduce costs shows some convergence with developed countries. The EU8 countries are farthest along in the process, followed by the Southeastern European and CIS countries. Foreign competition was always present, but firms at the beginning of the transition could occupy niches that were thin or nonexistent in the planned economy and avoid domestic competition. Not many domestic firms could challenge foreign competition in the early years of transition. But domestic competition became more important as countries proceeded toward a market economy.

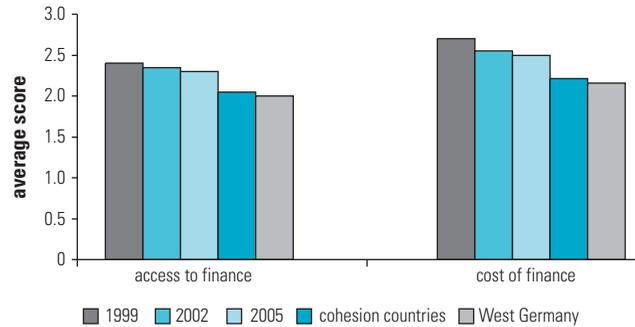
Finance and the Structure of Lending

Firms in developed market economies report fewer problems in finance—as regards cost and access—than those in the transition economies, where problems are most pronounced in the low income CIS, less in the middle income CIS and Southeastern European countries, and least in the EU8, declining between 1999 and 2005 (figures 3.1 and 3.2). Cost is seen as more of a problem than access. Large firms, firms in major cities, and foreign-owned firms report fewer obstacles to obtaining finance. This is similar to the pattern in developed market economies, except that there is no difference in the developed group between major cities and other parts of the country. The pattern in transition countries thus reflects the incomplete within-country integration of the financial sector.

Privatized and de novo firms in the transition economies face higher costs of credit than do state-owned firms. Smaller firms pay more, while those in majority foreign-owned firms and in big cities pay less. Small firms face more difficulty in getting finance, while those in big cities and majority foreign-owned firms face less. Higher performing firms use external finance more often, enjoying lower costs and longer maturities. The maturity of loans is longer in the cohesion countries and West Germany, followed by the EU8 countries. The costs of loans declined between 1999 and 2005, approaching those in the developed market economies.⁴

The focus here is on financing fixed investment—to explore whether finance enables restructuring and productivity growth in firms. Retained earnings are the most important source of finance for fixed investment in both developed market economies and the transition country groups (table 3.7). West Germany relies less on internal financing than the cohesion countries because of formal capital mar-

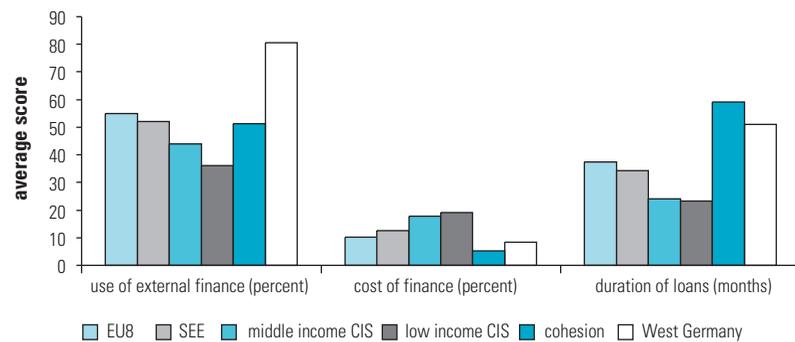
FIGURE 3.1
Financial Constraints



Source: BEEPS 1999, 2002, 2004, and 2005.

Note: Firms were asked to report how problematic different factors were to their operation and growth. Scores ranged from 1 (no obstacle) to 4 (major obstacle). Data correspond to BEEPS undertaken in transition countries in 1999, 2002, and 2005 and in cohesion countries (Greece, Ireland, Portugal, and Spain) and West Germany in 2004/05.

FIGURE 3.2
Regional Differences in Access to Finance



Source: BEEPS 2004 and 2005.

Note: The chart reports the use of external finance (percentage of firms), the average interest rate on existing loans (in percent), and the average maturity of the last loan (months) in transition countries in 2005, and cohesion countries (Greece, Ireland, Portugal, and Spain) and West Germany in 2004.

TABLE 3.7
Sources of Financing, 2004–05

	Retained earnings	Equity	All banks	Of which: State banks	Family	State ^a	Leasing	Other
West Germany	49.1	9.7	23.0	3.9	0.6	0.2	12.1	5.1
Cohesion	61.3	2.6	20.0	3.1	1.1	0.6	9.4	5.1
EU8	63.0	6.4	13.7	2.8	2.2	1.1	7.4	6.3
Southeastern Europe	71.9	0.5	16.1	1.4	3.2	1.1	2.7	4.6
Middle income CIS	76.9	3.4	10.0	2.0	2.8	1.4	1.7	3.9
Low income CIS	79.8	0.3	11.1	0.8	3.7	1.8	0.3	3.1

Source: Mitra, Muravyev, and Schaffer 2008

Note: Bank financing includes state banks.

a. State refers to nonbank financing (grants and subsidies, for example; see footnote 22).

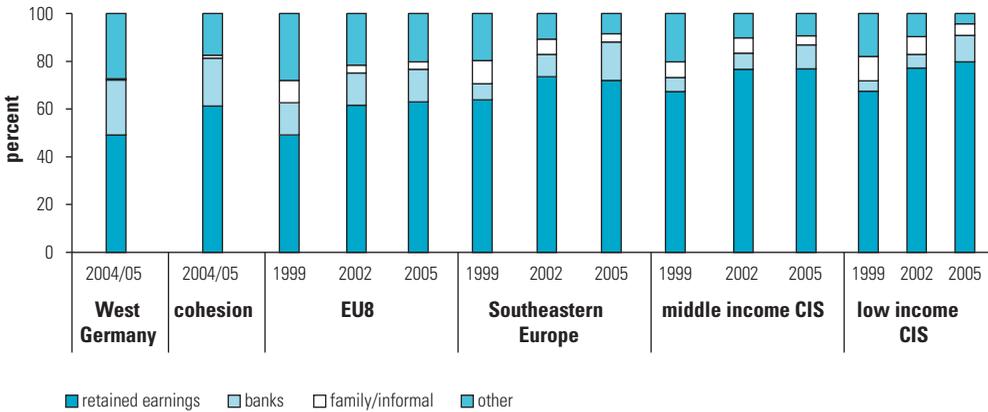
kets, with both bank and equity financing. The EU8 countries resemble the cohesion countries both in retained earnings and in formal capital markets, except that equity offers are more important than bank financing in the EU8. Overall, the reliance on retained earnings and capital markets is related to income, with the former increasing and the latter decreasing for the poorer country groups. The role of state banks is somewhat smaller in the transition countries than in the developed market economies. State banks do not appear to be a conduit for the soft budget constraint, at least for the most part.

Reliance on retained earnings in all subgroups of transition countries has been increasing, so their structure of financing has not been converging to that in the developed market economies (table 3.8 and figure 3.3). This is not because of a decline in the role of banks, which remained stable in the EU8 countries and actually increased for the remaining transition country groups. Equity financing has been generally small and declining over time. The greater reliance on retained earnings instead reflects a decline in loans from family, friends, and money lenders. It thus represents maturing financial and business sectors in the transition countries, not a decline in the institutions of formal finance.

Regression analysis relating the shares of the various sources of finance to firm characteristics such as ownership, export activity, location, size, and sector in both developed market economies and transition economies shows that:

- Large firms rely more on bank financing and less on retained earnings.

FIGURE 3.3
Evolution of Financing for Fixed Investment



Source: Mitra, Muravyev, and Schaffer 2008.

Note: Equity finance is small in the transition countries and is absorbed in "other."

TABLE 3.8

Evolution of Financing, 1999–2005

	Retained earnings			Banks			Equity			Family/informal		
	1999	2002	2004/05	1999	2002	2004/05	1999	2002	2004/05	1999	2002	2004/05
West Germany			49.1			23.0			9.7			0.6
Cohesion			61.3			20.0			2.5			1.3
EU8	49.1	61.6	63.0	13.6	13.5	13.7	10.5	5.4	6.4	9.3	3.3	3.0
Middle income Southeastern Europe	63.8	73.5	71.9	6.8	9.4	16.1	8.5	1.6	5.0	9.6	6.4	3.5
Middle income CIS	67.3	76.6	76.9	5.9	6.8	10.0	1.6	0.8	3.4	6.5	6.4	3.7
Low income	67.5	77.1	79.8	4.3	5.8	11.1	1.1	0.3	0.3	10.2	7.4	4.8

Source: Mitra, Muravyev, and Schaffer 2008.

Note: Banks include state-owned banks.

- Foreign-owned firms rely less on bank financing and more on retained earnings, presumably because foreign owners can make finance available through equity injections.⁵
- Exporters rely more on external financing, including both banks and equity.

These stylized facts help in comparing the structure of financing for fixed investment across subgroups of countries, by ownership categories and over time. The BEEPS allow comparisons of the structure of financing of firms along three dimensions: country groups, ownership, and time periods.

Comparisons across country groups are confined to developed market economies, where most firms are privately owned, and to private—privatized and de novo; i.e., always private—firms in the transition economies in 2005. Private firms in the transition countries are substantially larger, less concentrated in manufacturing, and more likely to be in big cities than private firms in the developed market economies. The impact of size, per the analysis reported above, would have transition economy firms rely more on external finance and less on retained earnings. In fact, however, private firms in the transition economies resort much more to retained earnings and to family and informal sources—much less to external finance (figure 3.4).

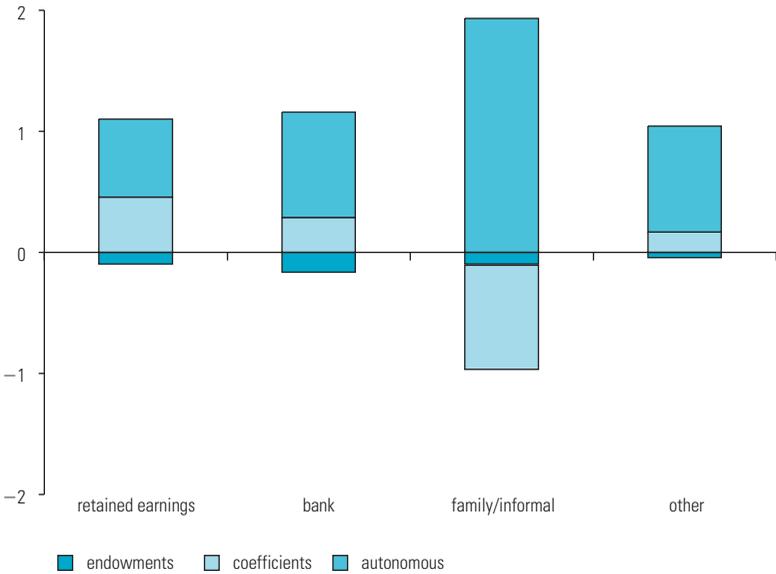
These differences do not arise from observed firm characteristics such as size (number of employees), sector (manufacturing or services), location (big cities or elsewhere), export orientation and majority ownership (domestic or foreign-owned), referred to as “endowments” (figure 3.5). Nor do they arise particularly on account of differences in the underlying relationship linking those characteristics and the structure of finance between developed market

FIGURE 3.4
The Structure of Finance for Fixed Investment in Private Firms in Transition Economies and Developed Market Economies, 2005



Source: Mitra, Muravyev, and Schaffer 2008.

FIGURE 3.5
Decomposition of Difference in the Structure of Financing for Fixed Investment between Transition Economies and Developed Market Economies



Source: Mitra, Muravyev, and Schaffer 2008.

economies and transition economies, referred to as “coefficients”. Instead they are due to “autonomous” factors having to do with the maturation of the business and financial sectors in the transition economies (figure 3.5).

This supports the view that the relationship between firm characteristics and financing is similar in the developed market economies and the transition economies.

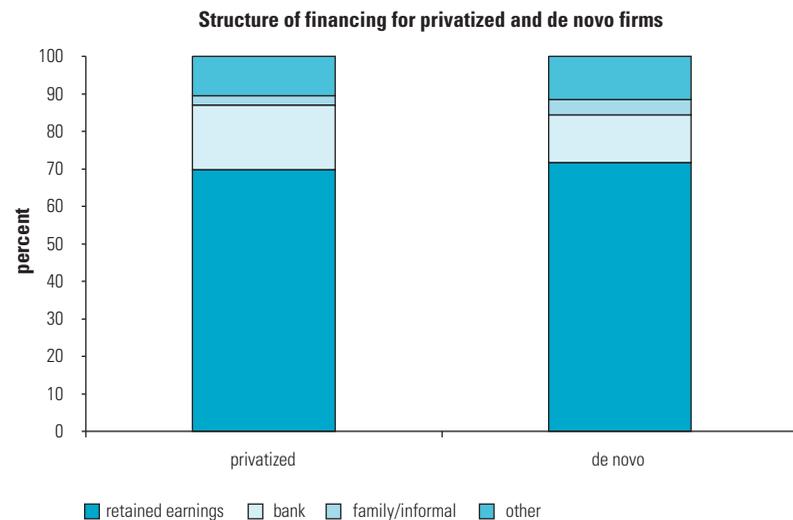
Comparisons across ownership categories are done for privatized firms and de novo firms in transition economies in 2005. The structures of financing for the two categories of firms are quite similar. Privatized firms, on account of their larger size, rely more on bank financing and less on retained earnings than do de novo firms. Both types of firms are equally likely to use informal sources of finance (figure 3.6).

Comparisons over time are done for de novo firms in 1999 and 2005. De novo firms in 2005 are smaller than in 1999 and less likely to be in manufacturing and big cities. The impact of smaller size would suggest greater resort to informal finance and less reliance on retained earnings and banks in 2005 than in 1999. In fact, the structure of financing in 2005 relied much more on retained earnings and on banks and less on informal finance (figure 3.7). This is a process of maturation that is owed not so much to firm characteristics or their impact on financing, but to autonomous factors.

Together, these three comparisons support convergence: (i) de novo firms have matured during 1999 to 2005, in that they rely less on family and informal financing and more on retained earnings, like

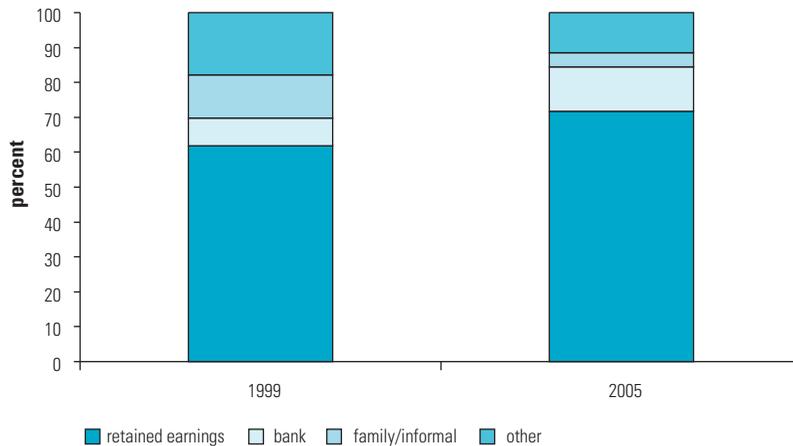
FIGURE 3.6

The Structure of Finance for Privatized and De Novo Firms, 2005



Source: Mitra, Muravyev, and Schaffer 2005.

FIGURE 3.7

The Structure of Finance for De Novo Firms, 1999 and 2005

Source: Mitra, Muravyev, and Schaffer 2005.

privatized firms; (ii) that de novo firms in transition economies have become more like privatized firms; and also (iii) more like firms in developed market economies with regard to how their characteristics relate to the structure of financing for fixed investment.

Restructuring in Firms

Firms are asked about a number of restructuring activities that are typically associated with innovation and knowledge absorption in the BEEPS surveys. They are:

- Developing a major new product line or service in the preceding three years.
- Upgrading an existing product line or service in the preceding three years.
- Obtaining a new product licensing agreement in the preceding three years.
- Obtaining a new quality accreditation (such as ISO 9000) in the preceding three years.
- Discontinuing at least one product line in the preceding three years.

The first two measures—developing a new product line or service and upgrading an existing product line—are thought of as indicators

of deep restructuring. But discontinuing a product line can also be associated with deep restructuring: reorienting product lines often involves simultaneous exits from some markets and entries into others. The proportion of firms developing a major new product or service line is 10 percentage points higher in the EU8 and 15 percentage points higher in the poorer transition country groups than in the developed market economies in 2005 (table 3.9). This is because the proportion of micro firms, i.e., those employing 1-9 workers, in the developed market economies is much higher: 46 percent in West Germany and 56 percent in the cohesion countries, compared with 25–28 percent in the CIS countries (see figure 4.5). And smaller firms, because they have fewer products and product lines, innovate less. The difference among the country groups is more modest for upgrading and negligible for discontinuing product lines. This is consistent with a pattern of catching up and converging to the scale of restructuring in developed market economies: developing a new product or service line can also be expected to decline as the size distribution of firms moves toward that in developed market economies.

The percentage of firms involved in all three measures of restructuring has an inverted U shape over time—lower in 1999, higher in 2002, and lower again in 2005 (table 3.9). Except for the EU8, the level in 2005 is higher than in 1999. Regression analysis on the three years of data, controlling for firm size, sector ownership, and location and competition confirmed intensified restructuring during 1999–2002 compared with 1996–99 in all transition country groups. It also confirmed decelerating restructuring during 2002–05 compared with 1999–2002 in the EU8 and Southeastern Europe but, depending on the index of restructuring chosen, either a decline or no significant change in the middle income and low income CIS. This was the case when the index of restructuring was a composite of

TABLE 3.9
Deep Restructuring, 1999–2005

	Percentage of firms reporting that they								
	Developed new product or service			Upgraded existing product or service			Discontinued a product line or service		
	1999	2002	2004/05	1999	2002	2004/05	1999	2002	2004/05
West Germany	—	—	21	—	—	53	—	—	15
Cohesion	—	—	27	—	—	36	—	—	15
EU8	33	35	31	45	50	47	17	22	17
Southeastern Europe	23	44	36	39	56	54	7	15	15
Middle income CIS	33	41	38	36	53	56	16	21	15
Low income CIS	24	36	38	24	47	45	13	23	15

Source: Mitra, Muravyev, and Schaffer 2008.

— indicates that data are unavailable.

development of a new product or service and upgrade of an existing product or service, as well as when the index was the development of a new product or service. Finally, the regression analysis found that even where there was a deceleration in restructuring activity during 2002–05, it was smaller than the acceleration that had preceded it during 1999–2002. Hence, restructuring during 2002–05 continued at a higher level than during 1996–1999.⁶

One explanation for the patterns observed in developing, upgrading, or discontinuing a product or service might be that countries saw a burst of restructuring in the course of recovery from the nadir of the transitional recession in 1998 for the CIS and from the end of the Balkans wars for the Southeastern European countries. Restructuring then either remained flat or fell back during 2002–05, but to levels still higher than before 1999.

Even with these explanations, the common timing of the restructuring peak in 2002 across all country groups is a surprise. The expectation was that the early reforming countries would have peaked earlier than those less advanced in the transition. But the example of new product development illustrates that the CIS was restructuring in 2002–05 at the same elevated level as in 1999–2002. To that extent, it had not fallen back from a peak, unlike the EU8 and Southeastern European countries. This is broadly consistent with a convergence story.

What Determined Restructuring?

The data from the 2005 BEEPS for developed market and transition economies were used to examine how much deep restructuring activity in firms is associated with certain key elements of the business environment and firm characteristics: competition (number of competitors, firm-reported price elasticity of demand, and various sources of pressure on firms to restructure), finance (access to a bank loan, or more generally to external finance), ownership category (de novo, privatized, or state-owned, whether majority domestic or foreign owned), size (number of employees), location (whether or not in big cities), and export orientation. The results are as follows.⁷

Larger firms undertake more restructuring in developed market economies and all transition country groups. The explanation, as previously noted, is that larger firms have more products and product lines and therefore more opportunities for restructuring.

De novo firms are most active in restructuring and state-owned firms significantly less so in all transition country groups, with privatized firms in between. But the differences are not huge.

Exporters engage in more deep restructuring than nonexporting firms in all transition country groups and in the cohesion countries. There is a robust association in the transition countries between various measures of access to international knowledge—such as whether or not the firm is an exporter, the percentage of sales exported, the percentage of sales to multinational corporations, and whether the firm is a joint venture with a multinational corporation—and deep restructuring activities in firms.⁸

Firms in big cities restructure more than those elsewhere, but only in the CIS countries, likely reflecting incomplete spatial integration in countries less advanced in the transition.

Pressures to innovate influence deep restructuring by firms. But the sources of pressure vary systematically across country groups. Competitive pressure from domestic competitors is a spur to deep restructuring in West Germany and the cohesion countries. It generally has no such effect in the transition economies, where the pressure comes exclusively either from foreign competition or—in all transition country groups—from customers. This is consistent with the view that transition economies are followers: in the developed market economies domestic competition is perceived as more of a competitive threat than in the less developed transition economies. But as noted earlier, domestic competition grows with progress in transition.

The impact of firm-reported price elasticity of demand on deep restructuring is a priori ambiguous. Highly elastic demand corresponds to a very competitive market structure and, if competition leads to restructuring, should lead to a positive correlation between elastic demand and restructuring. But inelastic demand could be brought about through temporary monopoly power resulting from successful innovation, or the profits from monopoly could finance restructuring. Analysis of the BEEPS data shows that the latter situation predominates: less elastic demand is associated with more restructuring in both developed market and transition economies.

Competition, measured by the number of competitors a firm faces in the market for its product or service line, has no significant impact on deep restructuring. This might reflect the fact that the transition economies have become more like market economies. In the latter, it is more likely that restructuring activities shape market structure, just as market structure affects restructuring.⁹ In such a situation, the absence of market power could lead firms to undertake fewer activities associated with innovation and knowledge absorption since the resulting benefits could be competed away by free entry. But less restructuring could itself reduce a firm's market power. Such reverse causality would underestimate the measured influence of the num-

ber of competitors on restructuring and this is consistent with the result observed in the BEEPS data. Thus the lack of impact of market structure on restructuring is consistent with its convergence to that prevailing in a market economy.

Both complete lack of access to external finance as well as partial access to external finance, represented by the unavailability of a bank loan, are associated with less restructuring. The quantitative impact of the absence of a bank loan on restructuring is broadly similar for the transition countries and the cohesion countries. Finance clearly enables the restructuring necessary for productivity growth within firms.

Measures of human capital, such as the share of university-educated workers in the firm's labor force or the existence of a training program provided by the firm, are positively associated with deep restructuring as well.

The analysis shows that competition and finance as well as openness are important correlates of restructuring. Human capital is significantly associated with restructuring as well. There are many of the attributes of the business environment that were identified in Chapter 2 as enabling productivity growth.

Endnotes

1. EBRD (2005), World Bank (2005d).
2. The surveys in 2005 for the transition countries and for West Germany and the cohesion countries in 2004/05, together covered over 12,000 firms.
3. World Bank (2006a) analyzes corruption in the transition economies based on the three rounds of the BEEPS and the 2004/2005 round in West Germany and the cohesion countries. It finds broad progress between 1999 and 2005, while noting that corruption in the transition countries is generally worse than in Western Europe.
4. The summary in this paragraph is taken from EBRD (2005).
5. The 1999 BEEPS does not separately identify bank financing from state banks. So to ensure consistency across surveys, bank financing here includes state banks. But bank financing from state banks was small in 2002 and 2005. The state financing that is separately identified in the analysis is nonbank financing, such as grants and subsidies.
6. Different composite indexes used to measure restructuring are (1) the average of new product and upgrade (the two-indicator deep restructuring index) and (2) the average of new product and upgrade, new licensing, and new accreditation (the four-indicator deep restructuring index). Restructuring activity does not show a significant decline after 2002 in the CIS groups if the two-indicator deep-restructuring index is used to measure it, or if only new product development is used.

7. The measure of deep restructuring used in this analysis is a composite of the following measures: (i) developing a new product/service line, (ii) upgrading an existing product/service line, (iii) obtaining a new product licensing agreement, and (iv) obtaining a new quality accreditation. Other measures of restructuring yield similar results.
8. World Bank (2008b).
9. Carlin, Schaffer, and Seabright (2005), using the BEEPS 1999 dataset, found that there was an effect from competition in CIS countries, where market structure had not yet adjusted to that typical of a market economy, but not in Central and Eastern European countries, where the authors hypothesized that it had. The analysis reported here is based on the BEEPS data from 2005, when market structure in the CIS could be expected to have adjusted as well, just as it had earlier in Central and Eastern Europe. In that case there would be no effect in any of the country groups, which is the result reported in the chapter.

PART II

INCLUSION

The Evolution of Employment

Despite the substantial poverty reduction between 1998-99 and 2005-06, many transition countries have failed to create visible and lasting employment for a large swath of the population (figure 1.2). Among advanced reformers, such as Slovak Republic and Poland, the limited use of labor is reflected in unemployment rates, which stood at 13–14 percent of the labor force in 2006. In Hungary it is reflected in declining labor force participation, as many workers have given up their job search and left the labor force, rather than in the unemployment rate, which in 2006 was a (relatively) low 7.5 percent. In the EU8 countries the long-term unemployment rate—the proportion of unemployed without a job for more than one year—ranged from 36 percent in Latvia to 56 percent in Poland, and to an exceptionally high 76 percent in the Slovak Republic in 2006.¹ This was higher than in the cohesion countries, where it ranged from 22 percent in Spain to 54 percent in Portugal. Among the EU8, however, long-term joblessness between 2002 and 2006 fell in the Baltic states, markedly in 2006, and in Slovenia, but rose in the Czech Republic, Hungary, Poland, and the Slovak Republic. In the Southeastern European

This chapter is based on World Bank (2005b) and Mitra, Muravyev, and Schaffer (2008).

countries long-term unemployment in 2006 was 56 percent in Bulgaria and 58 percent in Romania, but 79 percent in Serbia and 92 percent in Macedonia.²

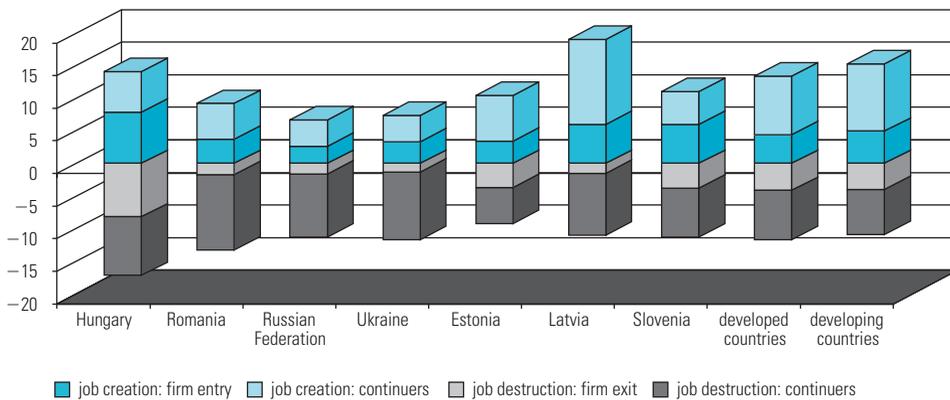
Employment rates tend to be higher in the CIS than in Eastern Europe (figure 1.2). This is in part because open unemployment is less affordable without a strong social safety net. However, this trend is also consistent with having a significant part of the workforce mired in low productivity jobs in unstructured enterprises or in subsistence agriculture, especially in the low income countries. Notwithstanding the absence of strong safety nets, long-term unemployment among the unemployed is also high in the low income CIS countries. In Armenia 40 percent had been unemployed for a year in 2006, while in the Kyrgyz Republic the figure was 43 percent in 2006. The share of self-employment in total employment has grown, ranging from 20 percent in the EU8 and Southeastern Europe and 17 percent in the middle income CIS countries to 50 percent in the low income CIS countries. The self-employed comprise both aspiring entrepreneurs and those for whom it is the last resort in the absence of regular and well-paying jobs, as in subsistence agriculture. The poor are overrepresented among the self-employed because many of the working poor are self-employed, especially in the low income CIS countries.

Entry, Exit, and Employment

Observed labor market outcomes reflect different stages of the transition and different job dynamics. The sum of job creation³ and job destruction⁴ rates increased dramatically, from less than 10 percent of the labor force in the late 1980s to more than 20–25 percent in the 1990s. The average rates of job reallocation⁵ are comparable to those in developed countries but lag somewhat behind those in other developing countries (figure 4.1).

Countries experienced a surge in job destruction in manufacturing at the beginning of the transition as a result of downsizing and liquidation in enterprises made unviable by price and trade liberalization and hardening budget constraints. Job creation was more variable across countries (figure 4.2). In Hungary it caught up with job destruction by 1996–97 and again in 1999–2000. In Romania it surpassed job destruction briefly in 1995–96 before a macroeconomic crisis and a second transitional recession occurred, followed by soaring job destruction and a second catch-up in job creation in 2000–01. And in Ukraine it exceeded job destruction in manufacturing only in 1999–2000. The continued dominance of job destruction over job

FIGURE 4.1
Large Job Flows in Transition Economies



Source: Bartelsman and Scarpetta 2007; Brown and Earle 2007.

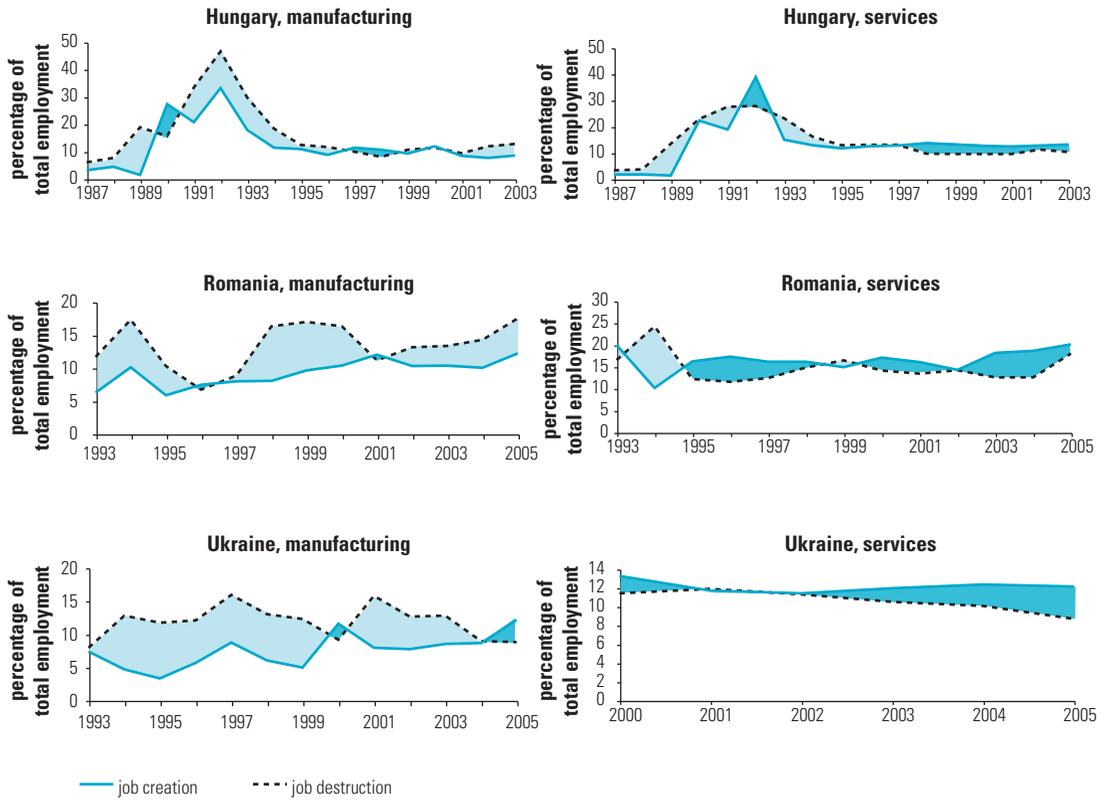
Note: Data are for 1997–2003 for Estonia, 1989–2003 for Hungary, 1994–99 for Latvia, 1992–2005 for Romania, 1991–2004 for the Russian Federation, 1993–2000 for Slovenia, and 1992–2005 for Ukraine. For developed countries data are for 1978–99 for West Germany, 1989–97 for the United States, 1988–93 for Italy, 1987–98 for the United Kingdom, 1984–94 for Portugal, 1989–98 for Finland, 1991–96 for France, 1985–97 for Canada, 1982–94 for Denmark, and 1994–97 for the Netherlands. For developing countries data are for 1997–2001 for Argentina, 1996–2001 for Brazil, 1979–1999 for Chile, 1982–1998 for Columbia, 1990–95 for Indonesia, 1982–93 for Korea, 1987–2000 for Mexico, 1986–91 for Taiwan, China, and 1995–2000 for Venezuela.

creation in manufacturing in all three countries reflected the downsizing of overly large industrial sectors.

The experience in services was quite different. Job destruction initially soared in Hungary but was overtaken by 1997–98. In Romania job creation, once it had caught up with job destruction in 1994–95, stayed ahead of it in all but one year. And in Ukraine, where data are available only from 1999–2000, job creation stayed ahead of job destruction. This reflects the expansion of services, which had been repressed in the transition economies.

As noted in Chapter 2, firm entry and exit as a proportion of the total number of firms was substantially larger in early reforming transition economies than elsewhere. An essential channel for job creation in transition economies has been the entry of new firms. In pre-transition Russia firm turnover (entry and exit of firms) accounted for less than 20 percent of job turnover. During the transition the contribution of firm turnover to job flows increased greatly. The role of new firms in job creation in the early years of the transition ranged from 70–90 percent in Hungary and Romania, 60–80 percent in Slovenia and Ukraine, and 50–70 percent in the Russian Federation. As the transition unfolded, the share of new firms in job creation fell to around 20–25 percent in Hungary, Romania, and Slovenia, implying that the bulk of job creation in the later years occurred in continuing firms. But the contribution of new firms to job creation in the Russian Federation

FIGURE 4.2
Job Creation and Job Destruction in Manufacturing and Services



Source: Brown and Earle 2007.

and Ukraine increased somewhat when the entry of firms in both countries rose following the 1998 financial crisis in Russia. Over the period since the beginning of transition, firm entry accounted for 38 percent of job creation, higher than that in market economies, where it was slightly more than 30 percent.

Downsizing by continuing firms was more important than firm exit in job destruction in all countries. Its share in Romania, the Russian Federation, and Ukraine was around 88 percent, and around 66 percent in Estonia, Hungary, and Slovenia. The share of firm exit in job destruction was 23 percent, lower than the 30 percent or so in market economies. The role of firm creation and firm destruction in the evolution of employment highlights the importance of the demand side of labor market outcomes.

Thus, to summarize, net entry—the entry of new firms and exit of obsolete firms—has been a key driver of productivity growth in the transition countries (Chapter 2), while the entry of new firms has been important for employment creation as well. And while the

restructuring of existing firms has contributed to productivity growth, it has on average led to job destruction, suggesting defensive restructuring. As transition economies come to resemble market economies, the role of existing firms in productivity growth and job creation likely become more important than firm entry. And firm exit will be more important than downsizing in job destruction.

Labor Market Outcomes: Converging?

What do the three rounds of the BEEPS surveys show about job creation, destruction, reallocation, and growth (table 4.1 and figure 4.3)? First, job allocation, which is the sum of the job creation rate and the job destruction rate, did not vary much across time or across groups of transition economies. At around 20 percent, it was no higher in the transition economies than in the cohesion countries.

Second, job destruction rates were higher at earlier stages of the transition and either stayed broadly the same or fell, while job creation

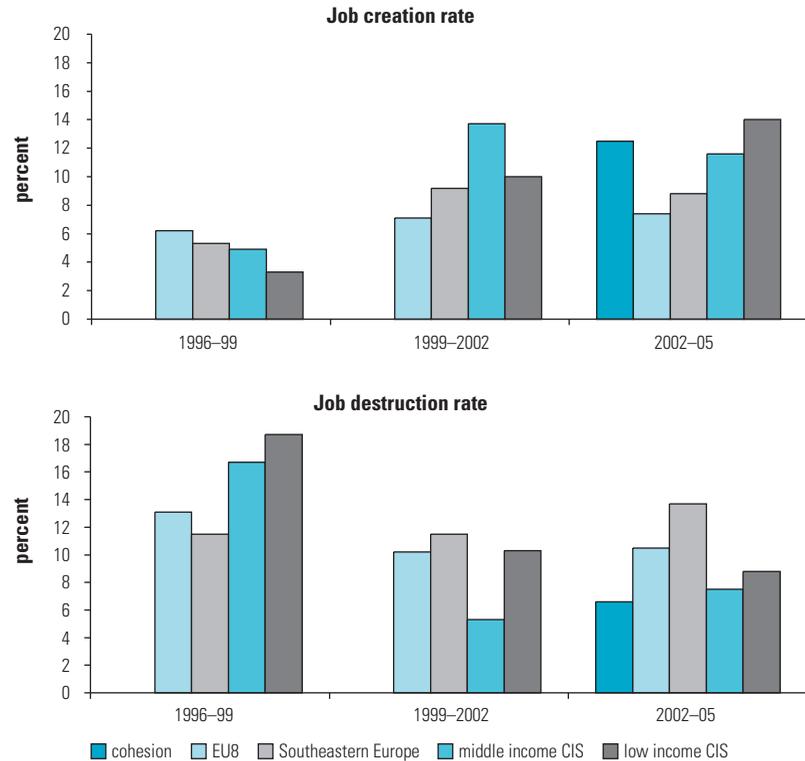
TABLE 4.1
Job Reallocation, Job Creation, Job Destruction, and Job Growth, by Country Group

Country group	Job reallocation rate	Job creation rate	Job destruction rate	Job growth rate
Developed market economies (2004–05)				
West Germany	0.138	0.060	0.078	-0.018
Cohesion	0.192	0.125	0.066	0.059
Transition economies (2005)				
EU8	0.180	0.074	0.105	-0.031
Southeastern Europe	0.224	0.088	0.137	-0.049
Middle income CIS	0.191	0.116	0.075	0.041
Low income CIS	0.229	0.140	0.088	0.052
Transition economies (2002)				
EU8	0.173	0.071	0.102	-0.030
Southeastern Europe	0.207	0.092	0.115	-0.023
Middle income CIS	0.190	0.137	0.053	0.084
Low income CIS	0.203	0.100	0.103	-0.003
Transition economies (1999)				
EU8	0.193	0.062	0.131	-0.068
Southeastern Europe	0.167	0.053	0.115	-0.062
Middle income CIS	0.216	0.049	0.167	-0.118
Low income CIS	0.221	0.033	0.187	-0.154

Source: Mitra, Muravyev, and Schaffer 2008.

Note: The job creation rate is the number of jobs created during a year divided by average employment during the year. The job destruction rate is the number of jobs destroyed during the year divided by the average employment during the year. The job reallocation rate is the sum of the job creation rate and the job destruction rate. The job growth rate is the job creation rate less the job destruction rate.

FIGURE 4.3

Job Creation and Job Destruction, by Country Group

Source: Mitra, Muravyev, and Schaffer 2008.

rates were lower at earlier stages of the transition and either stayed broadly the same or increased with the transition. Thus, aggregate job growth, which is the difference between job creation and job destruction, was negative during 1996–99, but less so in the EU8 and Southeastern European countries, where job creation was higher and job destruction much lower than in the CIS countries, many still mired in the transitional recession. The situation reversed in 2002–05. Job growth continued to decline in the EU8 and Southeastern European countries, albeit less so than before because of some improvement in job creation and broadly unchanged job destruction. But job growth was faster in the CIS countries because of a marked acceleration in job creation, together with a rapid deceleration in job destruction.

Third, job creation in the CIS economies was considerably higher and job destruction considerably lower than in the EU8 and Southeastern European countries. Job creation was likewise higher and job destruction lower in the cohesion countries than in the EU8 and Southeastern European countries in 2002–05.

Fourth, aggregate job growth was consistently the highest in de novo firms, although it was modestly negative in 1996–99 before

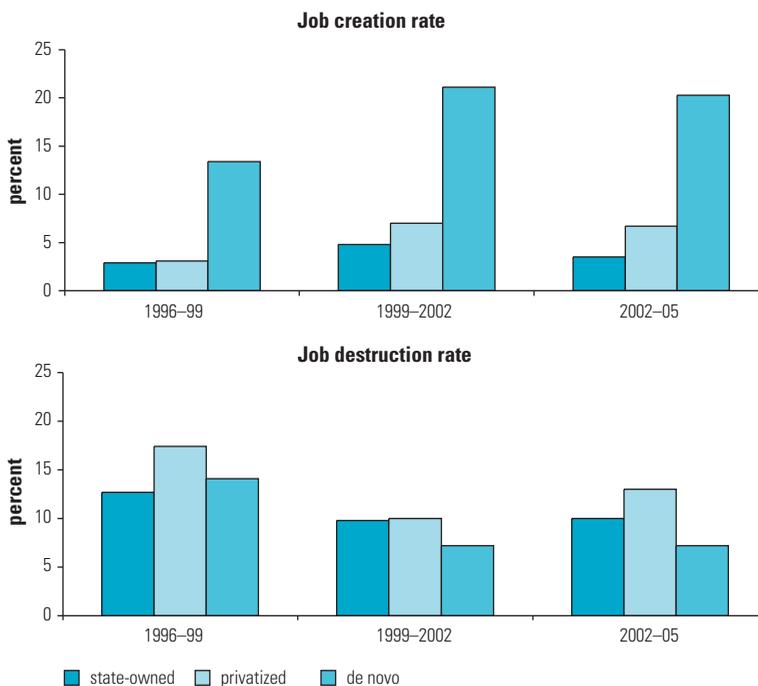
turning strongly positive in the later years (table 4.2 and figure 4.4). Indeed, rates of aggregate job growth in de novo firms were 15–20 percentage points higher than in state-owned and privatized firms. The pattern of positive net job growth in new firms and downsizing in traditional firms is found in all country groups a decade-and-a-half since the start of the transition.

What accounts for the comparatively weak job growth in the EU8 and Southeastern European countries? Indeed, both the cohesion countries and the poorer transition country groups have higher job creation and lower job destruction rates than the EU8 and Southeastern European countries during 2002–05.

Employment Growth in the EU8 and the Cohesion Countries

Growth in aggregate firm employment was substantially lower in the EU8 than in the cohesion countries during 2002–05.⁶ Differences in employment growth between country groups are attributed to differences in three sets of factors: (i) sectoral composition of employment, whether in construction, manufacturing, transport, trade, real estate,

FIGURE 4.4
Job Creation and Job Destruction in the Transition Economies, by Ownership



Source: Mitra, Muravyev, and Schaffer 2008.

TABLE 4.2

Job Reallocation, Job Creation, Job Destruction, and Job Growth in the Transition Economies, by Ownership

Ownership	Job reallocation rate	Job creation rate	Job destruction rate	Job growth rate	Observations
Transition economies (2005)					
State	0.135	0.035	0.100	-0.066	756
Privatized	0.198	0.067	0.130	-0.063	1,237
De novo	0.275	0.203	0.072	0.132	6,738
Transition economies (2002)					
State	0.146	0.048	0.098	-0.050	820
Privatized	0.171	0.070	0.100	-0.030	915
De novo	0.283	0.211	0.072	0.140	4,086
Transition economies (1999)					
State	0.156	0.029	0.127	-0.098	530
Privatized	0.205	0.031	0.174	-0.144	840
De Novo	0.275	0.134	0.141	-0.007	2,182

Source: Mitra, Muravyev, and Schaffer 2008.

hotels and restaurants; (ii) ownership of firms—whether de novo, state-owned, or privatized; and (iii) firm size. De novo firms grew rapidly in both groups of countries, leading to growth in employment in the EU8 group more than one-and-a-half times higher than in the cohesion countries. This was helped by much faster growth in manufacturing in the EU8 group, as well as a higher share of employment in the EU8 in trade, which grew rapidly in both groups. But the faster growth of employment in rapidly growing de novo firms in the EU8 was more than offset by substantial downsizing in state-owned and privatized firms, especially the larger privatized ones. So, ownership and, to a lesser extent, size accounted for shrinking job growth in the EU8 compared with the cohesion countries. The stronger job growth in de novo firms in the EU8 may be explained by market niches that such firms could continue to fill in the transition countries. The downsizing in state-owned and privatized firms in the EU8 countries is a phenomenon with no analogue in the cohesion countries.⁷ Together these trends help account for the relative stagnation of employment growth in the EU8 relative to the cohesion countries over 2002–05.

Employment Growth in the EU8 and the Southeastern European Countries

Growth in aggregate firm employment in the EU8 was substantially higher than in the Southeastern European countries during 2002–05. De novo firms in both groups grew very rapidly, but their contribu-

tion to employment growth in Southeastern European countries was more than one-and-a-half times that in the EU8 countries. This was helped by much faster growth in manufacturing and, to a lesser extent, a higher share of employment in manufacturing in Southeastern European countries. But the rapid growth of employment in *de novo* firms was more than offset by vigorous downsizing in state-owned and privatized firms, more than twice as large in Southeastern Europe as in the EU8. Hence, the downsizing was predominantly due to ownership, with size playing virtually no role.

This is a catching up story. The new private sector boom is farther advanced but slowing in the EU8 countries, because there are presumably fewer niches for new firms to occupy. This is on account of the EU8's greater progress in the transition in relation to the Southeastern European countries. And the downsizing of state-owned and privatized firms is farther advanced in the EU8 but slowing there because progressively less of the transition legacy is left to be extinguished.

Employment Growth in the Southeastern European and the CIS countries

Growth of aggregate firm employment in Southeastern Europe was substantially lower than in the CIS countries during 2002–05.⁸ *De novo* firms in both country groups contributed enormously to employment growth—and in broadly comparable amounts. But whereas this was more than completely offset by downsizing one-and-a-half times larger in state-owned and privatized firms in the Southeastern European countries, it was only partially offset by downsizing that was two-thirds as large in the CIS countries.

This suggests that the catching up story does not quite apply to the CIS country groups. Since the Southeastern European countries have progressed more in the transition than the CIS countries, catching up would have involved stronger job growth in *de novo* firms in the CIS countries (more market niches available) and more vigorous downsizing in state-owned and privatized firms in the CIS countries (more of the transition legacy to be extinguished). *De novo* firms have indeed been generating jobs very strongly. Hence the lack of catch-up is more evident in the weaker than expected downsizing in state-owned and privatized firms.

The absence of catch-up is likely due to inadequate competition. It will be recollected from Chapter 3 that the magnitude of firm entry and exit was, in general, substantially lower in the Russian Federation and Ukraine than in Hungary and Romania. The importance of new firms in job creation was also generally lower in the Russian Fed-

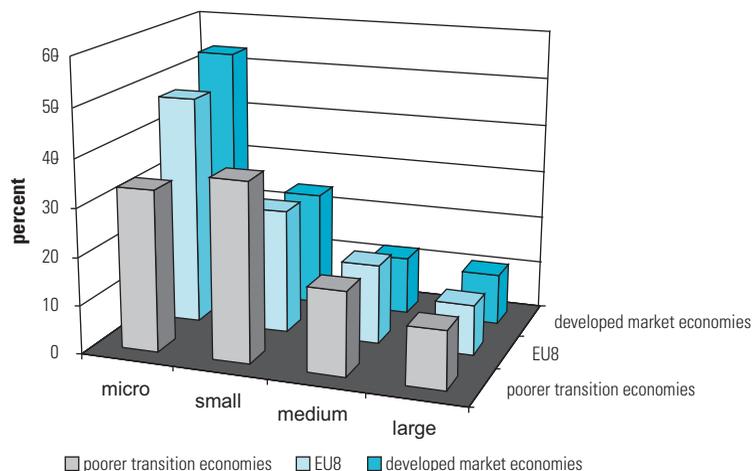
eration and Ukraine than in Hungary and Romania. Chapter 3 also showed that firms in the CIS countries report pressure from foreign competitors as being notably less of a spur to restructuring than do their counterparts in the EU8 and Southeastern European country groups and developed market economies. They also report pressure from domestic competitors, although stronger than from foreign competitors, as being less of a spur to restructuring than do their counterparts.

Stronger competition in the CIS countries would facilitate convergence but also accelerate downsizing. Severance payments, retraining programs, and safety nets should be used to assist displaced workers.⁹

The Changing Size Distribution of Firms

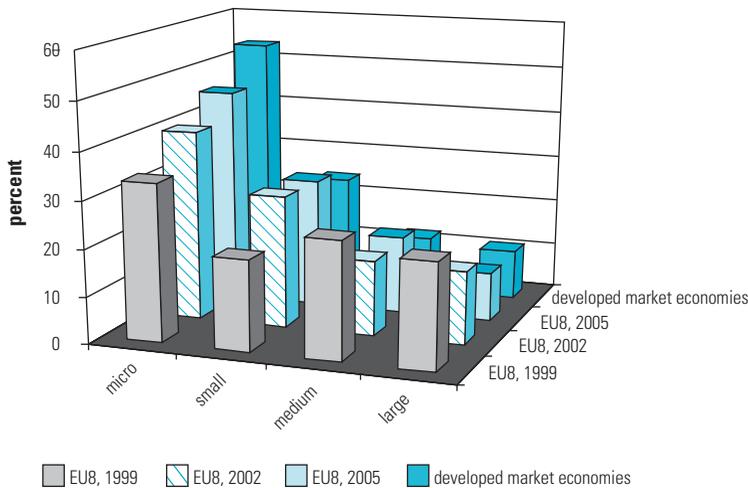
The transition would have been expected to have brought about the growth of small firms because planned economies had so few of them. This expectation is confirmed by figure 4.5, which shows the distribution of firm size in 2004–2005 in the developed market economies (West Germany and the cohesion countries), the EU8 members, and the poorer transition economies (Southeastern Europe and the middle and low income CIS) by four size categories: micro (1–9 employees), small (10–49), medium (50–199), and large (200+). Small and micro firms are most prevalent in the developed market economies of the European Union and least prevalent in the poorer transition economies, with the EU8 in between. The size distribution of firms in

FIGURE 4.5
Size Distribution of Firms in 2004–05
(Percentage of firms)



Source: Mitra, Muravyev, and Schaffer 2008.

FIGURE 4.6
Evolution of Size Distribution of Firms in EU8 Countries
 (Percentage of firms)



Source: Mitra, Muravyev, and Schaffer 2008.

the EU8 moves steadily toward the developed market economy patterns of large numbers of small and micro firms over the three rounds of the BEEPS and, by 2005, is much closer to that in West Germany and the cohesion countries (figure 4.6).

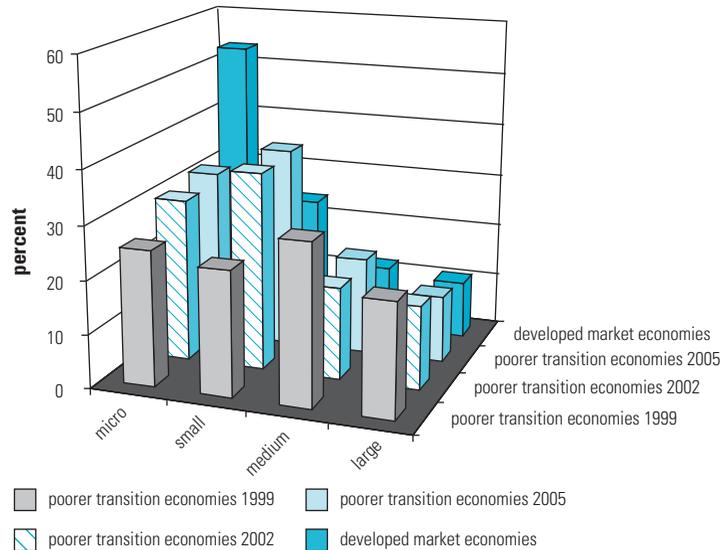
The evolution is similar in the poorer transition economies, but because these countries started in 1999 from a position of even fewer small firms, the size distribution in 2005 is still a considerable distance from the market economy benchmark, even with the growth of small firms between 1999 and 2005 (figure 4.7).

The change in the size distribution of firms brought about by the growth of smaller, typically new, firms and the downsizing of larger state-owned and privatized firms implies that changes in employment in the average firm are not necessarily the same as changes in employment generated by aggregating all firms. The analysis presented so far has focused on aggregate employment. Differences between average and aggregate arise because new firms, which are proliferating and growing rapidly, are typically smaller and thus generate less employment in the aggregate. State-owned and privatized firms, which are fewer in number and shedding labor, are typically larger and thus contribute more to shrinking employment in the aggregate. This implies that the growth in average firm employment is much higher than in aggregate firm employment in the transition countries, where the size distribution is more skewed toward medium and larger firms in relation to that gap in the cohesion countries. But

FIGURE 4.7

Evolution of Firm Size Distribution in Poorer Transition Economies

(Percentage of firms)



Source: Mitra, Muravyev, and Schaffer 2008.

comparisons of average firm employment growth by subgroups of countries yields a picture broadly consistent with that presented here for aggregate firm employment.¹⁰

Convergence

In summary, the evolution of employment reflects patterns of convergence similar to those for the business environment. Employment depends on, inter alia, firm ownership (state-owned, privatized, de novo), the sectoral composition of the economy and size. The proportion of de novo firms has been rising and that of state-owned and privatized firms has been falling in all transition country groups over 1999–2005. The size distribution of firms in the transition countries, which was dominated by medium firms (50 to 99 employees) and large firms (200 employees or more), is also converging toward that in West Germany and the cohesion countries, which have many more micro firms (1–9 employees) and small firms (10–49 employees). Employment in small firms is increasing relative to employment in large firms. The process has advanced the most in the EU8, where the size distribution of firms is closest to that in West Germany and the cohesion countries. It has moved the least in the CIS countries which started with fewer smaller firms and, despite their growth, are some distance from the developed market economies.¹¹

Shortages of Skills¹²

Labor market outcomes during much of the transition have been explained by referring to the balance between job creation in *de novo* firms and downsizing in state-owned and privatized firms. Since 2005, however, skills shortages have emerged as a constraint to expanding employment, particularly in the new member states of the European Union.¹³ Employers in the Czech Republic, Hungary, Latvia, Lithuania, Poland, and Romania report lack of skilled workers as an important obstacle to business growth. Despite recent improvements, low employment rates and high unemployment coexist with an increase in job vacancy rates and rising labor demand. In Latvia and Lithuania vacancy rates in manufacturing have increased sharply. And in both countries, as well as in Poland, vacancy rates in construction have increased as well. Part of this is due to out-migration associated with the opening of labor markets in the EU15 countries. However, there is an excess supply of unskilled labor, particularly in Bulgaria, the Czech Republic, Hungary, and the Slovak Republic.¹⁴ So, many of the unemployed will not find jobs even if there is an increase in vacancies because they lack the necessary job skills. Making education systems more responsive to labor market needs and encouraging lifelong learning will be important to reduce unemployment and increase labor force participation. In these countries, the constraints to employment growth are shifting from legacy-of-transition factors to those that have to do with the requirements of competition in a globalizing world.

Endnotes

1. The figure for the Slovak Republic reflects high long term joblessness among the large Roma minority.
2. The figure for Serbia is for 2005.
3. Job creation is the increase in jobs during a year divided by average employment during the year.
4. Job destruction is the loss in jobs during a year divided by average employment during the year.
5. Job reallocation is the sum of job creation and job destruction rates during the year. Job growth is the job creation rate less the job destruction rate.
6. This section is based on Mitra, Muravyev, and Schaffer (2008), which presents the complete analysis.
7. The small number of state-owned and privatized firms in the cohesion country sample are taken out before making the comparison described in the text.

8. The middle-income CIS and low-income CIS groups are combined in this comparison for brevity. The substance of the argument is not qualitatively affected by doing so.
9. Social safety nets are discussed in Chapter 5.
10. The analysis of average firm employment growth is developed in Mitra, Muravyev, and Schaffer (2008).
11. The influence of changing sectoral composition on employment is explored in Mitra, Muravyev, and Schaffer (2008).
12. The discussion is based on World Bank (2007b), which contains a fuller account.
13. The new member states of the European Union refer to the EU8, Bulgaria, and Romania.
14. The difference between the percentage share of the employed with a particular educational attainment and the percentage share of the unemployed with the same educational attainment is taken as an indication of the mismatch in the labor market.

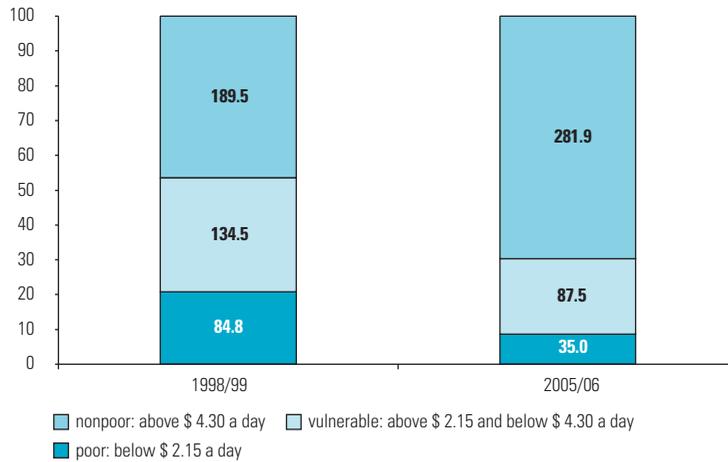
Poverty

Economic growth since the Russian Federation's financial crisis of 1998 has lifted many boats. It has moved 50 million people in the transition countries out of absolute poverty, defined as those with an income less than \$2.15 a day in purchasing power parities (figure 5.1). While nearly one in five people—or 85 million—lived in poverty around 1998/99, only one in twelve—or 35 million—did so around 2005/06. As a result, the poverty headcount—the proportion of the absolute poor in the population—ranged from 1.6 percent in the EU8, 2.9 percent in the middle income CIS, 5.8 percent in Southeastern Europe (SEE), and 38.6 percent in the low income CIS, using a poverty line of \$2.15 a day in purchasing power parities.¹

Most poverty reduction since 1998 has occurred in the middle income countries of the CIS, such as the Russian Federation and Ukraine, where growth has been particularly rapid. Inequality has fallen in the region as a whole, driven in part in the CIS by a reduction in wage arrears, which had been regressive in their incidence. The Gini coefficient of consumption inequality for the transition countries as a whole was 0.35 in 2006, considerably lower than in other middle income country regions such as East Asia and Latin America. While the groups at highest risk of poverty are the young, rural or secondary city dwellers, the unemployed, and the poorly educated, the majority of the poor are

This chapter is based on World Bank (2005a).

FIGURE 5.1
Poverty in Transition Countries, 1998/99–2005/06



Source: World Bank staff estimates based on ECA Household Surveys.

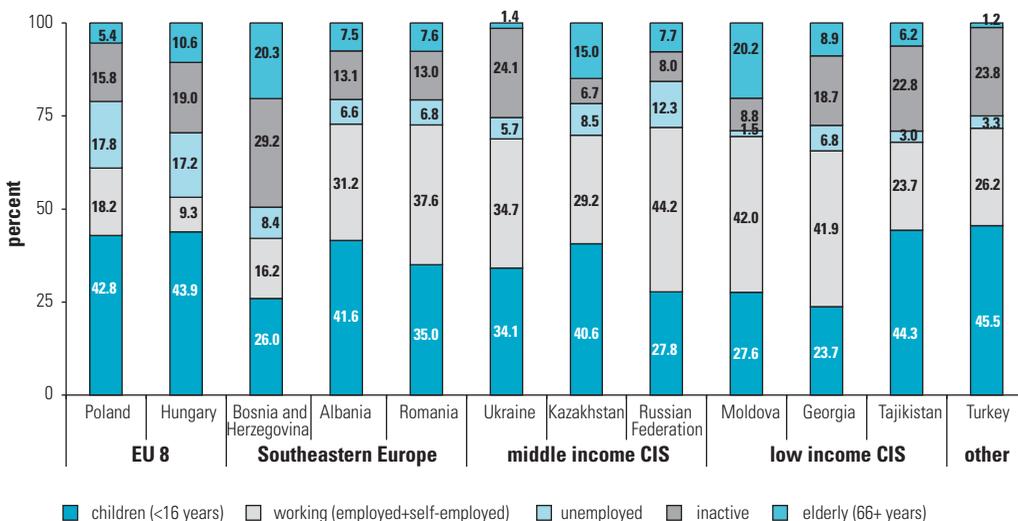
Note: In million persons and in percent to population. Poverty lines converted to local currencies using 2000 PPP.

made up of working adults, whether employed for wages or self-employed, together with children, often the children of working parents (figure 5.2).

Profile of the Poor

There are three main channels through which growth affects the

FIGURE 5.2
Composition of Poor Population, Selected Transition Countries: 2005/2006



Source: World Bank staff estimates using ECA Household Surveys Archive.

poor. The unemployed poor benefit directly from increased employment resulting from growing demand for their labor. The working poor gain from rising real wages or increased productivity of their self-employment. And growth can trickle down to the economically inactive poor through increased public and private transfers.

The labor market profiles of the poor, defined by employment status of the household head in four transition countries, one each from the four country groups—Poland (EU8), Romania (Southeastern Europe), the Russian Federation (middle income CIS), and Moldova (low income CIS)—show the following characteristics (table 5.1).

Labor force status. While the working poor are the majority of the poor everywhere, the poverty rate of the employed (the proportion of the employed that are poor) is below that of the unemployed (the proportion of the unemployed that are poor).² While the unemployed poor make up a small proportion of the poor, the poverty rate among the unemployed is not only above that of the employed but usually also above that of the inactive (those not in the labor force). The inactive poor are however a significant proportion of the poor in many countries.

Sector of employment. The poverty rate is the highest in agriculture and usually the lowest in services. Hence, the growth of the service sector can be expected to have different consequences depending on whether it is translated into an increase in employment or a rise in earnings. The former contributes strongly to poverty reduction. The latter, however, would have a minimal effect on poverty, since workers in the sector are typically above the poverty line. The poverty rate is lower in the public sector than in the private. But many more of the working poor are in the private sector.

Wages, Employment, and Distribution

The rapid increase in real wages and the comparatively muted gains in employment between 1998/99 and 2005/06 affected the income distribution in different degrees, with four main patterns.

First, real wages grew strongly during the post-1998 recovery and outpaced the growth of aggregate labor productivity (figure 5.3). This development needs to be seen, however, against the background of the prolonged decline in real wages during the transitional recession, particularly in the CIS. Looking ahead, the trend raises questions about sustainability. But the rise in average real wages did reduce poverty. The link between growth in real wages and poverty reduction is the strongest in the middle income CIS countries, where many of the poor are employed for wages. The link is weaker in the other

TABLE 5.1

**Poverty Profile by Sector and Type of Employment of the Household Head,
Selected Transition Countries, 2005/06**

Household head employment	Poland (2005)		Romania (2006)		Russian Federation (2006)		Moldova (2005)	
	Poverty rate	Share of poor	Poverty rate	Share of poor	Poverty rate	Share of poor	Poverty rate	Share of poor
Total	21.1	100.0	6.2	100.0	2.7	100.0	44.0	100.0
Labor force status								
Employed	21.3	71.1	6.1	56.5	2.4	80.1	44.5	71.8
Unemployed	54.7	5.9	17.7	9.4	10.9	3.9	52.3	0.3
Not in labor force	17.8	23.0	5.5	34.1	4.4	16.0	43.0	27.8
Public/private sector								
Public employee			1.5	13.6	2.4	13.8	32.9	16.2
Private employee			2.6	42.9	2.5	66.3	43.9	55.6
Employment type								
Employee	19.9	50.2	2.2	12.7	2.5	78.6	40.8	42.6
Self-employed/entrepreneur	25.7	21.0	12.2	43.9	1.2	1.5	51.3	29.3
Sector of employment								
Agriculture	35.3	19.7	12.2	37.8	5.4	12.0	55.9	42.1
Industry	23.2	17.7	3.2	9.8	1.3	8.4	36.2	10.9
Services	16.8	33.8	2.8	8.9	2.5	59.7	33.6	18.8

Source: World Bank staff estimates using data from ECA Household Surveys Archive.

Note: In Poland \$4.30 a day, at 2000 U.S. dollars in purchasing power parities, is used as a poverty line, for other countries in this table \$2.15, also at 2000 U.S. dollars in purchasing power parities, is used.

country regions—either because the working poor make up a smaller majority of the poor, as is to some extent true in the EU8 and South-eastern Europe, or because more of the working poor are self-employed, as in the lower income CIS countries.

Second, the growth of real wages was broad based, occurring across the income distribution in many countries. But there were differences in degree. In Poland mainly the well-off benefited. In the Russian Federation all groups benefited but the well-off did so disproportionately. In Moldova and Romania the gains were more proportionately distributed (figure 5.4).

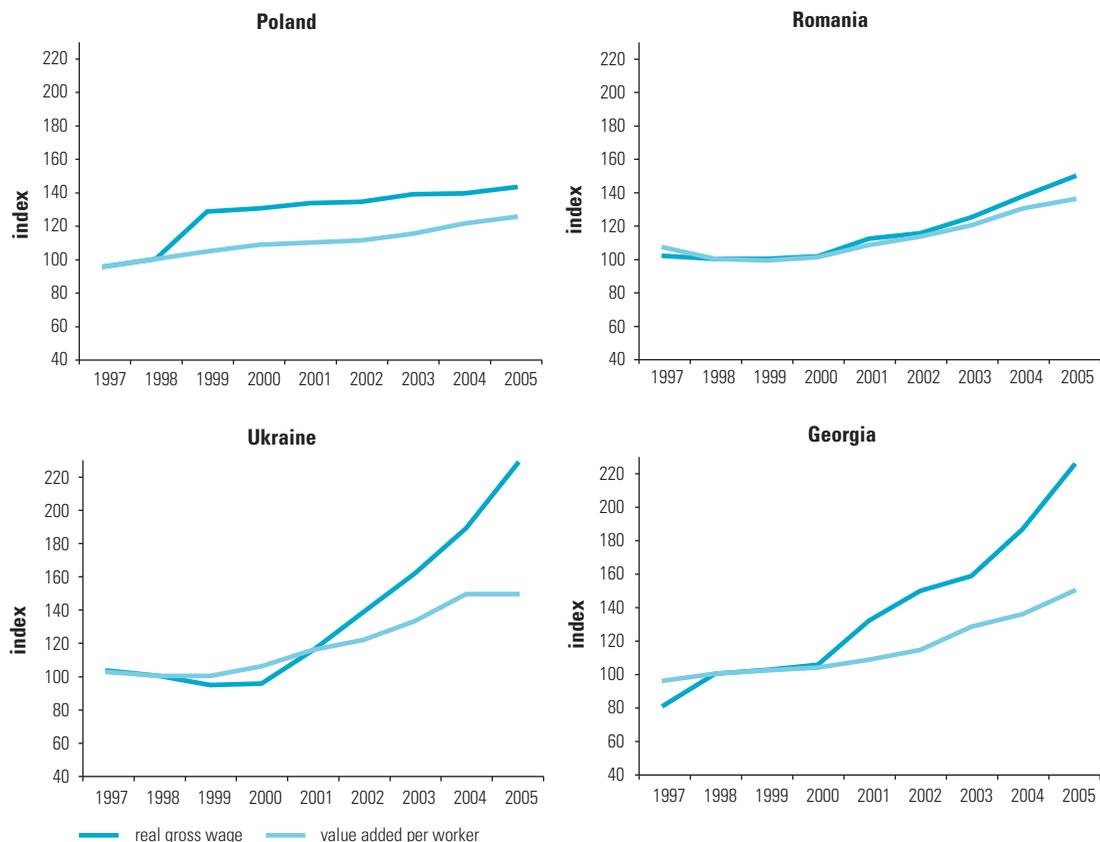
Third, stagnation in employment is evident, and growth in real wages outpaced that of employment (figure 5.5).

Fourth, the growth in employment has been uneven across the income distribution (figure 5.6). In Poland, where employment fell, all groups lost but the poor suffered disproportionately. In Romania there was virtually no change in any part of the income distribution, and the employment rate for the poor remained well below that of the rich. Employment increased noticeably in Moldova and the Russian Federation.³ All income groups benefited in the Russian Federation, with the poor gaining about as much as wealthier households. In Moldova, however, the employment rate rose considerably for the lowest deciles of the population and fell for the top deciles.

FIGURE 5.3

Wage Increases and Productivity Gains during the Economic Recovery

(Real wages and value added per worker in manufacturing in selected countries)



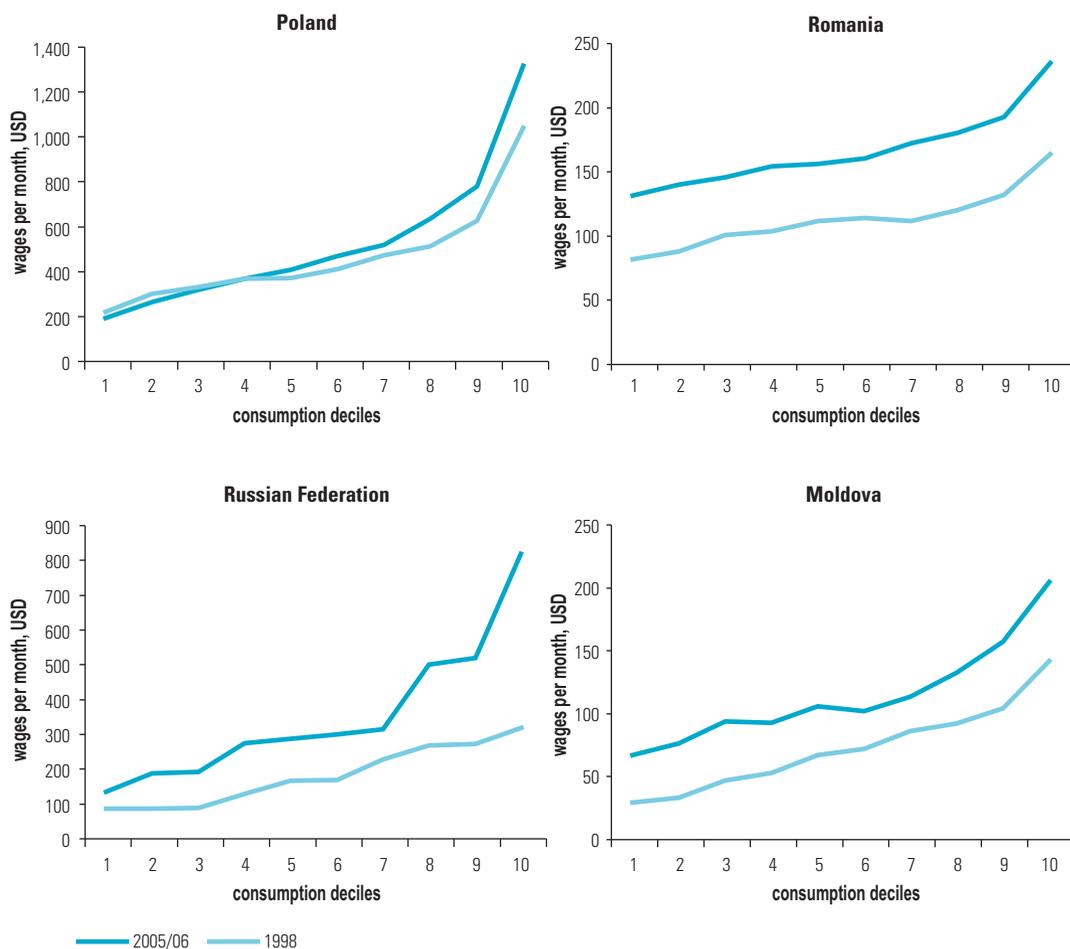
Source: World Bank staff estimates using data from ECA Household Survey Archives.

Even with broad-based increases in real wages since 1998, working adults, whether employed for wages or self-employed, and children, often the children of working parents, make up the majority of the poor (figure 5.2). Work therefore does not always protect people from poverty. This is because much employment, particularly in the region's poorest countries, is in low productivity occupations such as subsistence agriculture. Indeed, in 2002 nearly half of the poor in Moldova were employed in agriculture. For this reason, productivity growth will remain a dominant concern for policy makers. The observation applies especially to productivity growth in agriculture, discussed in Chapter 2, which is important for poverty reduction in the low income CIS countries.

The risk of becoming poor is substantially higher for the unemployed than for the employed. But the unemployed poor are a modest proportion of the poor, ranging from less than 0.3 percent in

FIGURE 5.4

Real Wage Gains in Southeastern Europe and the CIS



Source: World Bank staff estimates using data from ECA Household Survey Archives.

Note: Average monthly wages are in 2002 U.S. dollars, in purchasing power parities. For Russian Federation data are from 2006 income module Household Budget Survey, and the 2002 Russian Longitudinal Monitoring Survey.

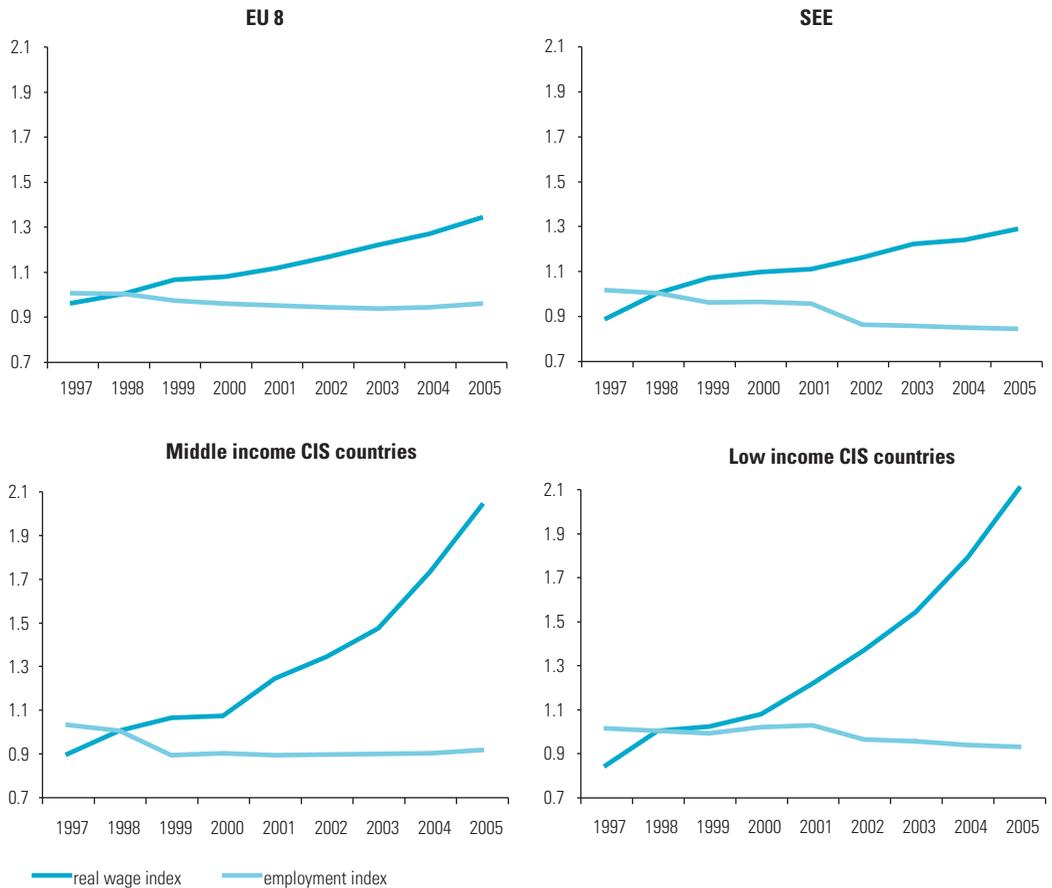
Moldova to 9.4 percent in Romania. And this is despite the fact that in low income CIS countries such as Armenia and the Kyrgyz Republic, where social safety nets are less generous, the proportion of the unemployed without a job for at least a year was 40 percent or more. This suggests that the unemployed retain an informal attachment to the labor market and have benefited from the bounce-back in real wages.

The inactive poor, i.e., those not in the labor force, make up an increasingly significant proportion of the poor in many countries, ranging from 16 percent in the Russian Federation to 34.1 percent in Romania. Furthermore, labor force participation rates are considerably lower than in the EU15 in all transition country groups except

FIGURE 5.5

Real Wage and Net Employment Growth in Transition Countries, 1997–2005

(Indexes, 1998 = 100)



Source: World Bank staff estimates using data from ECA Household Survey Archives.

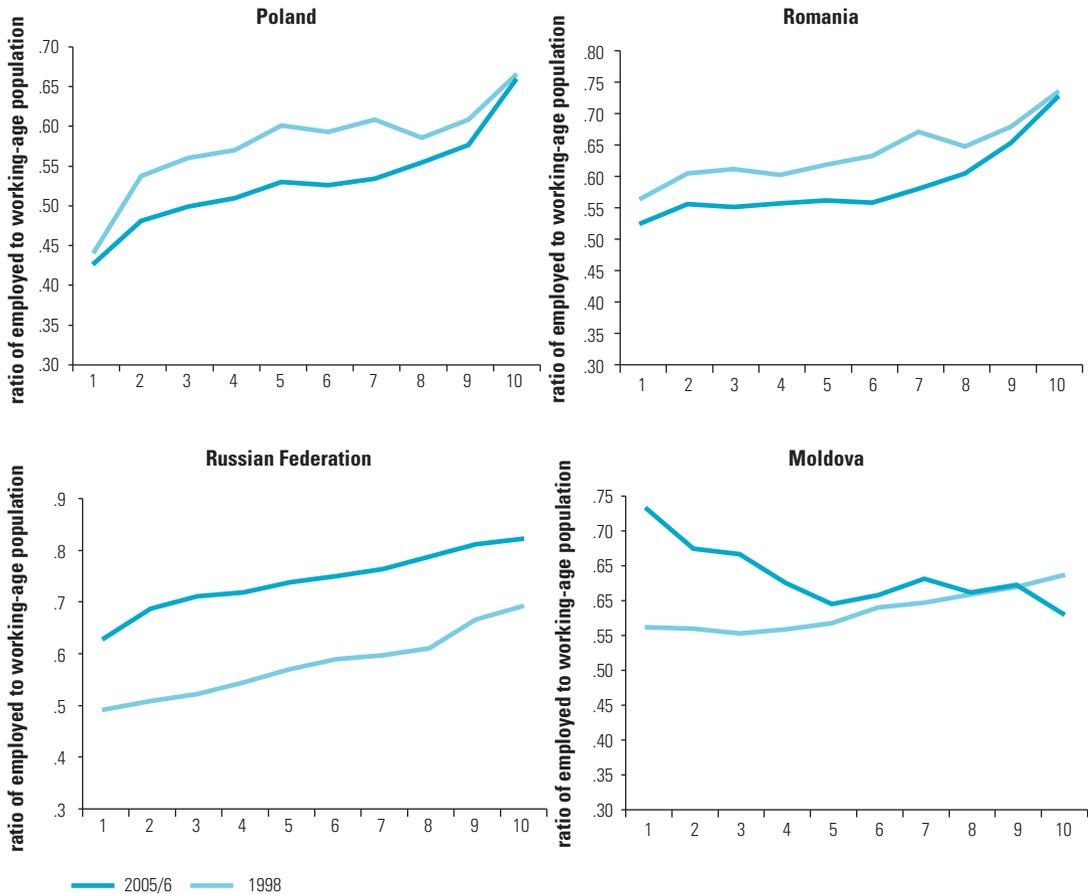
the middle income CIS.⁴ Together, these factors point to the emergence of an underclass dependent on public transfers.

Public Transfers

But the effects of growth on poverty reduction were not confined to the labor market. Social protection transfers to households increased in real per capita terms during 1998–2003, in line with the growth in fiscal revenues. These transfers, together with a reduction in pensions and other arrears, reduced poverty. Given the predominance of pensions in social protection benefits, poverty would have been significantly higher without those benefits, especially outside the low income CIS.

FIGURE 5.6

Changes in Employment Rate, 1998–2005/06, Selected Transition Countries

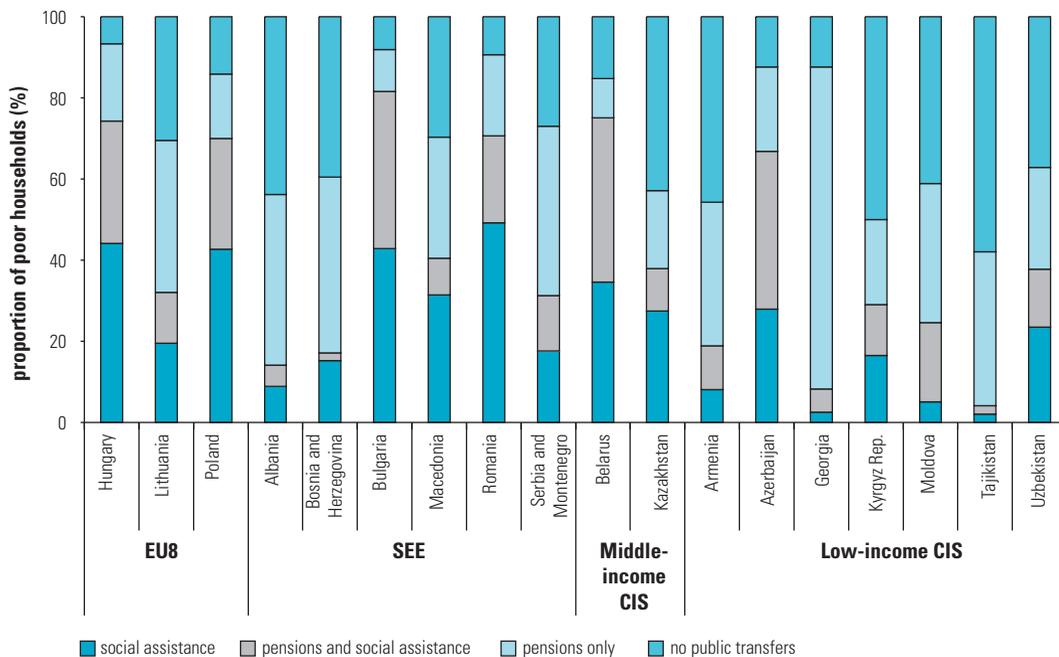


Source: World Bank staff estimates using data from ECA Household Survey Archives.

Social transfers, which include pensions and social assistance, cover the poor quite well. Almost all the poor (based on consumption before transfers) receive some form of social transfer in countries as diverse as Hungary, Belarus, Bulgaria, Georgia, Azerbaijan, and Romania. Coverage rates exceed 50 percent even in the poorest CIS countries, except Tajikistan, where the rate is 40 percent (figure 5.7). But there are differences across countries in the coverage of social assistance programs targeting the poor. These programs reach close to 80 percent of the EU8 and Southeastern Europe, but the coverage rate in the low income CIS countries (except Azerbaijan and Uzbekistan) is around 20 percent.

Private transfers also reduced poverty with remittances playing a prominent role. The European Union (75 percent) and the resource-rich CIS countries (10 percent) are the main sources of remittances

FIGURE 5.7
Coverage of Social Protection by Country Groups, around 2003



Source: World Bank staff estimates using data from ECA Household Surveys Archive; World Bank 2005a.

for Eastern Europe, the CIS, and Turkey. Moldova and Tajikistan have among the largest shares of remittances in GDP (more than 35 percent,) followed by Armenia, Bosnia, and Albania (more than 15 percent).⁵ Indeed, remittances are the second most important source of external financing after foreign direct investment for many countries in the region. They have on average contributed more than 20 percent of the disposable income of the region’s poorest households.⁶

Continuing reductions in poverty are possible even without a significant increase in employment. Experience since 1998 shows that productivity growth has been the main driver of poverty reduction, both directly through the labor market and indirectly by making possible more generous safety nets, which help those unable to benefit directly from growth.

Caveats

Despite rapid growth and reduction in income poverty, not all is well. In addition to the 35 million people in absolute poverty, nearly 88 million in 2005-2006 lived on an income of \$2.15–\$4.30 a day in pur-

chasing power parities and, while not absolutely poor, are vulnerable to downturns in economic activity (figure 5.1). Although consumption inequality declined in the region, with the Gini coefficient standing at 0.35 in 2006, it increased in Tajikistan, the poorest country in the region, and in several countries in Southeastern Europe, such as Macedonia, Serbia, and Romania between 1998-99 and 2005-2006.

On the nonincome dimensions of poverty, while male life expectancy and child and maternal mortality are moving in the right direction, progress in reducing mortality has been very slow. There are concerns about the delivery and quality of critical medical services. Some low income CIS countries have been unable to stem the decline in public spending on health or to stabilize it at very low levels. Although the erosion of almost universal primary education that occurred in the 1990s has been reversed and enrollments in secondary education have increased, trends in the quality of education are less sanguine. Despite increases in education spending per capita in many countries, only in the EU8, Bulgaria, Croatia, and Romania were scores in science and mathematics at or higher than the OECD in the Program for International Student Assessment (PISA), which tests 15-year-old students' mastery of higher order skills.⁷

Well-Being in Transition

The recent EBRD-World Bank Life in Transition Survey, which was conducted in 27 transition countries in 2006, shows that satisfaction with life, although well correlated with household expenditure, depends on a number of subjective factors as well. These are self-reported health status, self-assessment of relative economic standing, relative economic status compared to peers, personal perception of improvement in economic status over time and the level of trust in people. Work status is important: the employed are about 16 percent more likely to be satisfied with life than the unemployed. This may be compared with an additional 13 percent of life satisfaction for those with twice the average per capita expenditures, compared to those with half the average per capita expenditure. Hence, the high unemployment and low participation that prevail in many transition countries are taking a toll on individual well-being. This implies that while reduction of income poverty without improved employment prospects is possible, building inclusive societies by directly addressing constraints to higher labor force use, such as skills in the new member states of the European Union, should be an important priority.⁸

Social capital is important as well: those who trust other people are significantly more likely to be satisfied with their lives than those who do not, controlling for other determinants of satisfaction with life. Hence, the erosion of trust associated with the loss of social capital during the transition has affected satisfaction rates adversely in Eastern Europe and the former Soviet Union.

Endnotes

1. The \$4.30 PPP a day standard is however more consistent with national poverty lines in the EU8 countries. A fuller discussion is contained in World Bank (2005a). Use of the higher poverty line leads to a poverty headcount of 15.4 percent in the EU8 countries.
2. The definition of the working poor is based on the work intensity of the household as a whole. If no member of a household with work-capable members worked for even a single day in the reference period, such a household is classified as “jobless”; all other households with employed work-capable members are classified as “working.”
3. Labor force survey data, from which figures 1.1 and 1.2 are constructed, showed total employment in Moldova to be stable between 1999 and 2002, at around 1.5 million, dropping to 1.3 million in 2003. Household survey data, on which Figure 4.6 is based, show however an increase in total employment from 1.5 million in 1998 to 1.6 million in 2003. The likely reason is a more restrictive definition of informal sector unemployment in the labor force survey.
4. Male labor force participation rates are EU8 (72.7%), Southern Europe (71.7%), Middle Income CIS (75.6%), Low Income (73.3%), EU15 (78%). Female labor force participation rates are EU8 (63.1%), South-eastern Europe (56.2%), Middle Income CIS (67.2%), Low Income CIS (58.1%), EU15 (65%).
5. These figures do not take into account the substantial flow of unrecorded remittances. For example, unrecorded remittances in Albania, Bosnia, Moldova, Serbia, and Montenegro more than offset the large current account deficits of those countries.
6. A detailed analysis of migration and remittances is in World Bank (2006b).
7. Some aspects of access to and quality of education, health care, safe water, and heating in the transition countries are discussed in World Bank (2005a).
8. See also EBRD (2007) for a detailed description of the survey as well as a summary of its main findings. The comparisons on work status and trust in people are developed in Alam, Mitra and Zaidi (2008).

PART III

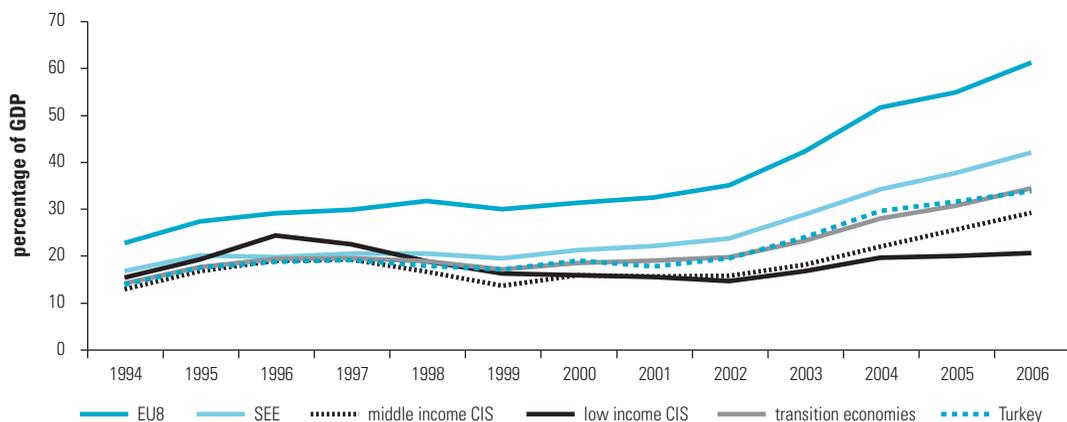
INTEGRATION

International Trade

A key reform at the beginning of the transition was price liberalization, opening domestic markets of tradable goods to international prices and setting in motion the integration of the countries of Eastern Europe and the former Soviet Union into the world economy. Merchandise exports and imports in those countries expanded from just over 15 percent of GDP in 1994 to nearly 35 percent in 2006. Services, a low priority under central planning, emerged as a dynamic force in such sectors as telecommunications, transportation, energy, and banking, boosting services trade to nearly 7 percent of GDP.

These averages mask large intraregional variation: merchandise exports and imports in 2006 ranged from 20 percent of GDP for the low income CIS countries to more than 60 percent in the EU8 with the Southeastern European (SEE) countries falling in between at 40 percent of GDP (figure 6.1). Services trade ranged from under 5 percent of GDP for the middle income CIS countries, where services are heavily burdened by regulation and protected from competition, to nearly 10 percent for the Southeastern European countries (figure 6.2). Indeed, fed by foreign direct investment (FDI) in Estonia, Lithuania, and the coastal Balkans, the share of services in GDP in the EU8 and Southeastern Europe reached nearly 62 percent in 2005, far

FIGURE 6.1
Merchandise Trade Openness as Percentage of GDP, in Purchasing Power Parities



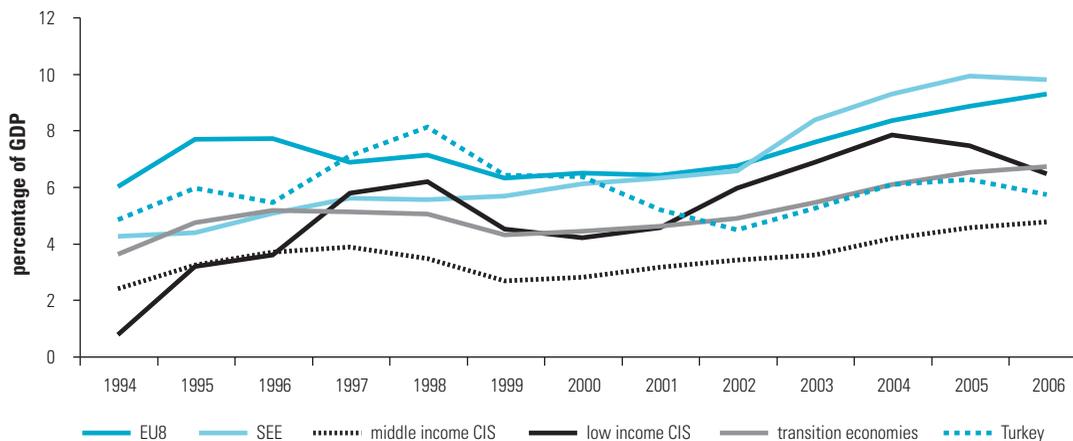
Source: World Bank staff estimates.

higher than around 43 percent in the South Caucasus (Armenia, Azerbaijan, Georgia) and Central Asia (Kazakhstan, the Kyrgyz Republic, Tajikistan, Uzbekistan).

Direction of Trade

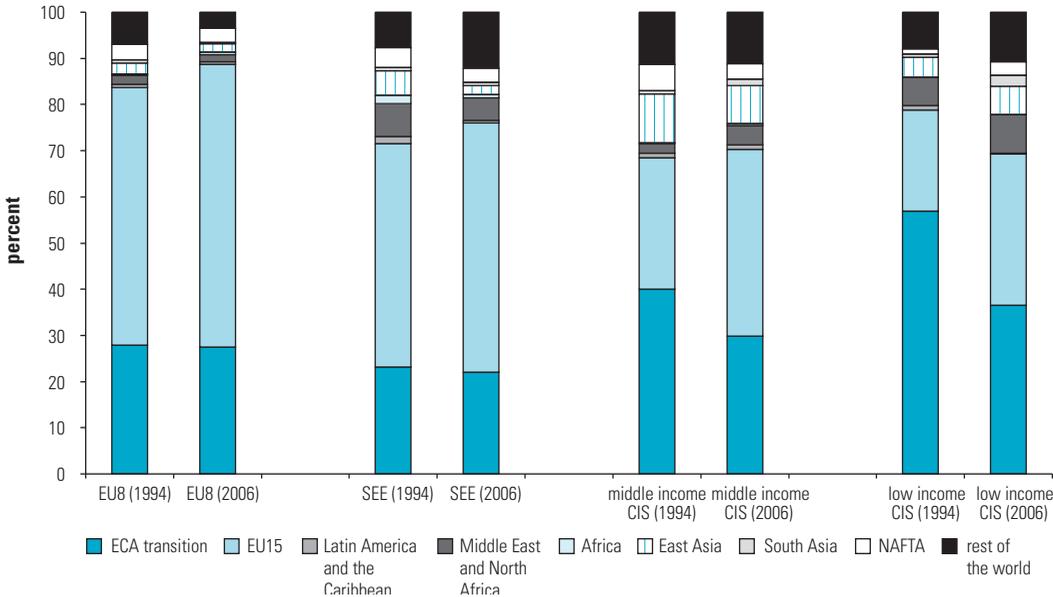
Figure 6.3 compares the global destination of merchandise exports between 1994 and 2006. The share of EU8 exports absorbed by the EU15 countries, already the highest among transition country groups

FIGURE 6.2
Services Trade Openness as Percentage of GDP, in Purchasing Power Parities



Source: World Bank staff estimates.

FIGURE 6.3
Global Distribution of Merchandise Exports from the Transition Countries



Source: IMF Direction of Trade Database.

in 1994, increased further by 2006, largely at the expense of trade with the rest of the world. The same was true of the share of Southeastern European exports absorbed by the EU15 countries, at the expense of trade with the Middle East, North Africa, and East Asia. Both the middle income and low income CIS groups substantially increased the share of their total exports going to the EU15 countries, largely at the expense of the transition countries and, to much less extent, North American Free Trade Agreement (NAFTA) countries. The EU15 became the most important destination for middle income CIS exports and nearly as important as the transition countries for low income CIS exports. Underlying this reorientation in recent years was the growing significance of fuel exports from the Russian Federation to the EU15. The share of low income CIS exports to East Asia and South Asia went up as well. So, all transition country groups increased the share of exports going to the EU15, and by 2006 the EU15 had become the most important destination for exports from three of the four transition country groups and the second most important for the fourth.

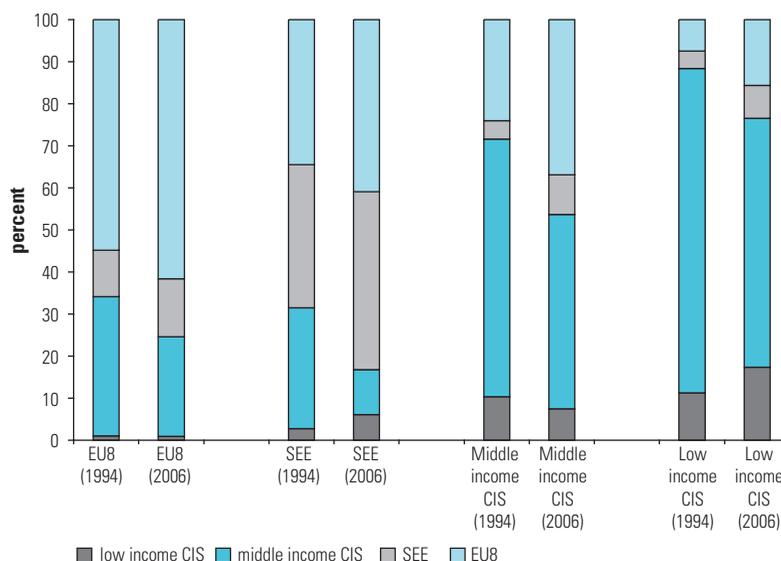
Figure 6.4 shows changes in intraregional patterns in the destination of merchandise exports. A modestly larger share of EU8 intraregional merchandise exports in 2006 went to the EU8 and Southeastern European countries, at the expense of the share of the middle income CIS countries, with the EU8 the dominant destination

(figure 6.4). A much larger share of Southeastern European intraregional exports went to Southeastern European countries, principally at the expense of the share of the middle income CIS countries, with the Southeastern European countries the dominant destination. A much larger share of middle income CIS intraregional exports went to the EU8 and Southeastern European countries, mainly at the expense of the share of the middle income CIS countries. But the middle income CIS remained the dominant destination. The share of low income CIS intraregional exports going to the EU8 and Southeastern European countries increased at the expense of the share of the middle income CIS countries. Again, the middle income CIS countries remained the dominant destination.

So, the salient features of intraregional merchandise exports were:

- The dominance of the EU8 and Southeastern European countries for the intraregional exports from each subgroup.
- The dominance of the middle income CIS countries for the intraregional exports of both middle income and low income CIS countries.
- A redirection of the intraregional exports from all four country groups away from the middle income CIS countries and toward the EU8 and Southeastern European countries.

FIGURE 6.4
Intraregional Distribution of Merchandise Exports



Source: IMF Direction of Trade Database.

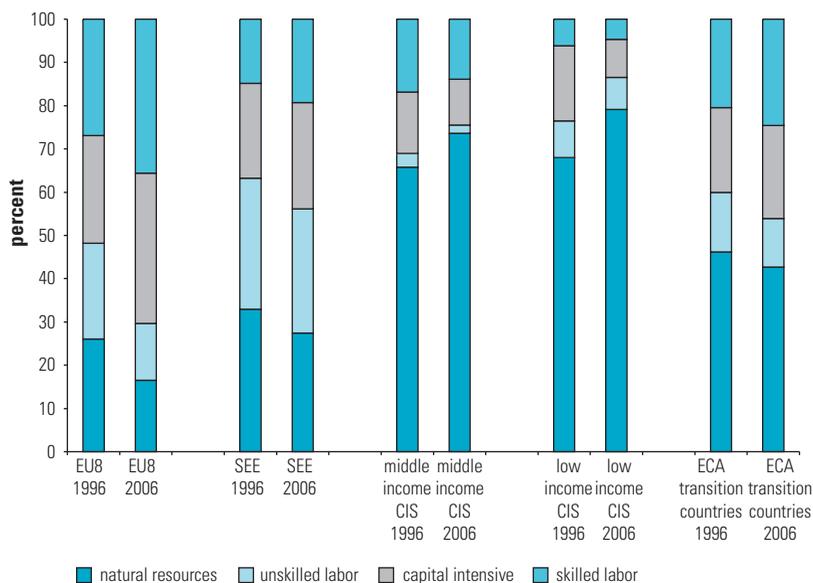
Factor Composition of Trade

Shaping the factor intensity of trade in the different groups of countries are the changes in the sectoral distribution of economic activity that accompanied the onset of transition (figure 6.5). The collapse of manufacturing and the reverse migration of labor into subsistence, including agriculture, are reflected in an increase in the share of exports of natural-resource-intensive products—oil in Azerbaijan, gold in the Kyrgyz Republic, and aluminum in Tajikistan. They account for nearly 80 percent of the merchandise exports of the low income CIS countries, with skilled-labor-intensive and capital-intensive products making up a modest share. Heavy reliance on natural-resource-based products that involve little processing typically does not generate high paying jobs. Natural-resource-intensive products, such as oil and gas in Kazakhstan, the Russian Federation, and Turkmenistan, make up around 70 percent of the merchandise exports of the middle income CIS countries, but the share of skilled-labor-intensive and capital-intensive products in exports is notably higher than in the low income CIS countries.

At the other end of the spectrum of transition countries, 70 percent of EU8 merchandise exports are intensive in capital and skilled labor. They are less natural-resource-intensive than in the rest of the region, a pattern associated with higher paying jobs. Indeed, the con-

FIGURE 6.5

Factor Intensity of Merchandise Exports



Source: Computations based on UN COMTRADE Statistics, adapted from World Bank 2005c.

centration of trade increased in the EU8 countries between 1996 and 2006 in activities different from those in the CIS countries. In Hungary and the Czech and Slovak Republics heavy industries, such as automotives and parts, are more important. The EU8 also reduced its share of unskilled-labor-intensive exports, consistent with higher labor costs. The Southeastern European countries have exports with relatively low capital and skilled labor intensity and relatively high unskilled labor intensity, with the share of the latter not having changed much between 1996 and 2006, even as exports rose. This reflects their relative specialization in low value-added products, a pattern not likely to be consistent with their comparative advantage.

Buyer-Driven and Producer-Driven Networks

The various groups of transition countries differ not only in the factor composition of trade but also in the nature of trade itself. Globalization and multinational corporations' creation of production and distribution networks spanning the globe have boosted intrafirm trade to an estimated third of world trade. At some risk of oversimplification, countries in the region may be classified as those that participate actively in intraindustry trade and those that do not, including among the latter countries that trade predominantly in natural resources. This broad split can be seen in the degree of participation in global production-sharing networks, in which specialized activities are developed within a vertically integrated production network, increasing intraindustry trade at the expense of traditional interindustry trade.

Seven countries—the Czech Republic, Estonia, Hungary, Poland, the Slovak Republic, Slovenia, and Turkey, the high performing or HP7 countries—started by participating in network trade in clothing. This activity is intensive in unskilled labor and embedded in “buyer-driven” production chains, where global buyers create a supply base of production, and distribution systems are built without direct ownership. But prompted by rising wages, the HP7 moved into sectors such as automotive and information technology—intensive in skilled labor, capital, and knowledge, demanding foreign capital and know-how, and embedded in “producer-driven” production chains. Such networks divide the value chain into smaller pieces and move them to countries where production costs could be lower.

Production fragmentation in vertically integrated sectors is behind producer-driven network trade. It is characterized by two-way flows of parts and components for further processing and development

across firms in various countries and hinges critically on the presence of multinationals.

CIS countries such as the Kyrgyz Republic, Moldova, and Turkmenistan, involved in the buyer-driven production chains of the clothing trade, have not made a transition to producer-driven networks. Nor have Belarus, the Russian Federation, and Ukraine, countries active with the Kyrgyz Republic and Moldova in the furniture network. Although buyer driven, the furniture network is more diversified and complex, requiring larger inputs of skills and investments in capital assets—and creating more opportunities for knowledge transfers and productivity spillovers than the clothing network. The same is true for Armenia, prominent in the diamond supply chain. The remaining CIS countries have remained outside any network trade and have thus not taken advantage of this avenue of export growth. Network exports have significantly declined, however, in the Kyrgyz Republic and Moldova, where the high proportion of imported parts as a proportion of network exports of parts and final products suggests limited participation of local firms in the network.

But this stark binary picture for participation in production-driven networks needs to be qualified: not all EU8 and Southeastern European countries are heavily involved in producer-driven network trade. Latvia and Lithuania among the Baltic states and Albania, Bulgaria, Croatia, Romania, Serbia, and Montenegro in Southeastern Europe came into the clothing network later and continue to be heavily involved in outward processing for customers in Western Europe. Even so, the share of parts and components in manufacturing exports in 2006 reached 20 percent in the EU8 and 11 percent in Southeastern Europe, compared with around 6 percent in the CIS countries.

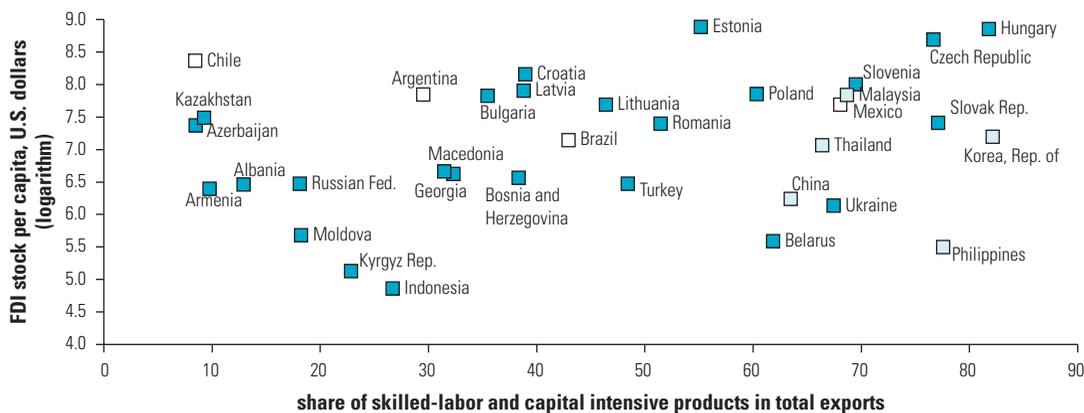
Sizable inflows of FDI have been instrumental in incorporating local manufacturing capacities into global production networks. Indeed, entering producer-driven networks appears to be almost impossible without FDI. Two of the largest recipients—the Czech Republic and Hungary—have also been the best performers in producer-driven network exports. While Hungary emerged as an early leader in Central Europe, the other HP7 countries also witnessed strong export performance after they attracted substantial FDI inflows and subsidiaries of multinationals. Indeed, there is a strong positive association in the region between the stock of FDI in manufacturing per capita and producer-driven network exports per capita. And even though participation in buyer-driven global chains in furniture or clothing does not require foreign investment, it is often associated with FDI. A good example is Romania's clothing sector, which is characterized by fairly high foreign penetration.

Countries participating in producer-driven network trade have seen a shift toward capital-intensive and skilled-labor-intensive products. More generally, however, countries with larger stocks of FDI per capita are also those with a higher share of such products in total exports. This share is by far the highest in Central Europe, followed by other middle income countries in the region such as Ukraine, Belarus, Romania, the Baltic states, Croatia, and Bulgaria (figure 6.6, which also shows countries in East Asia and Latin America, as well as Turkey). Low income countries such as Albania, Armenia, and Moldova and natural resource-rich countries such as Azerbaijan and Kazakhstan exhibit the lowest ratios. Cross-country differences in FDI per capita are striking, ranging from less than \$167 in Kyrgyzstan to \$7,212 in Estonia—more than 40 times larger.

The share of producer-driven network exports in total exports is the highest in Central Europe, followed by the Baltic states, whereas the share of buyer-driven network exports in total exports is the highest in Southeastern Europe. There is a statistically significant positive link between productivity growth in manufacturing and participation in buyer-driven and producer-driven networks.¹ This is because openness to FDI-enabled network trade improves productivity by providing access to investment capital, technology, and expertise.

Proximity to Western Europe has evidently been a major advantage for participation in networks. Indeed, the EU15 received nearly two-thirds of the producer-driven network exports of the transition countries and Turkey in 2006. For intra-regional trade in 2006, almost 75 percent of the total network exports of the transition countries

FIGURE 6.6
FDI Stock per Capita and Share of Skilled-Labor and Capital-Intensive Exports in 2006



Source: UN COMTRADE and IMF International Financial Statistics Database.

Note: FDI stock per capita is for 10 years or more over the period.

and Turkey were accounted for by the EU8 and Turkey. That figure rises to 79 percent if Bulgaria and Romania are included as well. The corresponding figure for the CIS countries was 18 percent.

Transition Countries: “Normally” Integrated?

There are large differences between subgroups of countries in the factor intensity of trade and the importance of intraindustry compared with interindustry trade. But there is no evidence, a decade and a half into the transition, of systematic overtrading or undertrading by the transition countries, whether measured multilaterally or bilaterally, based on such factors as population (a proxy for country size), geographic distance to major markets (a measure of market access), and GNP per capita.² This implies that the integration of even the low income CIS countries into the global economy is not significantly different from that of low income countries in other parts of the developing world. The transition countries thus resemble other countries in their relationship with the international trading system. This reintegrating into the world economy in barely a decade and a half since the beginning of the transition, is worthy of note. But some of the western Balkans—Albania, Bosnia, and Macedonia—are trading below their potential, a finding consistent with the evidence that the commodity composition of trade might not be in line with their comparative advantage.

With the exception of such countries as Belarus, Turkmenistan, and Uzbekistan, which have not proceeded far along the transition to a market economy, generally liberal trade policy regimes have prevailed in the region.³ The remaining barriers to greater integration require “behind-the-border” reforms of the business environment. These include strengthening competition, improving governance, deepening the financial sector, and investing in skills and infrastructure. These changes are important for attracting the foreign direct investment needed to participate in network trade. Unlike geography, they are under the control of country authorities. While the priority to be accorded to different reforms will vary from one country to another, two sets of reforms have more general application for economic integration: trade facilitation and logistics, and service liberalization.

A first reform is to improve trade facilitation and logistics in port efficiency, customs regimes, regulatory policy, and information technology infrastructure. This reform has the potential to significantly increase intraregional trade and trade with the rest of the world. What might happen if existing levels of trade facilitation in 15 transition countries and Turkey, which account for 95 percent of the combined

GDP of all the transition countries and Turkey, rose to half the EU15 level? The gain in intraregional trade would be \$94 billion. And the gain in trade with the rest of the world would be \$178 billion, which is nearly 50 percent of the transition countries' and Turkey's trade with the rest of the world in 2003. The largest gains would come from improvements in information technology infrastructure (39 percent) and port efficiency (27 percent), complemented by reforming customs (19 percent) and streamlining regulations (15 percent).⁴

A second reform is to liberalize such services as banking, telecommunications, and transport, typically combining competition with effective regulatory supervision. Reforming services allows the growth of service exports. Chapter 2 also cited evidence that manufacturing industries that rely more heavily on inputs from more liberalized service sectors enjoy higher levels of productivity than those that do not—and the resulting increase in competitiveness promotes deeper integration with the global economy. The European Union's *acquis communautaire* has provided a framework for service liberalization in the transition countries during the process of accession.

The prospect of European Union accession provided the new member states with an external anchor that supported many of the reforms necessary for the creation of a business environment conducive to productivity growth and international integration. The extent to which countries without similar prospects can look to outside mechanisms to enhance the credibility of a reforming government and thus lock in the necessary institutions is an open question. In the context of services, it has been found that commitments made by some low income CIS countries to the General Agreement on Trade in Services (GATS), for example, have not been particularly effective in improving services trade and investment policies⁵.

Patent Citations, International Co-Invention and Multinational Sponsorship of Local Invention

Another perspective on the links between openness and innovation, in addition to trade and EDI, is provided by examining knowledge flows through patent citations, international co-invention and multinational sponsorship of local inventions.⁶

To a greater extent than is commonly realized, the major patent systems often grant patents that protect even relatively incremental product and process innovations. As such, patent citations are a window into knowledge absorption. First, they show the extent to which inventors in the transition countries cite new technologies as well as how fre-

quently such technologies are cited worldwide. Taken together, this information indicates to what extent patents in countries of the region are grounded in the recent state of the art. Second, patterns in cross-national teams of inventors reveal how connected inventors in the transition countries are to the global technological mainstream.

Data from the U.S. Patent Office, covering Bulgaria, the Czech Republic, Hungary, Poland, the Russian Federation, Slovenia and Ukraine over the period 1993 to 2006, show that indigenous patents from the transition countries typically make fewer citations to the preceding literature than do those from other technologically successful regions. They tend to cite older technologies, less fundamental prior inventions, and patents that are less frequently cited. This suggests that inventors in the transition countries are insufficiently connected to the technological frontier and that the R&D community is relatively isolated from international technological trends.

But international R&D collaboration in various forms has allowed inventors in the region to sidestep these handicaps to some extent. Co-invented patents, that is, those where at least one inventor is located in a transition country and one inventor is located outside—usually in more advanced countries such as Germany, the United States, other major European economies and South Korea—have become extremely important, accounting in recent years for over half of total patents granted. Most critically, the citation patterns become less distinctive when patents generated through these collaborative arrangements are taken into account.

Foreign firms make a significant contribution to inventive activity in the region. Their local R&D operations, as well as sponsorship of local inventors, raise both the quantity of patenting activity and the quality of inventive effort. In the Russian Federation, for example, the top 10 organizations that have obtained patent grants in the United States are dominated by the local research operations of foreign firms. Indeed, patents in the transition countries created through multinational sponsorship are more connected to global R&D trends and represent inventions of higher quality. This suggests that transition countries should foster participation in an emerging international division of inventive labor, where foreign R&D investment is encouraged and local inventors become part of a knowledge production chain.

Endnotes

1. The countries in the analysis were Bulgaria, Croatia, the Czech Republic, Estonia, Poland, Romania, and Ukraine. [World Bank (2008a)].

2. The method and results are in World Bank (2005c).
3. The average tariff in the Russian Federation did, however, increase from 11.5 percent in 2001 to between 13 percent and 14.5 percent in 2003, where it held steady in 2004 and 2005 (Tarr and Shepotylo 2007).
4. The calculations are in World Bank (2005c).
5. Eschenbach and Hoekman (2006).
6. This discussion is based on World Bank (2008b).

International Migration

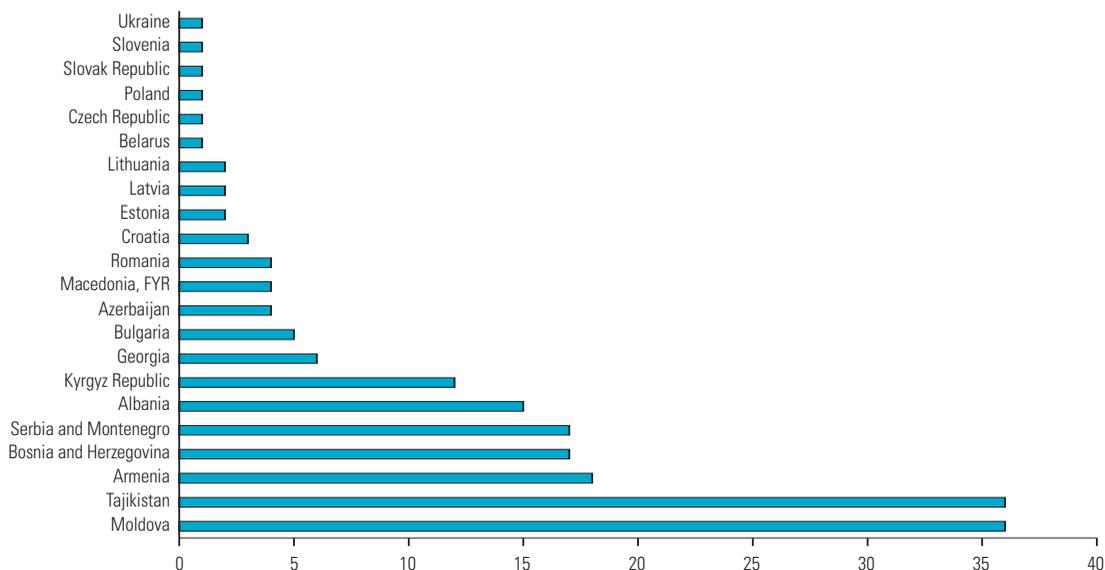
The transition countries and Turkey have seen large movements of people since the fall of the Berlin wall and the disintegration of the Soviet Union. If movements between industrial countries are excluded, the region accounts for over one-third of total world emigration and immigration. The flows at the beginning of the transition reflected the return of populations to ethnic or cultural homelands, the creation of new borders and political conflict, and the unwinding of Soviet restrictions on movement. The breakup of the Soviet Union led to the Russian Federation's gaining 3.7 million persons through migration and becoming a net recipient of migration from all other countries of the CIS as well as the Baltic states. At the same time, 15 percent or more of the populations of Albania, Armenia, Georgia, Kazakhstan, and Tajikistan migrated permanently. But later flows—driven mainly by income differences—have been large as well. Looking at migrant stocks, several countries of the region are among the top ten sending and receiving countries worldwide. The Russian Federation is home to the second largest number of migrants after the United States, Ukraine is fourth after Germany, and Kazakhstan and Poland are ninth and tenth.

Patterns of migration in the region are broadly biaxial. Much of the emigration in the western part of the region—more than 40 percent—

is directed to the EU15, while much emigration from the CIS countries—80 percent—remains within the CIS. Germany is the most important destination outside Eastern Europe, the CIS, and Turkey for migrants from the region, while Israel was an important destination in the first half of the 1990s. The Russian Federation and Kazakhstan are the main intra-CIS destinations. The United Kingdom is becoming a destination for EU8 migrants, who until recently were barred from legal access to many other EU15 labor markets.

Relative to GDP, remittances are significant in many countries of the region. Migrants’ funds represent over 35 percent of GDP in Moldova and Tajikistan and over 15 percent in Armenia, Bosnia and Herzegovina, and Serbia and Montenegro (figure 7.1). Indeed, for many countries, remittances are the second most important source of external financing after foreign direct investment. Remittance flows have followed a biaxial pattern reflecting migration flows—three-quarters have originated from the European Union and 10 percent from the resource-rich CIS countries. However, remittances recorded in the balance of payments undercount transfers between migrants and their families because between one-third and two-thirds of migrants use informal channels—or methods outside of the formal financial system such as bank transfers—to transmit remittances at some point. Unrecorded remittances appear to be crucial in explaining high current account deficits in a number of high-migration countries such as Albania, Bosnia, Moldova, Serbia and Montenegro, and Tajikistan.

FIGURE 7.1
Remittances as a Share of GDP in Transition Countries



Source: World Bank.

On average remittances have contributed more than 20 percent of the disposable income of the poorest households and have served as a cushion against the political and economic turbulence brought about by the transition. Remittances have the potential to improve income levels and standards of living but the extent to which this is realized depends on the quality of institutions, especially the business environment in the migrants' home countries.

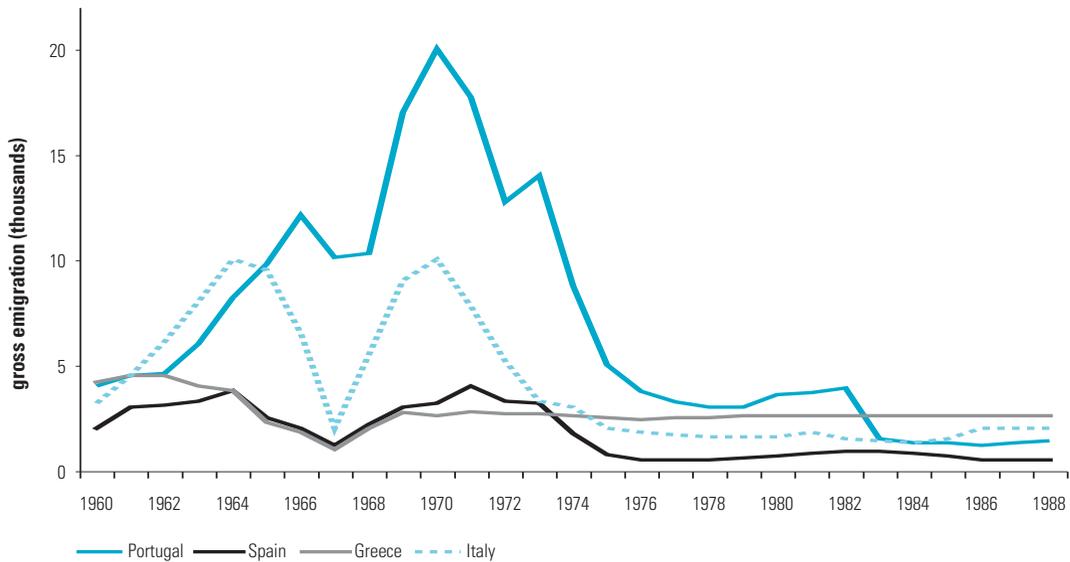
Determinants of Migration

With the initial large-scale displacements associated with the beginning of the transition out of the way, economic considerations, such as expected income differences, the expected probability of finding employment abroad, and, notably, the expected quality of life at home play an increasingly important role in decisions to migrate. But these are also tempered by the influence of cultural and social factors. The poor nature of data on migration does not allow this to be conclusively established for the transition countries. But broad support for this view is provided by the history of migration from the Southern European countries and Ireland.

The history of migration from the Southern European countries and Ireland—which realized a shift from being net emigration to net immigration countries during the period of the 1960s through the 1980s—to the wealthier European Community members is useful for understanding and predicting patterns of migration for the transition countries. Their experience suggests the importance of expected income differentials and expected improvements in domestic policy in motivating migration. In Southern Europe and Ireland, for example, emigration rates initially accelerated as these countries became more integrated into the regional economy, as has occurred for many of the transition countries. However, this increase was also associated with a shift from long-term to shorter-term migration, suggesting greater interest in return migration which, in fact, then materialized.

It is interesting to note that migration flows in Southern Europe evolved in a “hump” pattern, in which emigration rates accelerated as growth took off and more households could fund migration and then fell as further growth made working at home more attractive (figure 7.2). For example, the surge in Italian emigration to the United States at the beginning of the twentieth century was due not to an increase in poverty but to an increase in income and employment growth at the beginning of the Italian industrialization. The surge of Spanish emigration to other European countries in the period 1960—1974

FIGURE 7.2

Postwar Emigration from Southern Europe, 1960–1988

Source: World Bank 2006b.

was the result of a growth rate higher than in the other European countries. The peak of Portuguese emigration in the 1970s also took place during a growth phase, and Greece's emigration rates rose during the economic boom of the 1960s.

The prospect of EU membership may also have influenced the desire to migrate. The slowing emigration from Southern Europe in the second half of the 1970s was the result of lower incentives to migrate owing in part to the large investments made by the EU in these countries before their accession. Such investments led to expectations of a higher quality of life in potentially sending countries. Membership of the EU also played a role in Italy's turnaround from a net emigration to a net immigration country.

The history of Southern Europe and Ireland suggests that improved policies and institutions together with expectations of future growth in sending countries create incentives for migration and return migration or circular migration—the process in which migrants return home for short periods before migrating again.

Migration Agreements

Bilateral agreements between sending and receiving countries in the region, like the migration flows they regulate, have a biaxial orienta-

tion. Most agreements involving the western part of the region are with Eastern European countries. And a large majority of CIS bilateral agreements are with other CIS members, particularly the Russian Federation, followed by Belarus, Kazakhstan, and Ukraine. The bilateral agreements between the countries of Western and Eastern Europe are expiring as the new member states of the European Union participate in the European Union's single labor market. But in view of the transitional arrangements that allow the EU15 to postpone opening labor markets to the new member states for up to seven years, those agreements will retain some importance in facilitating intra-European migration.

Existing bilateral agreements do not always appear to facilitate legal international migration, as indicated by the high undocumented migration in the region (according to some estimates, undocumented migrants constitute about 15 percent of total immigration to Western Europe). That can impose significant social, economic, and national security costs on receiving and sending countries, and undocumented migrants are more subject to abuse.

Migration involves complex political, economic, and social factors. For this reason, policy experiments might be required to improve on existing frameworks that regulate migration. In that spirit, revised bilateral agreements between sending and receiving countries for temporary circular migration should recognize that the labor market, like any other market, needs to balance supply and demand. They should channel migrant labor to sectors or subsectors with little native labor to ensure that migrants are complements to domestic labor, not substitutes. More specifically, migrant worker quotas need to reflect this size of demand for migrant workers. They should offer employers in receiving countries the means to hire legally the workers they need, limiting the employment of undocumented migrants. They should ensure that employment under the new regime is temporary by designing incentives to encourage migrants' return, such as payment of some of the employment benefits in the country of origin. And they should respect the rights of migrants to be treated with dignity while abroad, including clear and transparent rules for remuneration, work conditions, and dismissal procedures.

Such agreements could stimulate circular migration, allowing employers in receiving countries to obtain affordable nontraded services while creating incentives for temporary legal migration. They are in principle more in line with many migrants' preferences to spend shorter periods abroad and with receiving countries' need to obtain labor services without necessarily absorbing a permanent population of migrants. Circular migration, encouraged by lowering

transport costs, could reduce many of the negative social effects from the separation of families during long-term migration. It could also reduce the brain drain from sending countries in Eastern Europe and the former Soviet Union. Circular migration allows for coordination between sending and receiving countries. It is also sensitive to social concerns about immigration. And by creating incentives for legal migration, it strengthens migrant rights in the receiving country.

PART IV

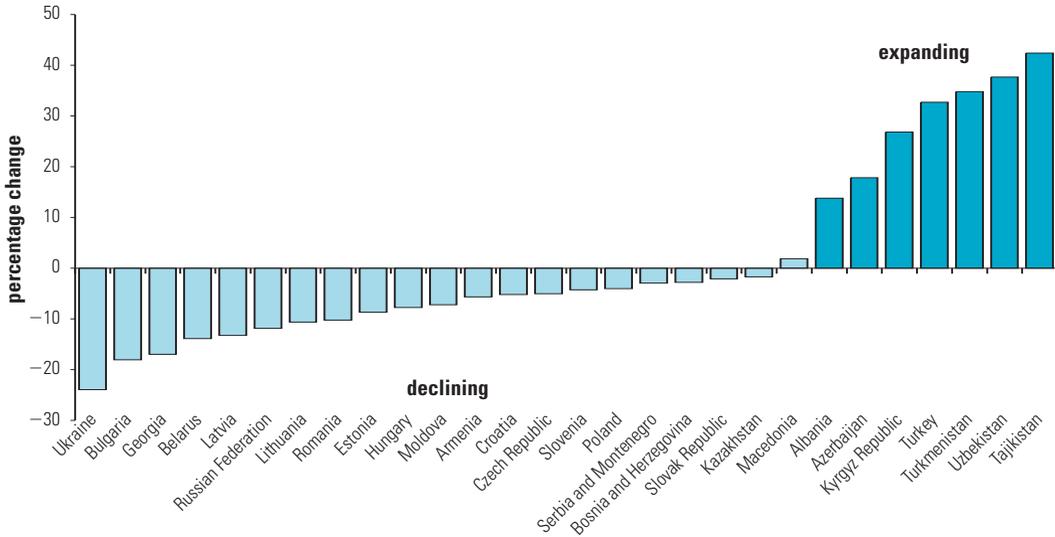
THE THIRD TRANSITION

Demographic Change

The transition countries face a major demographic challenge to their growth prospects. The limited rate of labor use, reflected in a fairly low employment rate (figure 1.2), assumes greater significance against the background of an aging population and of a projected decline in the share of the working age population in the total population in many transition countries, mostly in the western part of the region. Fertility rates are below replacement in Central Europe, parts of Southeastern Europe, and such countries as Ukraine, Bulgaria, and Georgia, with their population expected to decline more than 15 percent by 2025 (figure 8.1). The picture is quite the opposite in the eastern part of the region, where the growing population is expected to be more than 30 percent larger in Turkey, Turkmenistan, Uzbekistan, and Tajikistan by 2025.

Population projections, fraught with uncertainty, particularly over long time periods, should be treated with caution. In this case the caveat is less important because such projections, if anything, underestimate aging in the population. With that proviso, the share of the working age population for the EU8, Southeastern European (SEE), and middle income CIS countries will decline rapidly after 2015 (fig-

FIGURE 8.1
Population Change in Europe and Central Asia, 2000–25

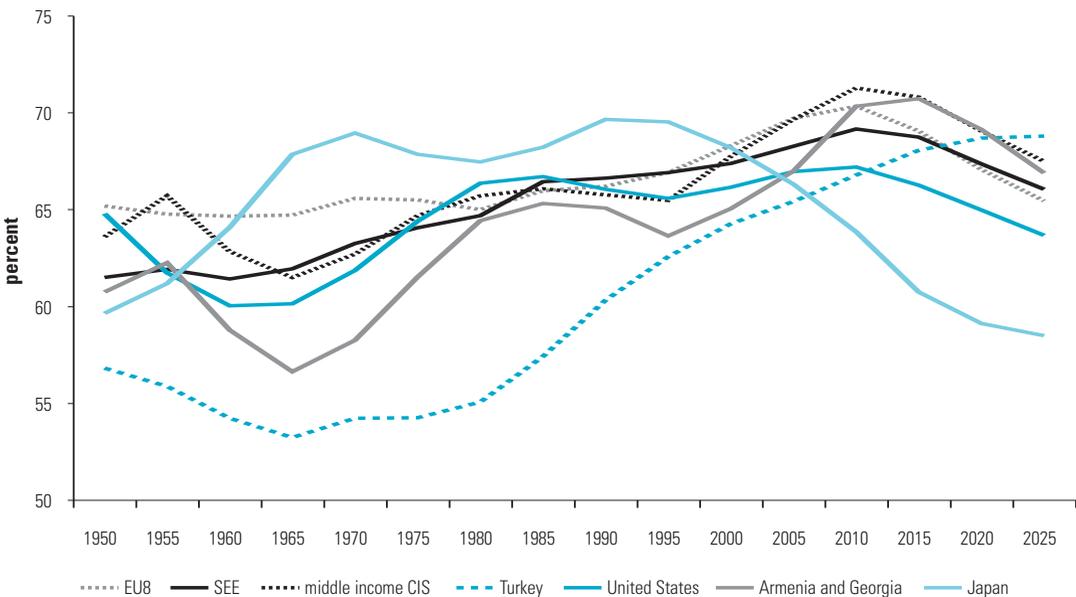


Source: UN Population Prospects.

ure 8.2), similar to the change in the EU15, deeper than in the United States, shallower than in Japan. What challenges is this demographic transition likely to pose?

A decline in the share of the working age population on the scale projected, other things being equal, has the potential to lower per

FIGURE 8.2
Working Age Population to Total Population, 1950–2025



Source: UN Population Prospects.

capita GDP growth sharply and thus delay convergence to EU15 income levels.¹

Productivity

First, there is no unambiguous evidence that aging cuts individual productivity. The impact varies depending on job-skill requirements and individual capacities. A broader issue for convergence to EU15 living standards is to improve the responsiveness of education systems to the needs of the global economy across the region, reflected in scores on the Program for International Student Assessment (PISA). PISA tests 15-year-old students' mastery of higher order skills such as synthesizing knowledge across disciplinary boundaries, integrating uncertainty into analysis, monitoring their own learning progress, and knowing where to access relevant information—precisely the skills needed for most of the fastest growing jobs in the global economy.²

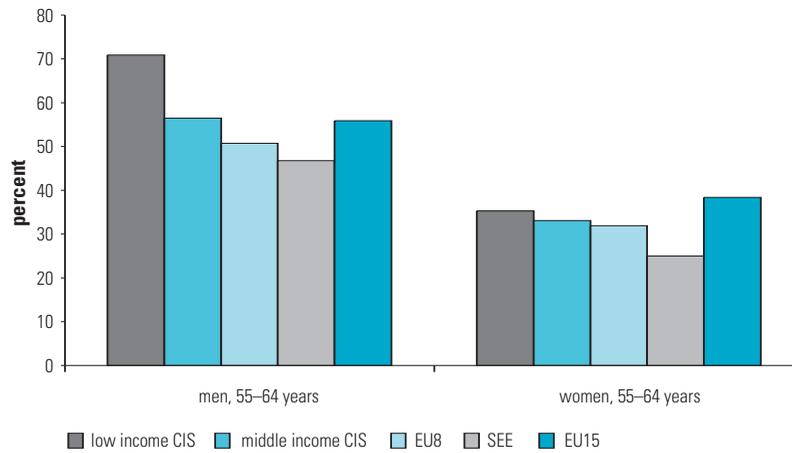
The focus of the 2006 PISA was on student abilities in comprehending and tackling scientific problems. Scores in science and mathematics were at or higher than the OECD average in the EU8, Bulgaria, Croatia, and Romania, but lower in the other countries of the region.³ These findings relate to the performance of students at the compulsory education level, where the transition countries have essentially the same coverage as the OECD countries. The comparison is likely to be less favorable for secondary and higher education. Coverage is much lower, and quality and relevance, based on limited evidence from the mid-1990s, are likely lower as well. Furthermore, lifelong learning, which can arrest a deterioration of functional literacy skills, is largely nonexistent in the transition countries; for example, only 5 percent of adults in the new member states of the European Union participate in such learning.

Participation

Second, aging can be expected to lower labor force participation, which among workers 55–64 in the EU8 and Southeastern Europe is already lower than in the EU15 (figure 8.3). This is due mainly to workers exiting earlier from the labor force. More generally in the region, participation rates for older men have been falling, particularly steeply for those under 60, in part due to restructuring in the early years of transition. Participation for older women, though lower, has

FIGURE 8.3

Labor Force Participation in the EU15 and Transition Country Groups for People Ages 55–64, by Gender, 2006



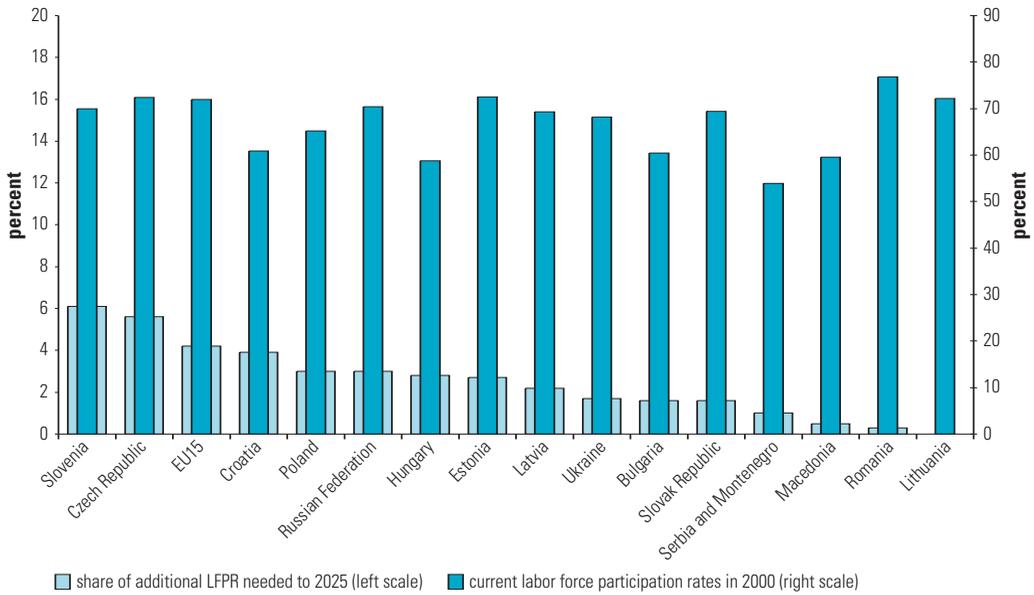
Source: ILO Key Indicators of the Labor Market (KILM) Database.

been more stable. A more detailed analysis for Albania, Bulgaria, the Russian Federation, and Turkey, only the first three of which are transition countries, shows that the effect of aging on participation rates is indeed negative, controlling for other factors that influence participation, such as the number of children in the family, number of adults, marital status, and level of education (World Bank 2007a).

What increase in labor force participation would be needed to maintain the ratio of the labor force to total population in 2025 at its 2000 level? The needed increase in the across-the-board labor force participation rate, if that were the sole policy response, ranges from 3 to 6 percentage points in Central Europe, Croatia, and the Russian Federation, comparable to and in some cases greater than that for the EU15 (figure 8.4) and provides another indication of the magnitude of the aging problem. This increase would be more difficult in the Czech Republic, Estonia, and the Russian Federation—with participation rates already close to 70 percent, comparable to those in the EU15—than in Croatia and Hungary. The full increase in this simulation may not be socially or politically feasible, but some increase in participation rates across the board, and not just for older workers, will need to be part of a broader package of measures to offset the consequences of aging for the labor supply. Increases in retirement ages, for the most part below that in the OECD countries, and their equalization for men and women will be an element of that package. That will call for reforms in labor markets, pensions, and, in some countries, the generosity of social expenditures.

FIGURE 8.4

Change in Labor Force Participation Rates Required to Maintain the Share of the Labor Force in Total Population in 2025 at 2000 Levels



Source: World Bank staff estimates drawing on data from UN Population Prospects, Labor Force Survey (LABORSTA).

Note: Data for Bulgaria are for 2003.

Savings

The effects of aging go beyond its impact on productivity and labor force participation. It can lead to a significant decline in the household savings rate, even controlling for levels and growth of income per capita, urbanization, and foreign and government savings. The declines in household savings rates would be greatest in Bulgaria, the Czech Republic, and Poland, with large projected increases in old age dependency. But household savings are less important as a source of funds for investment in the transition countries, ranging from negligible in Kazakhstan to 40 percent in Poland, than in France and Germany, for example, where they account for more than half of investment. Corporate savings, government savings, and foreign savings are more important in financing investment.

Pensions

But growing pensions and health care expenditures associated with an aging population can reduce government savings as well. Indeed, without reforms, aging can put pension systems under acute pres-

sure. Compared with OECD countries, transition countries on average have pension dependency ratios (the ratio of beneficiaries to contributors) much higher than their population dependency ratios (the ratio of individuals above 64 years of age to those in the working age population). This is due to early retirement, encouraged in the early years of transition in the wake of enterprise restructuring, to high rates of unemployment among certain age groups, and to a large informal sector that does not make pension contributions.

Some transition countries have even more generous pension provisions than the OECD. Ukraine, one of the more rapidly aging transition countries, spends 15.4 percent of its GDP on pensions, more than the 14.2 percent in Italy, the highest spending OECD country, four times as rich. But Georgia, Lithuania, Romania, Serbia, and the Slovak Republic have already enacted pension reforms more far-reaching than have OECD countries—reforms that will substantially mitigate the impact of aging on pension spending. There are two important parameters in such reforms. First is the retirement age for men and women, which even in some reforming countries continues to be lower than the 65 years usually prevailing in the OECD countries. Second is indexing pensions post-retirement to inflation, to maintain their purchasing power, rather than to wage growth. Note that pension benefits after comprehensive reforms will be inadequate to prevent old age poverty in some countries. They will need to be supplemented by social assistance.

Health

Public expenditures on health, ranging from 0.9 percent of GDP in Georgia to 6.6 percent of GDP in Serbia and Montenegro, have been growing faster than GDP in most transition countries. The growth in health spending owes less to aging and more to advances in medical technology, productivity, and societal preferences. But spending on long-term care, expected to increase substantially with aging, could be contained only through the design of delivery arrangements—introducing a category of care that is part medical and part social, located between home care and primary care. Perhaps the longest term policy strategy is promoting a healthier elderly population.

A Policy Package

What is needed to meet the demographic challenge? Raising labor force participation for men and women through delaying retirement

or reducing the tax wedge on labor—social security contributions plus personal income tax as a proportion of gross labor costs—where less distortionary taxation or coordinated expenditure cuts are an option. Generating public savings through pension and health sector reform. Building a training and education framework conducive to lifelong learning.

These reforms do not look overly ambitious. Indeed, they are similar to those under way in the aging societies of Western Europe and Japan. But the aging transition countries are much poorer and have generally less mature institutions for economic policy making. Aging will thus pose a serious challenge to growth prospects in the transition countries.

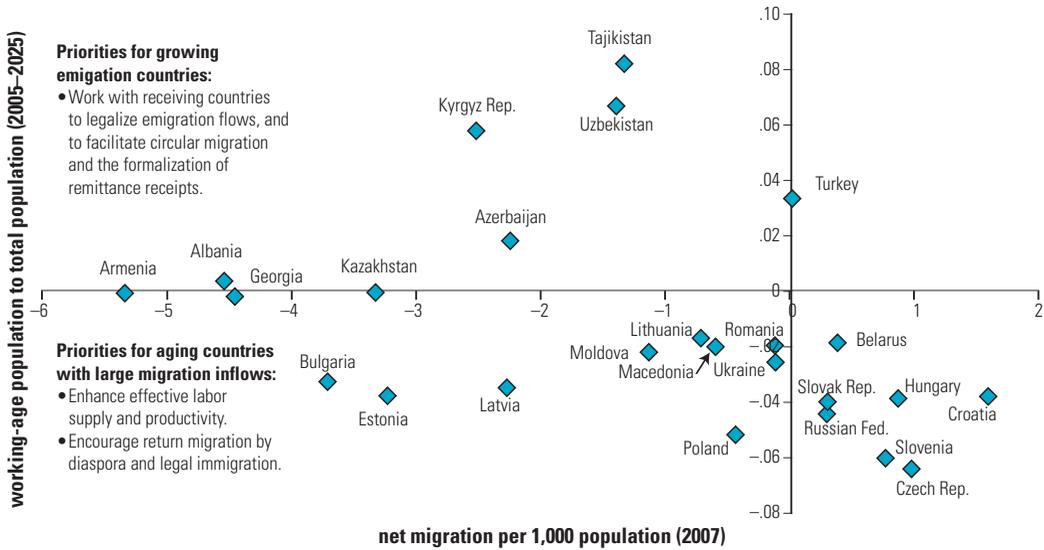
For these reasons, the deleterious effect of aging on labor supply will need to be offset through faster growth in productivity as well. But productivity growth requires attention to all the issues to do with the business environment for firms that were the subject of Chapters 2 and 3. Failing to deal with them will derail the convergence toward the EU15 living standards to which many transition countries aspire.

The Role of Migration

Migration is not a substitute for policies to offset the consequences of aging. But it can be one part of the solution. Countries can be classified by whether the share of the working age population is projected to rise or fall till 2025 and whether they were net senders or recipients of migrants in 2007 (figure 8.5). Belarus, Croatia, the Czech Republic, Hungary, the Russian Federation the Slovak Republic and Slovenia are examples of aging societies that are net receivers of migrants (in the southeast quadrant). By contrast, Albania, Azerbaijan, Turkey and all countries except Kazakhstan in Central Asia are projected to see a rising share of the working age population in total populations. With the exception of Turkey, where immigration and emigration are broadly in balance, these countries are net senders of migrants (in the northwest quadrant). Among the countries where the share of the working age population is expected to decline or stay unchanged, Armenia, Georgia, Moldova, Bulgaria, the Baltic states, Macedonia, Poland, Romania and Ukraine are net senders of migrants (in the southwest quadrant, including the horizontal axis).

As incomes per capita rise rapidly in the wealthier transition countries, it is likely that net senders among them, such as Poland and the Baltic states that currently export labor to the EU15, where growth is typically slower, will become net receiving countries. This will be

FIGURE 8.5
Migration and Demography—Policy Implications



Source: UN Population Prospects Database and national statistical authorities.

accelerated by labor market shortages that have emerged in some EU8 countries. Such receiving countries will wish to combine circular immigration from poorer sending countries with reverse migration of their own citizens from the EU15 countries. This would be consistent with the historical experience of migration flows from Southern Europe—Greece, Italy, Portugal, and Spain—as well as Ireland, which shifted from being net emigration to net immigration countries during the post-World War II period. The poorer aging countries, such as Macedonia and Moldova, will continue to be net sending countries, though possibly at a slower rate for the foreseeable future. And outflows from Armenia and Georgia, both sending countries could continue for a long time to the Russian Federation, which faces more acute aging than either of them. Hence circular migration, with the particular features highlighted in Chapter 7, could play a role in a broader policy package designed to meet the demographic challenge in the aging transition countries.

These developments will also affect the EU15 countries that rely on migrants from Poland and the Baltic states to fill labor market shortages. Since the new member states of the EU are aging faster than the EU15, the latter will need to look farther afield to countries where populations are young and growing, such as Turkey, Central Asia, and beyond.

Endnotes

1. The equation associated with figure 1.1 can be written in terms of growth rates as follows: Growth in GDP per capita = Growth in aggregate labor productivity + Growth in the employment rate + Growth in the share of the working age population in total population.
2. Countries from the region that participated in the PISA survey in 2006 were Azerbaijan, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, the Kyrgyz Republic, Latvia, Lithuania, Montenegro, Poland, Romania, the Russian Federation, Serbia, the Slovak Republic, Slovenia, and Turkey.
3. Reading scores were correlated with those in science.

Decomposing Productivity Growth

One approach to decompose productivity growth is from Foster, Haltiwanger, and Krizan (2001). It uses base-year market shares as weights for each term of the decomposition:

$$\begin{aligned} \Delta P_t = & \sum_{\text{Continuers}} \theta_{it-k} \Delta p_{it} + \sum_{\text{Continuers}} \Delta \theta_{it} (p_{it-k} - P_{t-k}) + \sum_{\text{Continuers}} \Delta \theta_{it} \Delta p_{it} \\ & + \sum_{\text{Entries}} \theta_{it} (p_{it} - P_{t-k}) - \sum_{\text{Exits}} \theta_{it-k} (p_{it-k} - P_{t-k}) \end{aligned}$$

where Δ is changes over the k -years' interval between the first year ($t-k$) and the last year (t); θ_{it} is the share of firm i in the given industry at time t (expressed in output or employment); p_i is the productivity of firm i ; and P is the aggregate (weighted average) productivity level of the industry. The first term is the within component; the second term is the between component; the third term is the covariance or cross component; and the fourth and fifth terms are the entry component and exit component, respectively.

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Rapid growth in Eastern Europe and the former Soviet Union since the Russian financial crisis of 1998 has moved 50 million people—out of 400 million—out of absolute poverty. This has been brought about by productivity growth, which allowed broad-based increases in real wages, together with the use of public transfers to benefit those who were not part of the labor force. In the new member states of the European Union that are the furthest advanced in the transition to a market economy, productivity growth is increasingly driven by improvements in how production is organized and carried out at the firm level, activities that fall under the rubric of innovation and knowledge absorption. In most countries of the former Soviet Union, by contrast, the entry and exit of firms and the reallocation of resources across existing firms are relatively more important for productivity growth, reflecting the need to redress the historic misallocation of resources. Productivity growth depends on a business environment that delivers competitive markets, a deep financial sector, good governance, and superior job skills and infrastructure. *Innovation, Inclusion, and Integration* finds that key elements of the business environment for firms are converging toward those in the developed market economies of Western Europe, with the new member states of the European Union leading the way and most countries of the former Soviet Union following, but at some distance, behind.

Employment growth has been sluggish almost everywhere. Constraints to its expansion in the new member states of the European Union are to be found more in shortages of skills demanded by employers. In the countries of Southeastern Europe and much of the former Soviet Union, however, expansion in employment is constrained by

downsizing in state-owned and privatized firms, once again the product of legacy, which more than offsets job growth in new private firms. Although productivity growth and public transfers have been successful in reducing poverty notwithstanding modest employment growth, those excluded from the labor force are significantly more dissatisfied with their lives. Identifying and addressing the constraints to expanding employment should be an important complement to productivity growth in building inclusive societies.

Innovation, Inclusion, and Integration synthesizes the findings of the flagship regional reports produced by the World Bank's Europe and Central Asia Region. These have dealt with productivity growth, enhancement of job opportunities, trade and integration, migration and remittances, poverty and inequality, and the challenges posed by aging populations. This book explains the relationships among developments in each of these areas and explores the implications of these relationships for policy making in the region's nations. It will be of particular interest to policy makers, government officials, researchers, and economists interested in fostering inclusive economic growth in the countries of the region and their deeper integration into the global economy.

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