Fiscal Federalism and Macroeconomic Governance

For Better or For Worse?

Anwar Shah

Shah concludes that, contrary to a common misconception, decentralized fiscal systems offer more potential for improved macroeconomic governance than do centralized fiscal systems, because they require greater clarity about the roles of various players and decisionmakers and — to ensure fair play — greater transparency in rules governing interactions.

The World Bank
Operations Evaluation Department
Country and Regional Relations Division
November 1998
Summary findings

In analyzing the institutional environment for macroeconomic management, Shah discusses monetary policy, fiscal policy, and subnational borrowing. In analyzing the macroeconomic dimensions of securing an economic union, he discusses the regulatory environment, tax coordination, transfer payments and social insurance, intergovernmental fiscal transfers, and regional equity. Finally, he discusses the challenges of globalization and draws lessons from experience about fiscal reform in developing countries: Among them:

- Societal norms and consensus about the roles of various levels of government and limits to their authority are vital to the success of decentralized decisionmaking.
- Tax decentralization is a prerequisite for subnational access to credit markets.
- Higher-level institutional assistance may be needed to finance local capital projects.
- An internal common market is best preserved by constitutional guarantees.
- Intergovernmental transfers in developing countries undermine fiscal discipline and accountability while building transfer dependencies that cause a slow economic strangulation of fiscally disadvantaged regions.
- Periodic review of jurisdicational assignments is essential to realign responsibilities with changing economic and political realities.
- Finally, and contrary to a common misconception, decentralized fiscal systems offer more potential for improved macroeconomic governance than do centralized fiscal systems.

This paper — a product of the Country and Regional Relations Division, Operations Evaluation Department — is part of a larger effort in the department to learn lessons of experience in improving public sector performance in developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Silvana Valle, room G6-079, telephone 202-458-4493, fax 202-522-3124, Internet address svalle@worldbank.org. The author may be contacted at ashah@worldbank.org. November 1998. (46 pages)
Fiscal Federalism and Macroeconomic Governance:
For Better or For Worse?

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1 Earlier versions of this paper were presented at Decentralization, and Macroeconomic Governance Conference, held in Brasilia, 16-17 June, 1997, sponsored by the Government of Brazil and the OECD; second Swiss Regional Development Seminar held in La Neuveville, Switzerland, December 4-6, 1997 and the FAO/World Bank Technical Consultation on Decentralization held in Rome, Italy, December 15-17, 1997. The author is grateful to Kiichiro Fukasaku for suggesting this topic and to Murilo Portugal, Vito Tanzi, Guillermo Perry, Joao do Carmo Oliveira, Thomas Courchene, David Sewell, Bernd Spahn, Bert Hoffman and Suman Bery for helpful discussions. The views expressed in this paper are those of the author alone and should not be attributed to the World Bank Group. Please address all comments to Anwar Shah, World Bank, Room G6-079, 1818 H Street, N.W., Washington, DC 20433, USA. Telephone: 202-473-7687; Fax: 202-522-3124; E-mail: ASAH@WORLDBANK.ORG
1. Introduction

A large and growing number of countries around the globe are re-examining the roles of various levels of government and their partnerships with the private sector and the civil society with a view to creating governments that work and serve their people (see Shah, 1997 for motivations for a change). This rethinking has led to a resurgence of interest in fiscal federalism principles and practices but at the same time invited much controversy and debate. In this debate, perceived potential of a federal system for macroeconomic mismanagement and instability has invited most intense interest. A common conclusion arising from this debate is that a decentralized governance structure is incompatible with prudent fiscal management (see e.g. Prud'homme 1995, Tanzi, 1996). This paper reflects upon the debate on the “dangers of decentralization” for macroeconomic governance by providing a synthesis of theoretical and empirical literature as well as presenting new evidence on this subject. The paper concludes that, contrary to a common misconception, decentralized fiscal systems offer a greater potential for improved macroeconomic governance than centralized fiscal systems. This is to be expected as decentralized fiscal systems require greater clarity in the roles of various players (centers of decision making) and transparency in rules that govern their interactions to ensure a fair play.

The rest of the paper is organized as follows. Section 2 discusses the institutional environment for macroeconomic management. This is elaborated separately for monetary policy, fiscal policy and subnational borrowing. Section 3 is concerned with macroeconomic dimensions of securing an economic union. In this context, issues pertaining to regulatory environment, tax coordination, transfer payments and social insurance, intergovernmental fiscal transfers and regional equity are discussed. Section 4 outlines emerging challenges from globalization. Section 5 draws some general and institutional lessons for enhancing the quality of macroeconomic governance.

2. Institutional Environment For Macroeconomic Management

Using Musgrave’s trilogy of public functions namely allocation, redistribution and stabilization, the fiscal federalism literature has traditionally reached a broad consensus that while the former function can be assigned to lower levels of government, the latter two functions
are more appropriate for assignment to the national government. Thus macroeconomic management - especially stabilization policy -- was seen as clearly a central function (see e.g. Musgrave, 1983: 516; Oates, 1972). The stabilization function was considered inappropriate for subnational assignment as (a) Raising debt at the local level would entail higher regional costs but benefits for such stabilization would spill beyond regional borders and as a result too little stabilization would be provided; (b) Monetization of local debt will create inflationary pressures and pose a threat for price stability; (c) Currency stability requires that both monetary and fiscal policy functions be carried out by the center alone; and (d) cyclical shocks are usually national in scope (symmetric across all regions) and therefore require a national response. The above views have been challenged by several writers (see e.g. Scott, 1964; Dafflon, 1977; Sheikh and Winer, 1977; Gramlich, 1987: Walsh, 1992; Biehl, 1994; Shah, 1994; Mihaljek, 1995; Sewell, 1995; Huther and Shah, 1996) on theoretical and empirical grounds yet they continue to command considerable following. An implication that is often drawn is that decentralization of the public sector especially in developing countries poses significant risks for the "aggravation of macroeconomic problems" (Tanzi, 1996, p.305).

To form a perspective on this issue, we reflect in the following on the theoretical and empirical underpinnings of the institutional framework required for monetary and fiscal policies.

2.1 Institutional Setting for Monetary Policy

Monetary policy is concerned with control over the level and rate of change of nominal variables such as the price level, monetary aggregates, exchange rate and nominal GDP. The control over these nominal variables to provide for a stable macro environment is commonly agreed to be a central function and monetary policy is centralized in all nation states, federal and unitary alike. Nevertheless, there are occasional arguments to add a regional dimension to the design and implementation of monetary policies. For example Mundell (1968) argues that an optimal currency area may be smaller than the nation state in some federations such as Canada and USA and in such circumstances, the differential impact of exchange rate policies may be inconsistent with the constitutional requirement of fair treatment of regions. Further complications arise when the federal government raises debt domestically, but provincial governments borrow from abroad: This is the case in Canada as federal exchange rate policies
affects provincial debt servicing. Similarly Buchanan (1997) argues against the establishment of a confederal central bank such as the European Union Central Bank as it negates the spirit of competitive federalism.

In a centralized monetary policy environment, Barro (1996) has cautioned that a stable macro environment may not be achievable without a strong commitment to price stability by the monetary authority. This is because if people anticipate growth in money supply to counteract a recession, the lack of such response will deepen recession. The credibility of a strong commitment to price stability can be established by consistently adhering to formal rules such as a fixed exchange rate or to monetary rules. Argentina's 1991 Convertibility Law establishing parity in the value of the peso in terms of the US dollar and Brazil's 1994 Real Plan helped achieve a measure of this level of credibility. Argentine's central bank strengthened credibility of this commitment by enduring a severe contraction in the monetary base during the period December 1994 to March 1995 as speculative reactions to the Mexican crisis resulted in a decline in its foreign exchange reserves. Alternately, guaranteeing independence from all levels of the government, for a central bank whose principal mission is price stability could establish the credibility of such a commitment (Barro, 1996, Shah, 1994, p.11). Barro considers the focus on price stability so vital that he regards an ideal central banker as one who is not necessarily a good macro economist but one whose commitment to price stability is unshakable. He said, "The ideal central banker should always appear somber in public, never tell any jokes, and complain continually about the dangers of inflation" (1996, p.58). Empirical studies show that the three most independent central banks (the National Bank of Switzerland - the Swiss Central Bank, Bundesbank of Germany, and the US Federal Reserve Board) over the period 1955 to 1988, had average inflation rates of 4.4 percent compared to 7.8 percent for the three least independent banks (New Zealand until 1989, Spain and Italy). The inflation rate in the former countries further showed lower volatility. The same studies also show that the degree of central bank independence is unrelated to the average rate of growth and average rate of unemployment. Thus Barro argues that a "more independent central bank appears to be all gain and no pain" (1996, p.57). The European Union has recognized this principle by establishing an independent European Central Bank. The critical question then is whether or not independence of the central bank is compromised under a decentralized fiscal system. One would expect, a priori, that the central bank would have greater stakes and independence under a decentralized system since
such a system would require clarification of the rules under which a central bank operates, its functions and its relationships with various governments. For example, when Brazil in 1988 introduced a decentralized federal constitution, it significantly enhanced the independence of the central bank (Shah, 1991, Bomfim and Shah, 1994). Yet, independence of the central bank in Brazil remains relatively weak compared to other federal countries (see Huther and Shah, 1996). On the other hand, in centralized countries the role of the central bank is typically shaped and influenced by the Ministry of Finance. In an extreme case, the functions of the central bank of the UK (a unitary state), the Bank of England, are not defined by law but have developed over time by a tradition fostered by the UK Treasury. Only in May 1997, has the newly elected labor party government of Prime Minister Tony Blair assured the Bank of England a free hand in its pursuit of price stability. Such independence may still on occasions be compromised as the Chancellor of the Exchequer still retains a presence on the board of directors as a voting member. New Zealand and France (unitary states) have lately recognized the importance of central bank independence for price stability and have granted independence to their central banks. The 1989 Reserve Bank Act of New Zealand mandates price stability as the only function of the central bank and expressly prohibits the government from involvement in monetary policy. The People’s Bank of China, on the other hand, does not enjoy such independence and often works as a development bank or as an agency for central government “policy lending” and in the process undermines its role of ensuring price stability (see World Bank, 1995 and Ma, 1995).

For a systematic examination of this question, Huther and Shah (1996) relate the evidence presented in Cukierman, Webb and Neyapti (1992) on central bank independence for 80 countries to indices of fiscal decentralization for the same countries. Cukierman et al. assess independence of a central bank based upon an examination of 16 statutory aspects of central bank operations including the terms of office for the chief executive officer, the formal structure of policy formulation, the bank’s objectives as stated in its charter, and limitations on lending to the government. The correlation coefficient in Table 1 shows a weak but positive association confirming our a priori judgment that central bank independence is strengthened under decentralized systems.
Increases in the monetary base caused by the Central Bank’s bailout of failing state and non-state Banks represent occasionally an important source of monetary instability and a significant obstacle to macro economic management. In Pakistan, a centralized federation, both the central and provincial governments have, in the past, raided nationalized banks. In Brazil, a decentralized federation, state banks have made loans to their own governments without due regard for their profitability and risks causing the so called $100 billion state debt crisis in 1995. Thus a central bank role in ensuring arms length transactions between governments and the banking sector would enhance monetary stability regardless of the degree of decentralization of the fiscal system.

Available empirical evidence suggests that such arms length transactions are more difficult to achieve in countries with a centralized structure of governance than under a decentralized structure with a larger set of players. This is because a decentralized structure requires greater clarity in the roles of various public players, including the central bank. No wonder one finds that the four central banks most widely acknowledged to be independent (Swiss Central Bank, Bundesbank of Germany, Central Bank of Austria and the United States Federal Reserve Board) have all been the products of highly decentralized federal fiscal structures. It is interesting to note that the independence of the Bundesbank is not assured by the German Constitution. The Bundesbank Law providing such independence also stipulates that the central bank has an obligation to support the economic policy of the federal government. In practice, the Bundesbank has primarily sought to establish its independence by focusing on price stability issues. This was demonstrated most recently by its decision to raise interest rates to finance German unification in spite of the adverse impacts on federal debt obligations (see also Biehl, 1994).

The Swiss Federal Constitution (article 39) assigns monetary policy to the federal government. The federal government has, however, delegated the conduct of monetary policy to the Swiss National Bank, a private limited company regulated by a special law. The National Bank Act of 1953 has granted independence in the conduct of monetary policy to the Swiss National Bank although the bank is required to conduct its policy in the general interest of the country. It is interesting to note that the Swiss National Bank allocates a portion of its profits to
cantons to infuse a sense of regional ownership and participation in the conduct of monetary policy (see Gygi, 1991).

Monetary Management in Brazil: Unfinished Agenda

Since 1988, two major changes in the division of powers between federal and subnational governments have enhanced the role of monetary policy as a tool for macroeconomic management in Brazil. First, with the elimination of the monetary budget, a very important channel for extra-budgetary transfers to subnational governments disappeared. Second, the diminished role of the National Monetary Council, which was perceived as being more easily influenced by regional interests, has contributed to strengthening the Central Bank’s control over the money supply. A third monetary policy issue that remains firmly in the hands of the federal government concerns the implementation of incomes policies. Incomes policies are defined as measures aimed at direct control of nominal variables--such as prices, wages, and nominally denominated assets--as part of an effort to lower the inflation rate and restore macroeconomic equilibrium. The federal government is empowered with the exclusive authority to impose and enforce price and wage controls throughout the nation with no formal consultation being required with subnational governments. Such an authority is frequently used since there has been decentralization of more traditional levers of macroeconomic management such as taxes and public spending.

Despite the exclusive federal jurisdiction over the implementation of incomes policies and the existence of better federal control of monetary aggregates, the quasi-fiscal nature of the Central Bank has not been completely eliminated. An important remaining issue concerns the intergovernmental relations that take place in the banking system. The conspicuous nature of the Central Bank transfers received by state banks is certainly not desirable from a fiscal federalism perspective. Moreover, increases in the monetary base caused by the Central Bank’s bail-outs of failing state banks represent an important source of monetary instability and a significant obstacle to macroeconomic management. The potential contribution of this debt to the inflation rate could be large, especially given that the funds provided by the Central Bank are turned into base money and therefore have a multiplier effect on the aggregate money supply. The recent bailout of BANESPA, a commercial bank owned by the State of Sao Paulo, has gone further to entrench the tradition and expectation of a bailouts of state owned banks. This tradition works against
establishment of fiscal discipline at the subnational level and also gives wrong signals to the private sector when the latter have to rate the riskiness of state borrowing.

The chronically weak situation of many state banks in Brazil is attributed to their special relations with their respective governments. State governments exercise substantial influence on the portfolio allocation of their banks. This is evidenced by the fact that these banks make a majority of loans to their own governments often without due regard to profitability of these loans. In the short run, a central bank role in ensuring arms-length transactions between state governments and their banks would be desirable. In the long run, privatization of government controlled banks and independence of the central bank from all levels of government is essential for monetary stability. There has been substantial progress on both these issues. For example, under the Central Bank Resolution# 2008, states are prohibited from borrowing from their own commercial banks. Also in 1997, the Federal Government declined to bailout the state of Alagoas from default on its loan repayment obligations to a private bank (see Dillinger, 1997).

Deconcentration of Monetary Management in China

China is a unitary country and this unitary character is strongly reinforced through one party system. However, for practical purposes, it mimics a federation in many respects. China until the early 1980s had an unsophisticated banking system comprised of the People's Bank of China (PBC), along with a few specialized banks such as the People's Construction Bank - an arm of the Ministry of Finance. The central budget and the banking system provided the working capital needed by enterprises and cash used principally to cover labor costs and purchases of agricultural products. The role of the banking system was limited, since most investments in fixed assets in enterprises were financed by direct transfers or grants from the government budget. In 1983, in a major reform, direct grants were replaced with interest-bearing loans to production enterprises. Consequently, the banking system gradually became the primary channel through which investments were financed and the central authority exercised macroeconomic control. In 1984, the PBC was transformed into the Central Bank of China under the State Council and its commercial banking operations were transferred to the Industrial and Commercial Bank of China. A network of provincial branches came to serve as the relays for the central bank's monetary operations. At the same time, other specialized banks and nonbank financial institutions and numerous local branches
also emerged. The banks and the central bank established municipal, county and sometimes township level branches. The pressure on the central bank to lend originated in investment demand from state owned enterprises (SOEs).

These developments have made possible a decentralization of enterprise financing, but they have also created a wider financial arena for the scramble after resources and have greatly complicated the management of monetary policy from the center. Under the deconcentrated system, provincial and local authorities have substantial powers in investment decision-making and exert great influence on local bank branches' credit expansion. Although provinces are given certain credit ceilings at the beginning of the year, the central bank is often forced to revise the annual credit plans under pressure from localities. Local branches of the central bank was given discretionary authority over 30 percent of central bank's annual lending to the financial sector (see Word Bank, 1997:7.23). Provincial and local governments used this discretionary authority of central bank branches to their advantage by borrowing at will thereby endangering price stability. Two-digit inflation occurred in 1988 and 1989 and was followed by a credit squeeze. Monetary (inflation) cycles appeared to be more frequent than during the pre-reform era and caused significant resource waste. As 1992's credit ceilings were again exceeded by a surprisingly high margin, for instance two-digit inflation reoccurred in 1993.

The 1994 reform has addressed a number of important drawbacks in the previous system that led to the central bank's weak control over the money supply. In particular, the proposed establishment of the new PBC branch system, the centralization of personnel management for the PBC branches and specialized banks, and the separation of policy lending from commercial lending are all steps in the right direction (China has established three policy banks to finance policy lending for investment projects.). Central bank controls over lending to provincial banks is also reasserted. The People’s Bank also established a Monetary Board to oversee its operations - a step to strengthen its autonomy. However, several problems that were responsible for excessive monetary growth in the past remain unaddressed. These problems are the following. (1) The central bank is still under the control of the State Council. (2) Although the separation of policy lending from commercial lending is expected to eliminate the localities' major instrument in the monetary game—distorting the investment structure, how the policy lending projects will be financed in the future remains unsettled. (3) A fundamental source of excessive money growth—structural distortion—has
not been given enough attention. (4) The reform plan does not mention interest rate decontrol, which will eliminate the incentives for the commercial banks to divert funds from the banking system to black market lending--an important cause of the 1992-1993 monetary expansion (see Ma, 1995). Leakages from the credit plan in 1993 and 1994, however, took place through interbank market.

### 2.2 Institutional Setting for Fiscal Policy

In a unitary country, the central government assumes exclusive responsibility for fiscal policy. In federal countries, fiscal policy becomes a responsibility shared by all levels of government and the federal government in these countries uses its powers of the purse (transfers) and moral suasion through joint meetings to induce a coordinated approach to fiscal policy. The allocation of responsibilities under a federal system also pays some attention to the conduct of stabilization policies. This is often done by assigning stable and cyclically less sensitive revenue sources and expenditure responsibilities to subnational governments. Such an assignment attempts to insulate local governments from economic cycles and the national government assumes prominence in the conduct of a stabilization policy. In large federal countries such insulation is usually possible only for the lowest tier of government as the intermediate tier (states and provinces) shares responsibilities with the federal government in providing cyclically sensitive services such as social assistance. These intermediate tier governments are allowed access to cyclically sensitive revenue bases that act as built-in (automatic) stabilizers.

Several writers (Tanzi, 1996, Wonnacott, 1972) have argued, without empirical corroboration, that the financing of subnational governments is likely to be a source of concern within open federal systems since subnational governments may circumvent federal fiscal policy objectives. Tanzi (1995) is also concerned with deficit creation and debt management policies of junior governments. Available theoretical and empirical work does not provide support for the validity of these concerns. On the first point, at the theoretical level, Sheikh and Winer (1977) demonstrate that relatively extreme and unrealistic assumptions about discretionary non-cooperation by junior jurisdictions are needed to conclude that stabilization by the central authorities would not work at all simply because of a lack of cooperation. These untenable assumptions include regionally symmetric shocks, a closed economy, segmented capital markets,
lack of supply side-effects of local fiscal policy, non-availability of built-in stabilizers in the tax-transfer systems of subnational governments and in interregional trade, constraints on the use of federal spending power (such as conditional grants intended to influence subnational behavior), unconstrained and undisciplined local borrowing and extremely non-cooperative collusive behavior by subnational governments (see also Gramlich, 1987, Mundell, 1963, Spahn, 1997). The empirical simulations of Sheikh and Winer for Canada further suggest that failure of federal fiscal policy in most instances cannot be attributed to non-cooperative behavior by junior governments. Saknini, James and Sheikh (1996) further demonstrate that, in a decentralized federation having markedly differentiated subnational economies with incomplete markets and non-traded goods, federal fiscal policy acts as insurance against region-specific risks and therefore decentralized fiscal structures do not compromise any of the goals sought under a centralized fiscal policy (see also CEPR, 1993).

Gramlich (1987) points out that in open economies, exposure to international competition would benefit some regions at the expense of others. The resulting asymmetric shocks, he argues, can be more effectively dealt with by regional stabilization policies in view of the better information and instruments that are available at the regional/local levels. An example supporting Gramlich’s view would be the effect of oil price shocks on oil producing regions. For example, the Province of Alberta in Canada dealt with such a shock effectively by siphoning off 30 percent of oil revenues received during boom years to the Alberta Heritage Trust Fund, a “rainy day umbrella” or a stabilization fund. This fund was later used for stabilization purposes i.e. it was run down when the price of oil fell. The Colombia Oil Revenue Stabilization Fund follows the same tradition.

The above conclusion however, must be qualified by the fact that errant fiscal behavior by powerful members of a federation can have an important constraining influence on the conduct of federal macro policies. For example, achievement of the Bank of Canada’s goal of price stability was made more difficult by the inflationary pressures arising from the Province of Ontario’s increases in social spending during the boom years of late 1980’s. Such difficulties stress the need for fiscal policy coordination under a decentralized federal system.
On the potential for fiscal mismanagement with decentralization as noted above by Tanzi, empirical evidence from a number of countries suggests that, while national/central/federal fiscal policies typically do not adhere to the European Union (EU) guidelines that deficits should not exceed 3% of GDP and debt should not exceed 60% of GDP, junior governments policies typically do. This is true both in decentralized federal countries such as Argentina, Brazil, Canada and Germany and centralized federal countries such as Australia, India and Pakistan. In Canada, over the period 1984 to 1994, the Federal debt grew from 38 percent of GDP to 60 percent of GDP whereas provincial debt grew from 18 percent of GDP to 22 percent of GDP and the municipal debt grew from 3.6 percent of GDP to 3.8 percent of GDP. In India, federal debt in 1996/97 is about 100 percent of GDP whereas state level debt is about 30 percent of GDP. Centralized unitary countries do even worse on the basis of these indicators. For example, Greece, Turkey and Portugal and a large number of developing countries, do not satisfy the EU guidelines. National governments also typically do not adhere to EU requirements that the central banks should not act as a lender of last resort. The failure of collective action in forcing fiscal discipline at the national level arises from the “norm of universalism” or “pork barrel politics”. Legislators in their attempt to avoid a deadlock trade votes and support each others projects by implicitly agreeing that “I’ll favor your best project if you favor mine” (Inman and Rubinfeld, 1992: 13). Such a behavior leads to overspending and higher debt overhang at the national level. It also leads to regionally differentiated bases for federal corporate income taxation and thereby loss of federal revenues through these tax expenditures. Such tax expenditures accentuate fiscal deficits at the national level. In the first 140 years of US history, the negative impact of “universalism” was kept to a minimum by two fiscal rules: the Constitution formally constrained federal spending power to narrowly defined areas and an informal rule was followed to the effect that the federal government could only borrow to fight recession or wars (Niskanen, 1992). The Great Depression and the New Deal led to an abandonment of these fiscal rules. Inman and Fitts (1990) provide empirical evidence supporting the working of “universalism” in post New Deal, USA. To overcome difficulties noted above with national fiscal policy, solutions proposed include: “gate-keeper” committees (Weingast and Marshall, 1988) imposing party discipline within legislatures (Cremer, 1986), constitutionally imposed fiscal rules (Niskanen, 1992) and executive agenda setting (Ingberman and Yao, 1991) and decentralizing when potential inefficiencies of national government democratic choice outweigh economic gains with centralization. Observing a similar situation in Latin American
countries prompted Eichengreen, Hausman and von Hagen (1997) to propose establishment of an independent “gate-keeper” in the form of a national fiscal council to periodically set maximum allowable increases in general government debt. It is also interesting to note that fiscal stabilization failed under centralized structures in Argentina and Brazil but the same countries achieved major successes in this arena later under decentralized fiscal systems. The results in Table 1 provide further confirmation of these observations. The table shows that debt management discipline had a positive association with the degree of fiscal decentralization for a sample of 80 countries.

Given that the potential exists for errant fiscal behavior of national and subnational governments to complicate the conduct of monetary policy, what institutional arrangements are necessary to safeguard against such an eventuality. As discussed below, industrial countries place a great deal of emphasis on intergovernmental coordination to achieve a synergy among policies at different levels. In developing countries, on the other hand, the emphasis traditionally has been on use of centralization or direct central controls. These controls typically have failed to achieve a coordinated response due to intergovernmental gaming. Moreover, the national government completely escapes any scrutiny except when it seeks international help from external sources such as the IMF. But external help creates a moral hazard problem in that it creates bureaucratic incentives on both sides to ensure that such assistance is always in demand and utilized.

*Fiscal Policy Coordination in Mature Federations*

We have already noted that the European Union in its goal of creating a monetary union through the provisions of the Maastricht treaty established ceilings on national deficits and debts and supporting provisions that there should be no bailout of any government by member central banks or by the European Central Bank. The European Union is also prohibited from providing an unconditional guarantee in respect of the public debt of a member state (Pisani-Ferry, 1991). Most mature federations also specify no bailout provisions in setting up central banks with the notable exception of Australia until 1992 and Brazil. In the presence of an explicit or even implicit bailout guarantee and preferential loans from the banking sector as has been the case for Brazilian states, printing of money by subnational governments is possible thereby fueling
inflation. European Union guidelines provide a useful framework for macro coordination in federal systems but such guidelines may not ensure monetary stability as the guidelines may restrain smaller countries with little influence on monetary stability such as Greece but may not restrain superpowers like Germany (see Courchene, 1996). Thus a proper enforcement of guidelines may require a fiscal coordinating council.

Mature federations vary a great deal in terms of fiscal policy coordinating mechanisms. In the USA, there is no overall federal-state coordination of fiscal policy and there are no constitutional restraints on state borrowing but states’ own constitutional provisions prohibit operating deficits. Intergovernmental coordination often comes through establishment of fiscal rules established through acts of Congress such as the Gramm-Rudman Act. Fiscal discipline primarily arises from three distinct incentives offered by the political and market cultures. First, the electorates are conservative and elect candidates with a commitment to keep public spending in check. Second, pursuit of fiscal policies that are perceived as imprudent lower property values thereby lowering public revenues. Third, capital markets discipline governments that live beyond their means (see Inman and Rubinfeld, 1992).

In Canada, there are elaborate mechanisms for federal-provincial fiscal coordination. The majority of direct program expenditures in Canada are at the subnational level but Ottawa (i.e. the Canadian federal government) retains flexibility and achieves fiscal harmonization through conditional transfers and tax collection agreements. In addition, Ottawa has established a well-knit system of institutional arrangements for intergovernmental consultation and coordination (see Figure 1). But much of the discipline on public sector borrowing comes from the private banking sector monitoring deficits and debt at all levels of government. Overall financial markets and provincial electorates impose a strong fiscal discipline at the subnational level. Fiscal policy coordination risks in Canada can be largely attributed to the soft budget constraint at the federal level and therefore, there is a need to impose European Union type fiscal rules on the federal government.

In Switzerland, societal conservatism, fiscal rules and intergovernmental relations play an important part in fiscal coordination. Borrowing by cantons and communes is restricted to capital projects that can be financed on a pay-as-you-go basis and requires popular referenda for
approval. In addition, cantons and communes must balance current budgets including interest payments and debt amortization. Intergovernmental coordination is also fostered by "common budget directives" applicable to all levels of government. These embody the following general principles: (a) the growth rates of public expenditures should not exceed the expected growth of nominal GNP; (b) the budget deficit should not be higher than that of the previous year; (3) the number of civil servants should stay the same or increase only very slightly; (4) the volume of public sector building should remain constant and an inflation indexation clause should be avoided (Gygi, 1991:10).

The German Constitution specifies that Bund (federal) and Laender (state level governments) have budgetary independence (Art. 109(1) GG) but must take into account the requirements of overall economic equilibrium (Art. 109 (2) GG). The 1969 Law of Stability and Growth established the Financial Planning Council and the Cyclical Planning Council as coordinating bodies for the two levels of government. It stipulates uniform budgetary principles to facilitate coordination. Annual budgets are required to be consistent with the medium term financial plans. The Law further empowered the federal government to vary tax rates and expenditures on short notice and even to restrict borrowing and equalization transfers. Lander parliaments no longer have tax legislation authority and Bund and Laender borrowing is restricted by the German constitution to projected outlays for capital projects (the so-called "golden rule"). However, federal borrowing to correct "disturbances of general economic equilibrium" is exempt from the application of this rule. The federal government also follows a five year budget plan so that its fiscal policy stance is available to subnational governments. Two major instruments were created by the 1969 law to forge cooperative federalism: (i) joint tasks authorized by the Bundesrat and (ii) federal grants for state and local spending mandated by federal legislation or federal-state agreements. An additional helpful matter in intergovernmental coordination is that the central bank (Bundesbank) is independent of all levels of government and focuses on price stability as its objective. Most important, full and effective federal-lander fiscal coordination is achieved through the Bundesrat, the upper house of parliament where laender governments are directly represented. German Bundesrat represents the most outstanding institution for formal intergovernmental coordination. Such formal institutions for intergovernmental coordination are useful especially in countries with legislative
federalism. The Constitution Act, 1996 of the Republic of South Africa has established such an institution for intergovernmental coordination called the National Council of the Provinces.

Commonwealth-state fiscal coordination in Australia offers important lessons for federal countries. Australia established a loan council in 1927 as an instrument of credit allocation since it restricted state governments to borrow only from the commonwealth. An important exception to this rule was that states could however use borrowing by autonomous agencies and local government for own purposes. This exception proved to be the Achilles’ heel for the Commonwealth Loan Council, as states used this exception extensively in their attempt to bypass the cumbersome procedures and control over their capital spending plans by the Council. The Commonwealth Government ultimately recognized in 1993 that central credit allocation policy was a flawed and ineffective instrument. It lifted restrictions on state borrowing and reconstituted the Loan Council so that it could serve as a coordinating agency for information exchange so as to ensure greater market accountability. The New Australian Loan Council attempts to provide a greater flexibility to states to determine their own borrowing requirements and attempts to coordinate borrowing with fiscal needs and overall macro strategy (see Figure 2). It further instills a greater understanding of the budgetary process and provides timely and valuable information to the financial markets on public sector borrowing plans. The process seems to be working well so far.

_Fiscal Policy Coordination Concerns in Brazil_

Tax assignments mandated by the Constitution in Brazil have reduced federal flexibility in the conduct of fiscal policies. The new Constitution has transferred some productive federal taxes to lower level jurisdictions and also increased subnational governments' participation in federal revenue sharing schemes. Federal flexibility in the income tax area, however, has remained intact. This gives the federal government some possibility of not only affecting aggregate disposable income, and therefore aggregate demand, but also exerting direct influence over the revenues and fiscal behavior of the lower levels of government which end up receiving nearly half of the proceeds of this tax. The effectiveness of such a policy tool is an open question and critically depends upon the goodwill of subnational governments. Consider the case where the federal government decides to implement a discretionary income tax cut. The measure could have a
potentially significant effect on the revenues of state and local governments, given their large share in the proceedings of this tax. It is possible that, in order to offset this substantial loss in revenues from federal sources, lower levels of government might choose either to increase the rates and/or bases on the taxes under their jurisdiction, or increase their tax effort. Such state and local government responses could potentially undermine the effectiveness of income taxes as a fiscal policy instrument. Thus a greater degree of intergovernmental consultation, cooperation and coordination would be needed for the success of stabilization policies.

An overall impact of the new fiscal arrangements was to limit federal control over public sector expenditures in the federation. The success of federal expenditures as a stabilization tool again depends upon subnational government cooperation in harmonizing their expenditure policies with the federal government. Once again, the Constitution has put a premium on intergovernmental coordination of fiscal policies. Such a degree of coordination may not be attainable in times of fiscal distress.

A reduction in revenues at the federal government's disposal and an incomplete transfer of expenditure responsibilities have further constrained the federal government. The primary source of federal revenues are income taxes. These taxes are easier to avoid and evade by taxpayers and therefore are declining in relative importance as a source of revenues. Value added sales taxes, which are considered a more dynamic source of revenues, have been assigned to the state level. Thus federal authorities lack access to more productive tax bases to alleviate the public debt problem and to gain more flexibility in the implementation of fiscally based macroeconomic stabilization policies. This situation could be remedied if a joint federal-state VAT to be administered by a federal-state council were to be instituted as a replacement for the federal IPI, the state ICMS, and the municipal services tax, which bases partially overlap. Such a joint tax would help alleviate the current federal fiscal crisis as well as streamline sales tax administration.

Federal expenditure requirements could be curtailed with federal disengagement from purely local functions and by eliminating federal tax transfers to municipalities. Transfers to the municipalities would be better administered at the state level as states have better access to data on municipal fiscal capacities and tax effort in their jurisdictions. Some rethinking is in order on the role of negotiated transfers that have traditionally served to advance pork-barrel politics rather than
to address national objectives. If these transfers were replaced by performance oriented conditional block (per capita) federal transfers to achieve national (minimum) standards, both the accountability and coordination in the federation would be enhanced. These rearrangements would provide the federal government with greater flexibility to pursue its macroeconomic policy objectives. Finally, some thought needs to be given to the development of fiscal rules binding on all levels of government and a federal-state coordinating council to ensure that these rules are enforced (see also Bomfim and Shah, 1994 and Oliveira, 1994). There has been some progress on these issues in recent years. For example, negotiated transfers have become insignificant due to the fiscal squeeze experienced by the federal government. The senate has prescribed guidelines (Senate Resolution #69, 1995) for state debt: maximum debt service is not to exceed 16% of net revenue or 100% of current revenue surplus, whichever is less and the maximum growth in stock of debt (new borrowing) within a 12 month period, must not exceed the level of existing debt service or 27% of net revenues whichever is greater (see Dillinger, 1997). More recently in 1998, pension and civil service entitlements reform have introduced greater budgetary flexibility for all levels of government.

*Deconcentration of Fiscal Management in China*

Before 1980, China's fiscal system was characterized by a decentralized revenue collection followed by central transfers i.e., all taxes and profits were remitted to the central government and then transferred back to the provinces according to expenditure needs approved by the center. Under this system, the localities had little managerial autonomy in local economic development. In 1980, this centralized system was changed into a contracting system. Under the new arrangements, each level of government makes a contract with the next level up to meet certain revenue and expenditure targets. A typical contract defines a method of revenue-sharing, which could be a percentage share that goes to the center, or a fixed fee plus a percentage share. This contracting system means that the economic interests of each level of government are sharply identified.

Under the fiscal contract system introduced in the early 1980s, the localities have controlled the effective tax rates and tax bases in the following two ways. First, they have controlled tax collection efforts by offering varying degrees of tax concessions. Second, they have found ways to convert budgetary funds into extra-budjetary funds, thus avoiding tax-sharing with
the center. As a result, the center has had to resort to various ad hoc instruments to influence revenue remittance from the localities, and these instruments have led to perverse reactions from the localities. On the expenditure side, the center has failed to achieve corresponding reductions in expenditure when revenue collection has been decentralized. The center's flexibility in using expenditure policy has been seriously undermined by the lack of centrally-controlled financial resources and the heavy burden of "capital constructions." Between 1978 and 1992, the ratio of government revenue to GNP dropped from 31 percent to 17 percent. Increasing deficits became a problem, and the lack of funds for infrastructure investment exacerbated bottlenecks in the economy.

Due to the lack of fiscal resources and policy instruments, the central government has found itself in an increasingly difficult position to achieve the goals of macroeconomic stabilization, regional equalization, and public goods provision. In early 1994, the central government initiated reform of the tax assignment system in an attempt to address these difficulties. Under the new system, the center will recentralize the administration and collection of central and shared-taxes and will obtain a larger share of fiscal resources as a result of the new revenue-sharing formula. The VAT is shared 75-25 (centre-local) and all extra central revenues above the 1992 levels is then shared 70-30. The central government expected to improve significantly its ability to use tax and expenditure policies in macroeconomic management as a result of these steps. Nevertheless, the new system fails to address a number of flaws in the old system: (1) the division of tax bases according to ownership will continue to motivate the center to reclaim enterprise ownership whenever necessary; (2) the division of expenditure responsibility is not yet clearly defined; (3) the new system impedes local autonomy as the localities are not allowed to determine the bases and/or rates for local taxes; and (4) the design of intergovernmental transfers is not fully settled yet. More recently, in 1994 and 1995, the central government also imposed administrative restrictions on investments by provincial and local governments and their enterprises (see Ma, 1995, and World Bank, 1994 for further details) to deal with inflationary pressures. More recently, the introduction of the State Council Document No.29 in 1996 and other measures in 1997 to consolidate budgetary management over extra-budgetary funds, has sharply restricted the authority of local governments especially rural local governments to impose fees and levies to finance own expenditures (see World Bank, 1998).
Fiscal policy coordination - some conclusions

Fiscal policy coordination represents an important challenge for federal systems. In this context, Maastricht guidelines provide a useful framework but not necessary a solution to this challenge. Industrialized countries experience show that federally imposed controls and constraints typically do not work. Instead, societal norms based on fiscal conservatism such as the Swiss referenda and political activism of the electorate play important roles. Ultimately capital markets and bond-rating agencies provide more effective discipline on fiscal policy. In this context, it is important not to backstop state and local debt and not to allow ownership of the banks by any level of government. Transparency of the budgetary process and institutions, accountability to the electorate and general availability of comparative data encourages fiscal discipline.

2.3 Subnational Borrowing

The capital finance needs of developing and transition countries are currently estimated to be in excess of $100 billion a year by the World Bank. Most of these investment needs are for local public infrastructure. Water and sewerage projects account for one-half of these investment needs. Local governments typically command a lion’s share in public sector investments with a low of 30% in developing countries and 70% in industrialized countries. These investments are financed by taxes, charges, reserves, capital grants, borrowing and private equity and debt in concessions/build-operate-transfer (BOT). Borrowing has traditionally served as the most important source of finance of such investments in industrial countries. This is because resort to borrowing enhances intergenerational equity as these projects are long lived and yield returns over several generations, so that the cost should equally be shared over the same generations. Such burden-sharing among generations enables local governments to undertake these large and lumpy investments. Further, this source of finance enables these governments to tailor projects so they are consistent with local needs without being constrained by design choices made by higher level governments. In developing countries, such projects are typically financed by capital grants and on-lending from higher level governments as direct credit market access by local governments is usually not available. Since the capital finance needs of developing
countries are quite large and cannot be met by traditional sources of finance, subnational credit market access represents a major challenge to finance these development needs.

Credit market access at intermediate levels of government (states and provinces) in decentralized federal countries usually carries few restraints. For example domestic and foreign borrowing by states/provinces in US and Canada is not subject to any federally imposed constraints. In the USA, on the contrary, income from state bonds is exempt from federal income taxes. The fiscal conservatism of these governments in financing capital needs primarily arises from limitations imposed by state constitutions and by credit market discipline. Credit market access is, however, closely controlled for both state and local governments in unitary (China, France, Indonesia, UK and Japan) and centralized federal countries (e.g., India, Pakistan and Australia until 1993) and for local governments only in decentralized federal countries (Canada, USA, Germany). In Germany borrowing by local governments is conditional on their cash flow position and subject to Laender approval. This is because an unrestrained access could potentially put the national government at risk in view of the explicit and/or implicit bailout guarantees. Such controls are also needed to limit public demands for capital investment during the boom periods and stimulate such demand during economic downturns.

Passive controls on subnational borrowing take many forms from broader guidelines on allowable ranges for the ratio of debt to revenues and the ratio of debt charges to own-source revenues, to more specific rules such as the “golden rule” for local debt commonly adopted in most federations. Under the golden rule, borrowing is permitted only for capital projects and local governments cannot finance current deficits from this source except to smooth over fluctuations in revenue inflows and outflows within a given fiscal year. This is the practice in Canada, USA, Germany and Switzerland. The European Union has imposed guidelines on deficit and debt limits as discussed earlier and has prohibited central banks from bailing out any governments. In Brazil, Senate Resolution 11 (1993) has restricted new state borrowing by two formal rules: (a) total debt service cannot exceed the state operating surplus during the past year or 15 percent of its revenues, whichever is less; and (b) new borrowing within any 12 month period cannot exceed the level of existing debt service or 27 percent of revenues, whichever is less.
More active controls on such borrowing include centrally specified limits on capital spending by each municipality as in the UK; project submission and approval as in the province of Ontario, Canada; approval for bond finance as in Japan; approval of amount of borrowing and rates as in Denmark (usually restricted to energy and urban renewal projects only) and France; and seeking community mandate on borrowing plans through popular referenda as infrequently done in United States and Canada and routinely required in Switzerland. In developing countries, central controls are even more extensive and crude and most of these countries do not allow credit market access to local governments. In India and Pakistan even borrowing at state level requires central approval as long as states and provinces owe any debt to the federal government. Net federal lending to states in India and provinces in Pakistan in 1996-97 was close to zero or negative as states/provincial debt service payments equaled or exceeded new loans.

In view of the above constraints, local borrowing in most industrial countries is primarily from domestic markets and higher level governments. Only local governments in Canada, Denmark and Norway have foreign debt obligations in access of 10% of their total debt. In developing countries, state and local debt obligations are primarily owed to the central government. A significant degree of tax decentralization and secured sources of revenues through formula-based transfers is, however, opening up possibilities of global market access to subnational governments especially in Latin America. Over the last few months, a handful of local governments ranging from the city of Rio de Janeiro in Brazil to Argentina’s provinces of Buenos Aires and Mendoza have sold hundreds of million dollars of notes to American and European investors and many other governments are eager to issue bonds on the global market (see Table 2). The Buenos Aires bond was oversubscribed when it was floated in April 1997 (see Friedland, 1997).

In a decentralized fiscal environment, subnational government access to credit markets poses significant risks for macro stabilization policies of the national government as the possibility of imposing credit rationing and direct controls are significantly constrained by the constitutional division of powers. These risks are disproportionately higher if there is a strong dependence of subnational governments on central sources of revenues. In those circumstances, a bailout risk would be much higher but the market would fail to capitalize such risks in view of its
anticipation of a central government bailout. For example, past bailout practice and pledging of central transfers in Argentina create expectations on the part of commercial investors that provinces cannot fail. Decentralized fiscal systems rely upon a combination of credit market discipline, moral suasion and agreed upon rules to impose financial discipline on subnational governments. Which system works better is an empirical question worthy of further research. The available evidence nevertheless points to a superior performance of decentralized systems in restraining subnational debt. Central controls as imposed in France, Spain, UK, India, Pakistan and Australia (till 1992 under the old Australian Loan Council) failed to keep subnational debt in check as intergovernmental gaming led to weaker discipline and the possibility of central bailouts encouraged less rigorous scrutiny by the financial sector (see Box 1). Decentralized federations, on the other hand, rely on a combination of guidelines, intergovernmental cooperation and market discipline to keep local government debt within sustainable limits. Intergovernmental cooperation or moral suasion is achieved through executive federalism as in Canada, or multilateral information exchange through the New Australian Loan Council as in Australia, or through bilateral negotiations as in Denmark. The cornerstone of financial discipline under a decentralized fiscal system is the market discipline enhanced by an enabling public policy environment that stresses central bank independence, disengagement of governments from ownership of commercial banks, no bailouts by the central bank or by a higher level government and requirements for public dissemination of information on public finances. Societal conservatism as in Switzerland introduces an added discipline.

The 1996 State debt crisis in Brazil should not have come as a surprise to an informed observer. Brazil opted for a decentralized fiscal constitution but failed to adopt appropriate policies and develop relevant institutions to ensure market discipline in such environment. It allowed states to own commercial banks and borrow from these in a relatively unconstrained fashion while holding open the possibility of a federal government bailout in the event of default. Only recently has Brazil moved to create an enabling framework for credit market discipline for subnational borrowing (see also Ter-Minasian, 1996). Recent initiatives to control state/local debt include: sale or rigid controls over state owned banks; privatization of utilities; downsizing; and restructuring and harmonization of the state value added tax (ICMS) to limit its potential for state industrial policy (see Afonso and Lobo, 1996).
Local access to credit requires well functioning financial markets and credit worthy local governments. These pre-requisites are easily met in industrial countries. In spite of this, traditions for assisting local governments by higher level governments are well established in these countries. An interest subsidy to state and local borrowing is available in the USA as the interest income of such bonds is exempt from federal taxation. Needless to say, such a subsidy has many distortionary effects: it favors richer jurisdictions and higher income individuals; it discriminates against non-debt sources of finance such as reserves and equity; it favors investments by local governments rather than autonomous bodies and it discourages private sector participation in the form of concessions and BOT alternatives. Various US states assist borrowing by small local governments through the establishment of municipal bond banks (MBBs). MBBs are established as autonomous state agencies that issue tax exempt securities to investors and apply the proceeds to purchase collective bond issue of several local governments. By pooling a number of smaller issues and by using superior credit rating of the state, MBBs reduce the cost of borrowing to smaller communities (see World Bank, 1996 and El Daher, 1996).

In Canada, most provinces assist local governments with the engineering, financial and economic analysis of projects. Local governments in Alberta, British Columbia and Nova Scotia are assisted in their borrowing through provincial finance corporations which use the higher credit ratings of the province to lower costs of funds for local governments. Some provinces, notably Manitoba and Quebec, assist in the preparation and marketing of local debt. Canadian provincial governments on occasion have also provided debt relief to their local governments. Autonomous agencies run on commercial principles to assist local borrowing exist in western Europe and Japan. In Denmark, local governments have collectively established a cooperative municipal bank. In UK the Public Works Loan Board channels central financing to local public works.

An important lesson arising from industrial countries' experience is that municipal finance corporations operate well when they are run on commercial principles and compete for capital and borrowers. In such an environment, such agencies allow pooling of risk, better utilize
economies of scale and bring to bear their knowledge of local governments and their financing potentials to provide access to commercial credit on more favorable terms (see McMillan, 1996).

In developing countries, undeveloped markets for long term credit and weak municipal creditworthiness limit municipal access to credit. Nevertheless, the predominant central government policy emphasis is on central controls and consequently less attention has been paid to assistance for borrowing. In a few countries such assistance is available through specialized institutions and central guarantees to jump start municipal access to credit. Ecuador, Indonesia, Jordan, Morocco, Philippines and Tunisia have established municipal development banks/funds/facilities for local borrowing. These institutions are quite fragile, not likely to be sustainable and open to political influences. Interest rate subsidies provided through these institutions impede emerging capital market alternatives. Colombia and the Czech Republic provide a rediscount facility to facilitate local access to commercial credit. Thailand has established a guarantee fund to assist local governments and the private sector in financing of infrastructure investments (see Gourne, 1996).

Concluding Remarks on Subnational Borrowing

In conclusion, the menu of choices available to local governments for financing capital projects are quite limited and available alternatives are not conducive to developing a sustainable institutional environment for such finance. This is because macroeconomic instability and lack of fiscal discipline and appropriate regulatory regimes has impeded the development of financial and capital markets. In addition, revenue capacity at the local level is limited due to tax centralization. A first transitory step to provide limited credit market access to local governments may be to establish municipal finance corporations run on commercial principles and to encourage the development of municipal rating agencies to assist in such borrowing. Tax decentralization is also important to establish private sector confidence in lending to local governments and sharing in the risks and rewards of such lending.
4. Securing An Economic Union

Three dimensions of securing an economic union in a federal system have relevance for macroeconomic governance: preservation of the internal common market; tax harmonization; transfers and social insurance; and regional fiscal equity. These are briefly discussed in the following paragraphs.

(i) Preservation of the Internal Common Market

Preservation of an internal common market remains an important area of concern to most nations undertaking decentralization. Subnational governments in their pursuit of attracting labor and capital may indulge in beggar-thy-neighbor policies and in the process erect barriers to goods and factor mobility. Thus decentralization of government regulatory functions creates a potential for disharmonious economic relations among subnational units. Accordingly, regulation of economic activity such as trade and investment is generally best left to the federal/central government. It should be noted, however, that central governments themselves may pursue policies detrimental to the internal common market. Therefore, as suggested by Boadway (1992), constitutional guarantees for free domestic flow of goods and services may be the best alternative to assigning regulatory responsibilities solely to the center.

The Constitutions of mature federations typically provide: a free trade clause (as in Australia, Canada and Switzerland); federal regulatory power over interstate commerce (as in Australia, Canada, Germany, USA, and Switzerland) and individual mobility rights (as in most federations). In the USA, two constraints imposed by the Constitution on state powers are (see Rafuse, 1991: 3):

- - The commerce clause (article I, & 8): “The Congress shall have power...To regulate commerce with foreign nations, and among the several states, and with the Indian Tribes.”

- - The due process clause (amendment XIV, & 1): “No state shall ... deprive any person of life, liberty, or property, without due process of law.”
The Indonesian Constitution embodies a free trade and mobility clause. But in a large majority of developing countries, internal common market is impeded both by subnational government policies supported by the center as well as formal and informal impediments to labor and capital mobility. For example, in India and Pakistan, local governments rely on a tax on intermunicipal trade (octroi tax) as the predominant source of revenues. In China, mobility rights of individuals are severely constrained by the operation of “hukou” system of household registration which is used to determine eligibility for grain rations, employment, housing and health care.

(ii) Tax harmonization and coordination

Tax competition among jurisdictions can be beneficial by encouraging cost-effectiveness and fiscal accountability in state governments. It can also by itself lead to a certain amount of tax harmonization. At the same time, decentralized tax policies can cause certain inefficiencies and inequities in a federation as well as lead to excessive administrative costs. Tax harmonization is intended to preserve the best features of tax decentralization while avoiding its disadvantages.

Inefficiencies from decentralized decision making can occur in a variety of ways. For one, states may implement policies which discriminate in favor of their own residents and businesses relative to those of other states. They may also engage in beggar-thy-neighbor policies intended to attract economic activity from other states. Inefficiency may also occur simply from the fact that distortions will arise from different tax structures chosen independently by state governments with no strategic objective in mind. Inefficiencies also can occur if state tax systems adopt different conventions for dealing with businesses (and residents) who operate in more than one jurisdiction at the same time. This can lead to double taxation of some forms of income and non-taxation of others. State tax systems may also introduce inequities as mobility of persons would encourage them to abandon progressivity. Administration costs are also likely to be excessive in an uncoordinated tax system (see Boadway, Roberts and Shah, 1994). Thus tax harmonization and coordination contribute to efficiency of internal common market, reduce collection and compliance costs and help to achieve national standards of equity.
European Union has placed a strong emphasis on tax coordination issues. Canada has used tax collection agreements, tax abatement and tax base sharing to harmonize the tax system. The German federation emphasizes uniformity of tax bases by assigning the tax legislation to the federal government. In developing countries, due to tax centralization, tax coordination issues are relevant only for larger federations such as India and Brazil. In Brazil, the use of ICMS (origin based) as a tool for attracting capital inflow from other regions has become an area of emerging conflict among regions. Despite the fact that the Council of States sought to harmonize ICMS base and rates, there is evidence that some of the tax concessions refused by the Council are practiced by many states anyway. States can also resort to tax base reductions or grant unindexed payment deferrals (Longo 1994). For example, some northeastern states have offered fifteen years ICMS tax deferral to industry. In an inflationary environment such a measure can serve as an important inducement for attracting capital from elsewhere in the country (Shah, 1991).

(iii) Transfer payments and Social Insurance

Along with the provision of public goods and services, transfer payments to persons and businesses comprise most of government expenditures (especially in industrialized countries). Some of these transfers are for redistributive purposes in the ordinary sense, and some are for industrial policy or regional development purposes. Some are also for redistribution in the social insurance sense, such as unemployment insurance, health insurance and public pensions. Several factors bear on the assignment of responsibility for transfers. In the case of transfers to business, many economists would argue that they should not be used in the first place. But, given that they are, they are likely to be more distortionary if used at the provincial level than at the federal level. This is because the objective of subsidies is typically to increase capital investments by firms, which is mobile across provinces. As for transfers to individuals, since most of them are for redistributive purposes, their assignment revolves around the extent to which the federal level of government assumes primary responsibility for equity. From an economic point of view, transfers are just negative direct taxes. One can argue that transfers should be controlled by the same level of government that controls direct taxes so that they can be integrated for equity purposes and harmonized across the nation for efficiency purposes. The case for integration at the central level is enhanced when one recognizes the several types of transfers that may exist to
address different dimensions of equity or social insurance. There is an advantage of coordinating unemployment insurance with the income tax system or pensions with payments to the poor. Decentralizing transfers to individuals to the provinces will likely lead to inefficiencies in the internal common market, fiscal inequities and interjurisdictional beggar-thy-neighbor policies.

(iv) Intergovernmental Fiscal Transfers

Federal-state transfers in a federal system serve important objectives: alleviating structural imbalances, correcting for fiscal inefficiencies and inequities, providing compensation for benefit spillouts and achieving fiscal harmonization. The most important consideration is that the grant design must be consistent with grant objectives (see Table A3).

In industrialized countries, two types of transfers dominate: conditional transfers to achieve national standards and equalization transfers to deal with regional equity. In developing countries, with a handful of exceptions, conditional transfers are of pork-barrel (PB) variety and equalization transfers with an explicit standard of equalization are not practiced. Instead, passing-the-buck (PB) transfers in the form of tax-by-tax sharing and revenue sharing with multiple factors are used. With limited or no tax decentralization, PB type transfers in the developing world finance majority of subnational expenditures. In the process, they build transfer dependencies and discourage development of responsive and accountable governance (see Shah, 1997). Ehdaie (1994) provides empirical support for this proposition. He concludes that simultaneous decentralization of the national government’s taxing and spending powers, by directly linking the costs and benefits of public provision, tends to reduce the size of the public sector. Expenditure decentralization accompanied by revenue sharing delinks responsibility and accountability and thereby fails to achieve this result.

In general, PB type transfers create incentives for subnational governments to undertake decisions that are contrary to their long run economic interests in the absence of such transfers. Thus they impede natural adjustment responses leading to a vicious cycle of perpetual deprivation for less developed regions (see also Courchene, 1996 and Shah, 1996 for a further discussion).
Industrial country experience shows that successful decentralization cannot be achieved in the absence of a well designed fiscal transfers program. The design of these transfers must be simple, transparent and consistent with their objectives (see Table A3). Properly structured transfers can enhance competition for the supply of public services, accountability of the fiscal system and fiscal coordination just as general revenue sharing has the potential to undermine it. Experiences of Indonesia and Pakistan offer important insights in grant design. For example, Indonesia’s education and health grants use simple and objectively quantifiable indicators in allocation of funds and conditions for the continued eligibility of these grants emphasize objective standards as to access to these services. Indonesian grants for public sector wages on the other hand, represents an example of not so thoughtful design as it introduces incentives for higher public employment at subnational levels. Pakistan’s matching grant for resource mobilization, similarly rewards relatively richer provinces for additional tax effort. It also calls into question the credibility of federal commitment as the federal government has not been able to meet its commitment arising from this grant program.

The role of fiscal transfers in enhancing competition for the supply of public goods should also not be overlooked. For example, transfers for basic health and primary education could be made available to both public and not-for-profit private sector on equal basis using as criteria, the demographics of the population served, school age population and student enrollments etc. This would promote competition and innovation as both public and private institutions would compete for public funding. Chile permits Catholic schools access to public education financing. Canadian provinces allows individual residents to choose among public and private schools for the receipt of their property tax dollars. Such an option has introduced strong incentives for public and private schools to improve their performances and be competitive. Such financing options are especially attractive for providing greater access to public services in rural areas.

(v) Regional Fiscal Equity

While we have not addressed the regional equity issue due to paucity of data, a few casual observations may be in order. As we noted earlier, regional inequity is an area of concern for decentralized fiscal systems and most such systems attempt to deal with it through the
spending powers of the national government or through fraternal programs. Mature federations such as Australia, Canada and Germany have formal equalization programs. This important feature of decentralization has not received adequate attention in the design of institutions in developing countries. Despite serious horizontal fiscal imbalances in a large number of developing countries, explicit equalization programs are untried, although equalization objectives are implicitly attempted in the general revenue sharing mechanisms used in Brazil, Colombia, India, Mexico, Nigeria and Pakistan. These mechanisms typically combine diverse and conflicting objectives into the same formula and fall significantly short on individual objectives. Because these formulas lack explicit equalization standards, they fail to address regional equity objectives satisfactorily.

Regional inequity concerns are more easily addressed by unitary countries but it is interesting to note that the record of unitary countries in addressing these inequities is uneven and certainly no better than federal countries (For evidence on regional income inequalities, Canada: Shah (1996), China, Tsui (1996), Indonesia (Shah and Qureshi, 1994), Brazil (Shah, 1991), Pakistan (Shah, 1996), India (Rao and Sen, 1995)).

5. Special Challenges Arising from Globalization

Globalization of economic activity poses special challenges to fiscal federalism. With globalization, it is increasingly becoming apparent that nation states are too small to tackle large things in life and too large to address small things. More simply nation states are fast loosing control of some of their areas of traditional control and regulation such as regulation of external trade, telecommunications, financial transactions and corporate taxation. National governments are experiencing diminished control in their ability to control the flow of goods and services, ideas and cultural products. These difficulties are paving way for the emergence of specialized institutions of global governance such as the World Trade Organization, Global Environmental Facility with many more to follow especially institutions to regulate information technology, satellite communications, and international financial transactions. Thus nation states would be confederalizing in the coming years and relinquishing responsibilities in these areas to supranational institutions.
In the emerging borderless world economy, interests of residents as citizens are often at odds with their interests as consumers. In securing their interests as consumers in the world economy, individuals are increasingly seeking localization and regionalization of public decision making to better safeguard their interests. With greater mobility of capital, and loosening of regulatory environment for foreign direct investment, local governments as providers of infrastructure related services would serve as more appropriate channels for attracting such investment than national governments. As borders become more porous, cities are expected to replace countries in transnational economic alliances as people across Europe are already discovering that national governments has diminishing relevance in their lives. They are increasingly more inclined to link their identities and allegiances to cities and regions.

With mobility of capital and other inputs, skills rather than resource endowments will determine international competitiveness. Education and training typically however is subnational government responsibility. Therefore, there would a need to realign this responsibility by giving the national government a greater role in skills enhancement. The new economic environment will also polarize the distribution of income in favor of skilled workers accentuating income inequalities and possibly wiping out lower middle income classes. Since the national governments may not have the means to deal with this social policy fallout, subnational governments working in tandem with national governments would have to devise strategies in dealing with the emerging crisis in social policy.

International trade agreements typically embody social policy provisions. But social policy is typically an area of subnational government responsibility as in Canada, Brazil, India, Pakistan and USA. This is an emerging area for conflict among different levels of government. To avoid these conflicts, a guiding principle should be that to the extent these agreements embody social policy provisions they must be subject to ratification by subnational governments as is currently the practice in Canada.

An overall implication of the above discussion for macroeconomic governance in federal countries is that both globalization and localization imply a diminished direct role of federal government in stabilization and macroeconomic control. But given that there is likely to be an
enhanced role for regimes and subnational governments in the same areas, federal government’s role in coordination and oversight will increase.

5. Some Lessons For Developing Countries

The following important lessons for reform of fiscal systems in developing countries can be distilled from a review of past experiences.

- **Monetary policy is best entrusted to an independent central bank with a mandate for price stability.** Political feasibility of such an assignment improves under federal systems (decentralized fiscal system).

- **Fiscal rules accompanied by “gate keeper” intergovernmental councils/committees provide a useful framework for fiscal discipline and fiscal policy coordination.** In this context, one can draw upon industrial countries’ experiences with ‘golden rules’, Maastricht type guidelines and ‘common budget directives’ to develop country specific guidelines. To ensure voluntary compliance with the guidelines, appropriate institutional framework must be developed. Transparency of the budgetary processes and institutions, accountability to electorate and general availability of comparative data on fiscal positions of all levels of government further strengthens fiscal discipline.

- **The integrity and independence of the financial sector contributes to fiscal prudence in the public sector.** To ensure such an integrity and independence, ownership and preferential access to the financial sector should not be available to any level of government. In such an environment capital markets and bond rating agencies would provide an effective fiscal policy discipline.

- **To ensure fiscal discipline, governments at all levels must be made to face financial consequences of their decisions.** This is possible if the central government does not backstop state and local debt and the central bank does not act as a lender of last resort to the central government.

- **Societal norms and consensus on roles of various levels of governments and limits to their authorities are vital for the success of decentralized decision making.** In the absence of such norms and consensus, direct central controls do not work and intergovernmental gaming leads to dysfunctional constitutions.
• *Tax decentralization is a pre-requisite for subnational credit market access.* In countries with highly centralized tax bases, unrestrained credit market access by subnational governments poses a risk for macro stabilization policies of the national government as the private sector anticipates a higher level government bailout in the event of default and does not discount the risks of such lending properly.

• **Higher level institutional assistance may be needed for financing local capital projects.** This assistance can take the form of establishing municipal finance corporations run on commercial principles to lower the cost of borrowing by using the superior credit rating of the higher level government and municipal rating agencies to determine credit worthiness.

• *An internal common market is best preserved by constitutional guarantees.* National governments in developing countries have typically failed in this role.

• **Intergovernmental transfers in developing countries undermine fiscal discipline and accountability while building transfer dependencies that cause a slow economic strangulation of fiscally disadvantaged regions.** Properly designed intergovernmental transfers on the other hand can enhance competition for the supply of public goods, fiscal harmonization, subnational government accountability and regional equity. Substantial theoretical and empirical guidance on the design of these transfers is readily available.

• **Periodic review of jurisdictional assignments is essential to realign responsibilities with changing economic and political realities.** With globalization and localization, national government's direct role in stabilization and macroeconomic control is likely to diminish over time but its role in coordination and oversight is expected to increase as regimes and subnational governments assume enhanced roles in these areas. Constitutional and legal systems and institutions must be amenable to timely adjustments to adapt to changing circumstances.

• **Finally, contrary to a common misconception, decentralized fiscal systems offer a greater potential for improved macroeconomic governance than centralized fiscal systems.** This is to be expected as decentralized fiscal systems require greater clarity in the roles of various players (centers of decision making) and transparency in rules that govern their interactions to ensure a fair play.
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Box 1: Approaches to Sub-national Capital Finance

Pakistan: Pakistan's Annual Development Plan (ADP) process typifies a highly centralized system. The ADP process begins with a municipality's submission of a project proposal to the provincial government, where it is subjected to technical review; if technically approved, it is then included in a larger pool of projects eligible for financing. Financing decisions are made annually, and begin with an estimate of overall resource availability by the central government's ministry of finance. The provincial government then makes a tentative match of resources with projects; then forwards it recommendations to the central Government's annual plan coordination committee; which approves size and sectoral allocation of the overall package, and then submits it to the national economic council, presided over by the president. This lengthy process does succeed in eliminating technically unsound projects, and matches resources to projects, but incorporates no mechanism for weighing the degree of local commitment to investments projects.

Mexico: Mexico's National Solidarity Program (PRONASOL) is funded from an earmarked share of the national budget. Allocations are distributed among states by formula, with a fixed proportion earmarked for allocation by mayors. Allocations to municipalities are based in part upon political considerations. But within a given recipient municipio, the allocation of funds among projects draws upon a well developed system of negotiation between the mayor and community groups, in which PRONASOL funding is made conditional upon the community's willingness to provide counterpart contributions in cash or in kind. While mayors have the latitude to vary the terms of each project agreement, the matching requirement is universal.

Colombia: Colombia's municipal credit institution, Financiera de Desarrollo Territorial (FINDETER), does not lend directly to municipal governments but operates as an autonomous discount agency to private sector and state-owned commercial banks that make the loans, appraise the projects, and monitor performance. Under the control of the finance ministry, it has been relatively insulated from political pressures. The system's funding does not rely on government budgetary appropriation but rather on bonds, recycling of it loans, and foreign credits from bilateral and multi-lateral sources.

Canada: Provincial governments have free and uncontrolled access to borrowing on domestic and international markets. Municipal borrowing is subject to provincial scrutiny and approval. Once approval is granted, municipalities are free to borrow from the private sector. Although no additional role is required, provincial authorities can provide a variety of additional assistance including loan guarantees, transfers to cover loans, assistance in marketing of municipal debt, and loans. Some provinces borrow for the purpose of relending to small local governments.

United States: Both state and local governments have unrestricted access to capital markets. Municipalities, or municipal agencies, issue bonds. Creditworthiness of municipal offerings is determined by private rating companies. Federal and state governments promote bond issues through income tax exemptions on interest payments.

Australia: The Australia Loan Council (ALC), established in 1927 as a central credit allocation mechanism for sub-national borrowing was seen as an outmoded institution for the 21st century. The ALC now works as a coordinating agency for sharing information on federal-state-local fiscal positions and macroeconomic strategies. States are required to justify their borrowing plans for consistency with own fiscal needs and overall macro strategy for the nation as a whole. If these requirements are met, state are free to access financial markets for raising the required funds.

European Union: Maastricht Treaty imposes two quantitative guidelines to ensure price stability oriented monetary policy. These are: (a) the deficit must be less than 3% of GDP and (b) the debt/GDP ratio must not exceed 0.6 (60%). Further in the event of default, there should not be any bailout by member central banks or the European Central Bank.

Sources: World Bank (1994, July), and Shah (forthcoming)
Table 1: Correlation of the Decentralization Index with Governance Quality Indicators
(sample size: 80 countries)

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Pearson Correlation Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizen Participation</td>
<td>Political Freedom</td>
<td>0.599**</td>
</tr>
<tr>
<td></td>
<td>Political Stability</td>
<td>0.604**</td>
</tr>
<tr>
<td>Government Orientation</td>
<td>Judicial Efficiency</td>
<td>0.544**</td>
</tr>
<tr>
<td></td>
<td>Bureaucratic Efficiency</td>
<td>0.540**</td>
</tr>
<tr>
<td></td>
<td>Absence of Corruption</td>
<td>0.532**</td>
</tr>
<tr>
<td>Social Development</td>
<td>Human Development Index</td>
<td>0.369*</td>
</tr>
<tr>
<td></td>
<td>Egalitarianism in Income Distribution</td>
<td>0.373*</td>
</tr>
<tr>
<td></td>
<td>(inverse of Gini coefficient)</td>
<td></td>
</tr>
<tr>
<td>Economic Management</td>
<td>Central Bank Independence</td>
<td>0.327*</td>
</tr>
<tr>
<td></td>
<td>Debt Management Discipline</td>
<td>0.263*</td>
</tr>
<tr>
<td></td>
<td>Openness of the Economy</td>
<td>0.523**</td>
</tr>
<tr>
<td>Governance Quality Index</td>
<td></td>
<td>0.617**</td>
</tr>
</tbody>
</table>

* significant at the 0.05% level (2-tailed test)
** significant at the 0.01% level (2-tailed test)

Source: Huther and Shah (1998)
Table 2. Recent Latin ‘Munis’

<table>
<thead>
<tr>
<th>Issuer (country)</th>
<th>Value (US $million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Done Deals:</strong></td>
<td></td>
</tr>
<tr>
<td>City of Rio de Janeiro (Brazil)</td>
<td>$125</td>
</tr>
<tr>
<td>Buenos Aires Province (Argentina)</td>
<td>$145</td>
</tr>
<tr>
<td></td>
<td>$170</td>
</tr>
<tr>
<td>Mendoza Province (Argentina)</td>
<td>$150</td>
</tr>
<tr>
<td><strong>In the Pipeline</strong></td>
<td></td>
</tr>
<tr>
<td>Neuquen Province (Argentina)</td>
<td>$300</td>
</tr>
<tr>
<td>Rio Negro Province (Argentina)</td>
<td>$230</td>
</tr>
<tr>
<td>Tierra del Fuego Province (Argentina)</td>
<td>$75</td>
</tr>
<tr>
<td>State of Alagos (Brazil)</td>
<td>$160</td>
</tr>
<tr>
<td>State of Minas Gerais (Brazil)</td>
<td>$250</td>
</tr>
<tr>
<td>City of Bogota (Colombia)</td>
<td>$150</td>
</tr>
<tr>
<td>City of Lima (Peru)</td>
<td>$150</td>
</tr>
</tbody>
</table>

Source: Friedland (1997).
## Box. Principles and Better Practices in Grant Design

<table>
<thead>
<tr>
<th>Grant Objective</th>
<th>Grant Design</th>
<th>Better Practices</th>
<th>Practices to avoid</th>
</tr>
</thead>
</table>
| To bridge fiscal gap | - Reassign responsibilities  
- Tax abatement  
- Tax base sharing | Tax abatement in Canada and  
tax base sharing in Canada,  
Brazil and Pakistan | Deficit grants  
Tax by tax sharing as in India |
| To reduce regional fiscal disparities | General Non-matching Fiscal capacity equalization transfers | Fiscal equalization programs of Australia, Canada and Germany | General revenue sharing with multiple factors as in Brazil |
| To compensate for benefit spillovers | Open-ended matching transfers with matching rate consistent with spillout of benefits | RSA grant for teaching hospitals | |
| Setting national minimum standards | Conditional non-matching block transfers with conditions on standards of service and access | Indonesia roads and primary education grants  
Colombia and Chile education transfers | conditional transfers with conditions on spending alone  
ad hoc grants |
| Influencing local priorities in areas of high national but low local priority | Open-ended matching transfers (with preferably matching rate to vary inversely with fiscal capacity) | Matching transfers for social assistance as in Canada | ad hoc grants |
| Stabilization | capital grants provided maintenance possible | Limit use of capital grants and encourage private sector participation by providing political and policy risk guarantee | stabilization grants with no future upkeep requirements |

The Federal-Provincial Fiscal Arrangements

Tax Harmonization
- Tax Collection Agreements
- Allocation Rules
- Reciprocal Taxation

Fiscal Transfers
- E.P.F.
- Equalization
- C.A.P.
- Other

Fiscal and Economic Policy
- F.M.C.'s
- Meetings of Finance Ministers
- Committees of Officials
Figure 1 (b)

Federal-Provincial Fiscal Arrangements Committees

Ministers of Finance and Provincial Treasurers
Chaired by
the Minister of Finance

Continuing Committee of Officials on Fiscal and Economic Matters
Chaired by
the Deputy Minister of Finance

Sub-committee on Income Taxation

Fiscal Arrangements Sub-committee

Working Group on Sales Tax Reform

Technical Sub-committee on Equalization

Economic and Fiscal Data Sub-committee

Technical Sub-committee on Pensions (CPP)
Figure 2

The Anatomy of Australian Financial Federalism

- National Fiscal Outlook
  - Commonwealth Grants Commission
    - Recommended Grant Reactivities
  - Commonwealth, States and Territories
    - LCA Nominations
  - PREMIERS’ CONFERENCE
    - Sets aggregate pool of Commonwealth Grants
    - Approves or modifies CGC proposed shares of pool
  - LOAN COUNCIL
    - Assesses Macro Stance
    - Approves or modifies LCA nominations
  - Loan Council Allocations
    - Commonwealth Grants
      - State and Territory Budgets
        - Deficit / Surplus
      - Loan Council Allocations
        - Commonwealth Grants Expenditures
        - Commonwealth Budget
          - Deficit / Surplus
          - Reconciliation with Loan Council Allocations

Note: LCA Nominations = Loan Council Allocation Nominations
Central Bank Independence

![Graph showing the relationship between Central Bank Independence Index and Subnational Expenditures (as % total)].

- Countries with higher Central Bank Independence tend to have lower subnational expenditures as a percentage of total expenditures.
- Countries such as Switzerland, the United States, and the Netherlands show relatively low subnational expenditures with high independence indices.
- Countries like India and Brazil have high subnational expenditures with lower independence indices.

Key: Switzerland, United States, Canada, Netherlands, Argentina, Australia, Mexico, Malaysia, Finland, Sweden, United Kingdom, Indonesia, Iran, Malawi, Belgium, Zimbabwe, Poland, and Brazil.
<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Date</th>
<th>Contact for paper</th>
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<tbody>
<tr>
<td>WPS1982 Analyzing Financial Sectors in Transition: With Special Reference to the Former Soviet Union</td>
<td>Alan Roe, Paul Siegelbaum, Tim King</td>
<td>September 1998</td>
<td>D. Cortijo 84005</td>
</tr>
<tr>
<td>WPS1983 Pension Reform in Small Developing Countries</td>
<td>Thomas Charles Glaessner, Salvador Valdés-Prieto</td>
<td>September 1998</td>
<td>M. Navarro 84722</td>
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<td>WPS1984 NAFTA, Capital Mobility, and Mexico’s Financial System</td>
<td>Thomas Charles Glaessner, Daniel Oks</td>
<td>September 1998</td>
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<td>WPS1985 The Optimality of Being Efficient: Designing Auctions</td>
<td>Lawrence M. Ausubel, Peter Cramton</td>
<td>September 1998</td>
<td>S. Vivas 82609</td>
</tr>
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<td>WPS1987 Political Economy and Political Risks of Institutional Reform in the Water Sector</td>
<td>Ariel Dinar, Trichur K. Balakrishnan, Joseph 'Warming'</td>
<td>September 1998</td>
<td>F. Toppin 30450</td>
</tr>
<tr>
<td>WPS1990 The East Asia Crisis and Corporate Finances: The Untold Micro Story</td>
<td>Michael Pomerleau</td>
<td>October 1998</td>
<td>N. Dacanay 34068</td>
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<td>WPS1996 Namibia’s Social Safety Net: Issues and Options for Reform</td>
<td>Kalinidhi Subbarao</td>
<td>October 1998</td>
<td>P. Lizarondo 87199</td>
</tr>
<tr>
<td>WPS2000 GATT Experience with Safeguards: Making Economic and Political Sense of the Possibilities that the GATT Allows to Restrict Imports</td>
<td>J. Michael Finger</td>
<td>October 1998</td>
<td>L. Tabada 36896</td>
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<tr>
<td>WPS2001 Measuring the Dynamic Gains from Trade</td>
<td>Romain Wacziarg</td>
<td>November 1998</td>
<td>S. Crow 30763</td>
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<tr>
<td>WPS2002 Accounting for Toxicity Risks in Pollution Control: Does It Matter?</td>
<td>Susmita Dasgupta, Benoit Laplante, Craig Meisner</td>
<td>November 1998</td>
<td>Y. D’Souza 31449</td>
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<tr>
<td>WPS2003 Thailand’s Corporate Financing and Governance Structures</td>
<td>Pedro Alba, Stijn Claessens, Simeon Djankov</td>
<td>November 1998</td>
<td>R. Vo 33722</td>
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