FISCAL ASPECTS OF EVOLVING FEDERATIONS*

Issues for Policy and Research

by

David E. Wildasin[†]
Department of Economics
Vanderbilt University
Nashville, TN 37235
USA

August, 1996

Abstract

There has been a resurgence of interest, in many parts of the world, in problems of multi-level government finance. Recent and ongoing political and economic developments raise questions about the role of the nation, subnational governments, and supranational public authorities in the provision and financing of public-sector programs. This chapter presents a selective survey of some of these developments and identifies issues for research.

---

* This paper is to appear as a chapter in D.E. Wildasin (ed.), *Fiscal Aspects of Evolving Federations* (Cambridge University Press).

† Telephone: +1 615 343 2468. Fax: +1 615 343 8495.
Internet: wildasin@ctrvax.vanderbilt.edu.

FISCAL ASPECTS OF EVOLVING FEDERATIONS*

Issues for Policy and Research

I. Introduction

There has been a resurgence of interest, in many parts of the world, in problems of multi-level government finance. Recent and ongoing political and economic developments raise questions about the role of the nation, subnational governments, and supranational public authorities in the provision and financing of public-sector programs. This chapter provides a selective review of policy issues and recent trends in a number of different countries and regions.

Problems of fiscal centralization and decentralization by their nature tend to have important political and institutional dimensions that vary from one country or region to another. Shifting the locus of fiscal responsibility among levels of government may occur relatively incrementally, as in stable federations like the US, or they may occur with dramatic speed, as in the disintegration of the Soviet Union or the unification of Germany. In all cases, however, there are specific historical and institutional factors that channel the process of fiscal adjustment within the broader context of overall economic and political change. Widely varying political and economic systems, levels of economic development, and legal, constitutional, and fiscal traditions form the milieu within which the responsibilities of different levels of government are determined. If it is difficult to appreciate fully the importance and interactions of all of these factors for any single country, it is probably impossible to do so for many countries taken together. Yet, precisely because each country's fiscal institutions are dependent on local circumstances, analysts and policymakers can potentially benefit greatly from the broader perspective that can be obtained from study of the problems of intergovernmental fiscal relations encountered in other countries and regions. The institutions of fiscal federalism vary widely across the world, and it is worthwhile trying to cull what insights we can from observation and comparison of the divergent experiences of different countries.[1]

The present chapter attempts, within a short space, to highlight a few of the issues of fiscal federalism, intergovernmental fiscal relations, and fiscal decentralization that have emerged throughout the world in recent years. Section II discusses the developed countries of Western Europe and North America, regions in which basic economic and political

institutions are relatively stable and policy changes occur in a comparatively orderly fashion. This section draws attention to some of the important fiscal dimensions of economic integration in the EU and to some of the longstanding tensions in the mature federations of the US and Canada. Section III examines the problems of fiscal federalism in several important developing and "transition" countries. Here the institutional background is much less settled, and the pressing problems of fiscal structure take on a somewhat different character. A survey of recent developments in India, China, Brazil, Argentina, and Russia shows that the public finances of central and subnational governments in each of these important countries have undergone significant changes in recent years and that the ongoing evolution of the fiscal institutions and responsibilities of different levels of government will play a major role in the economic and political development of these countries in the coming decades. Based on the discussion of Sections II and III, Section IV identifies some possible topics for future research.

II. Fiscal Federalism: European and North American Perspectives

The European Union. In Western Europe, the process of economic integration among the countries of the European Union raises numerous questions of fiscal coordination among member states. The taxation of multi-national enterprises and the administration of national value-added taxes in an EU free of fiscal frontiers present immediate practical problems (see, e.g., Fehr *et l.* [1995] and Tanzi [1995], and references therein, for recent discussions of VAT taxation and the taxation of corporations and capital returns in a multi-national setting). Furthermore, as labor and capital markets within the EU (and between EU and non-EU countries) become increasingly integrated, fiscal externalities associated with national-level redistributive policies are likely to become more important. Oates (1968) and others have argued that the redistributive functions of the public sector are not within the proper sphere of responsibilities of "lower-level" governments, that is, governments that are open with respect to the markets for labor and capital. Traditionally, the "central" government to which redistributive functions would be assigned is conceived to be a national government. When factors of production become increasingly mobile across international boundaries, however, the government of a single country is no longer a "central" government in the relevant sense. One must therefore ask whether the extensive national-level redistributive programs that have developed over the course of the present century in the EU (and elsewhere) will remain viable over time. If it is possible to perpetuate them, will it be desirable to do so? Does multinational policy coordination, perhaps through the further development of EU-level institutions, provide an appropriate

mechanism through which redistributive and other fiscal policies can be organized?[2]

Although the financing of agricultural subsidies has presented major and at times almost crippling challenges to the EU, EU regional development and social fund expenditures have increased over time. At least until recently, it was not difficult to imagine that still more policies of this type might be shifted to the supranational level in the longer term. The Single Market, the Maastricht Treaty, the expansion of EU membership to include Austria, Finland, and Sweden (and the prospective accession of some of the rapidly reforming countries of eastern Europe) seemed to exemplify a powerful momentum in favor of European policy integration. However, attainment of the Maastricht timetable for harmonization of monetary and fiscal policies now seems to be very unlikely for most EU member states. Notably, it appears that the most stubborn obstacles to *monetary* union, at least as envisaged in the Maastricht treaty, arise from the difficulties that countries will face in meeting the *fiscal* convergence criteria, particularly those restricting the size of government deficits and debt-to-GDP ratios. For instance, the requirement that the national debt should not exceed 60% of GDP is certainly out of reach for countries like Belgium (the seat of many EU institutions) and Italy (one of the large EU countries, along with Germany, France, and the UK), countries whose current debt/GDP ratios exceed 100%.

Failure to meet the specific fiscal convergence criteria set out in the Maastricht Treaty would not appear, however, to present any fundamental obstacle to monetary union. The criteria, after all, are somewhat arbitrary, and it is intrinsically problematic to tie a qualitative event – a country's accession to a monetary union – to a quantitative economic indicator. If the debt/GDP ratio matters at all for monetary stability, it matters in a quantitative way, and there is no economically-meaningful critical value around which a country's accession to a monetary union will have qualitatively divergent impacts. Indeed, it is interesting to note in this context that Belgium, with one of the highest debt/GDP rations in the EU, has long had an effective monetary union with Luxembourg, which has one of the lowest. "Flexible" interpretation of the fiscal criteria may well allow EMU to proceed in any case (as discussed, e.g., in Artis [1996]). The important lesson to draw from this experience is probably not that monetary union is hard to achieve but rather that individual EU countries find it extremely difficult to impose restraints on social and redistributive policies for the sake of meeting obligations to other EU member states. The problems of monetary union à la Maastricht, in other words, cast doubt on the feasibility (and perhaps the desirability) of harmonization of fiscal policies and the social and distributional objectives that they embody.

Even while the proper role of EU-level fiscal institutions is debated, the organization of fiscal affairs within EU member states is undergoing substantial change. Efforts have been underway in France, Italy, and Spain to decentralize political and fiscal authority (Gérard-Varet [1994], Owens and Panella [1991], Goodspeed [1994]). The internal economic integration accompanying German unification, including particularly freedom of labor and capital mobility within the national market, has required a strong central government response due to the uneven levels of development between East and West coupled with a commitment to uniform fiscal treatment under generous programs of social benefits (see Sinn and Sinn (1992) for further discussion). The structure of local government finance in the United Kingdom, and in particular the attempt to reduce local reliance on property taxes by shifting to poll taxes has been the subject of vigorous controversy (Besley *et l.* [forthcoming]).

Canada. While issues of fiscal centralization and decentralization are attracting new attention in the EU, they have been of enduring concern in established federations such as the US and Canada.[3] Equalization of fiscal status has been a longstanding goal of Canada's very substantial programs of grants from the national to the provincial governments, and the need to understand better the equity and efficiency implications of these programs has stimulated a steady stream of research on the economics of intergovernmental transfers.4 Of course, the separatist movement in Quebec heightens sensitivity to intergovernmental fiscal relations in Canada and may yet result in a fundamental political restructuring, or even disintegration, of the Canadian federation, changes which would likely necessitate profound fiscal restructuring as well. The disposition of national liabilities and assets (e.g., the national debt, the public pension system, public lands and corporations) and the coordination of health and social welfare policies among the provinces would present serious challenges to policymakers in a politically and fiscally fragmented Canada.[5]

The United States. In the US, shifts in the balance of fiscal authority between the Federal, state, and local governments tend to mirror basic changes in domestic policy. The period since the 1930s has witnessed substantial growth in Federal government involvement in redistributive policies including public pensions and transfers to the poor. While the Federal government plays a major role, independently of states and localities, in the provision of retirement income and health care for the elderly, much of its participation in other redistributive programs, especially those aimed at providing cash and health benefits for the poor (AFDC and Medicaid) has taken the form of matching grants to state governments. These transfers have been accompanied by significant restrictions

on the form and administration of the programs they support, contributing to calls for "fundamental" reforms that would convert Federal support to lump-sum assistance to the states with minimal restrictions on their use. Since Federal matching rates lower the cost to state governments of assisting the poor by 50% or more, such reforms could result in significant reductions in total redistributive spending. On the other hand, it is possible that decentralization of redistributive programs would result in greater program effectiveness, for example through better targeting of benefits, gains in administrative efficiency, or basic program redesign. There is certainly considerable dissatisfaction with the apparent inability of existing welfare programs to achieve significant progress in poverty eradication, and it is possible that the diversity of policies that would likely emerge from a more decentralized policy regime may uncover useful information about how to improve policy design and implementation.

The division of fiscal responsibilities between state and local governments has also been the subject of continuing reassessment in the US. The provision of primary and secondary education has been a principal function of local governments in the US throughout the present century, and the persistence of significant variations in levels of provision among localities testifies to substantial differences in demand for education within the population. A large fraction of the US population lives in metropolitan areas which contain dozens of individual localities within commuting distance of core cities, so that households can obtain quite diverse levels of public education provision through their residential choices.[6] Since education is an important determinant of lifetime well-being, however, equity considerations can conflict with the unequal provision of education that allocative efficiency would require.[7] Indeed, courts in many states have held that inequalities in the level of fiscal resources available to different localities for the finance of education violate state (though not Federal) constitutional requirements for equal protection or treatment (see, e.g., Inman and Rubinfeld [1979]). It is one thing to declare a system of finance to be inequitable, however, and something else again to find remedies that both effective and efficient. As discussed by Nechyba (this volume), the complex interactions between underlying economic inequalities, household mobility, housing markets, and voting behavior imply that policy interventions, aimed for instance at school finance, are likely to have consequences that are far from obvious.

Whether in response to court mandates or simply as a matter of policy, state government transfers to local school authorities have grown substantially throughout the postwar period. In the eyes of critics, however, state government involvement in local education

has contributed to an increase in bureaucratization, the possible capture of education bureaucracies by teacher's unions, and perverse performance and fiscal incentives for local school authorities. In a number of states, parents are being given greater freedom to choose which public schools their children attend. Providing vouchers which could be applied to the cost of either private or public schooling would carry this type of reform a step further. Note that partial or complete privatization of schools, which would constitute a step in the direction of greater *decentralization* in education *provision*, could be accompanied by generous state support for vouchers, which would constitute a step in the direction of greater *centralization* of education *finance*. This illustrates the fact that education, like many public sector programs, bundles together different public sector functions, such as the provision of certain goods and services and the attainment of an equitable distribution of income. Some of these functions, such as redistribution, may be best suited to higher-level governments, while others, such as school administration or curriculum design, may be best left to local authorities or to the private sector. The bundling of functions in a single program may thus give rise to tensions between fiscal centralization and decentralization and to complex interactions between levels of government in the form of intergovernmental transfers.

III. Fiscal Federalism in LDCs and Transition Economies

While much of the controversy in the US over the proper roles of different levels of government has revolved around issues of equity and allocative efficiency, recent trends toward fiscal decentralization in many third-world and transition economies have focused new attention on macroeconomic stability. When Musgrave (1959) identified macroeconomic stabilization as one of the three principal branches of the public household (in addition to the allocative and distributive branches), many economists were convinced that fiscal policy could play an important and perhaps decisive role in managing short-run aggregate-demand fluctuations so as to achieve both price stability and full employment. From the traditional Keynesian perspective, the conventional wisdom has been that the manipulation of fiscal policy for short-run demand-management purposes should be left to the central government rather than to local governments (see, e.g., Oates [1968]). This conventional wisdom remains relatively intact, at least insofar as Keynesian views on short-run macroeconomic policy survive at all. Nevertheless, new concern has arisen about the macroeconomic effects of fiscal decentralization, not because of new views about the effects of local or provincial government fiscal policy on the business cycle but rather because of worries that fiscal decentralization may contribute to structural deficits and fiscal imbal-

ance. Even in the absence of moves toward fiscal decentralization, it has proven difficult in many countries to control aggregate public sector borrowing; in turn, heavy public borrowing has increased the pressure on central banks to engage in inflationary finance. The question is whether fiscal decentralization tends to accentuate or to mitigate these sorts of problems. Where traditions of state/provincial and local government fiscal responsibility are weak, where the institutions of political control and accountability are immature, and where administrative professionalism and control are poorly developed, there may be a risk that lower-level governments may abuse or mismanage their borrowing authority, leading to aggregate fiscal imbalance with accompanying adverse macroeconomic consequences (Bird *et l.* [1995a], Prud'homme [1995], Tanzi [1996]). A discussion of some important LDCs and transition economies will illustrate how fiscal federalism issues have become entangled in problems of overall macroeconomic policy management. The following paragraphs outline some of the policy issues that have arisen recently in several important countries, including India, Argentina, Brazil, China, and Russia.

India. Beginning in the late 1980s, India began serious efforts to limit the growth of government debt. The central government has made substantial progress in this regard but there are increasing fiscal difficulties at the state government level (The World Bank [1995a]). India has an established federal system and highly elaborated programs of intergovernmental revenue sharing and fiscal transfers. Both the Planning Commission and the Finance Commission provide extensive grants to state governments in order to promote development and fiscal equalization. This system has come under criticism for creating perverse and conflicting incentives for state governments and for failing to promote equity objectives (Rao and Agarwal [1994], Murty and Nayak [1994]). Of late, state government borrowing from the central government has begun to create serious fiscal stress: for a number of states, the cost of debt service now amounts to 15% or more of state government expenditures (The World Bank [1995a]). In part, this seems to be the consequence of increases in the interest rates at which state governments are allowed to borrow from the central government. Although these rates are no doubt still below the level at which state governments could borrow on external markets, they have been brought closer to market rates, reducing the implicit central-government subsidy to state government borrowing. Like any reduction in central government transfers to states, this has the immediate effect of reducing the central government deficit while raising deficits at the state level. As a result, state governments now face new pressures to strengthen their revenues and cut expenditures. One consequence has been a push toward privatization of public enterprise in the electricity, water, and transportation sectors, a move which typically allows these en-

terprises to restructure employment and other aspects of their operations more freely than could occur in the public sector and which also allows them to raise capital more easily from market sources. It also seems likely that the states will introduce value-added taxes in order to generate additional revenue, a move which raises issues of tax harmonization and coordination rather similar to those faced in the EU context (Burgess *et l.* [1995]).

Raising the interest rates charged to state governments should reduce the incentives for state governments to resort to deficit financing and may help to facilitate liberalization of the financial sector of the economy generally. Reductions in the explicit and implicit subsidies to state governments may also help the central government to control its own borrowing. The states of India, however, continue to face many demands for public expenditures for economic development and poverty reduction. The attempt to meet these demands was a principal motivation for the establishment of the system of grants and loans to the states in the first place. While many states may be able to strengthen their own-source revenues, substantial disparities among the states will persist. Some states may face fiscal crises as they attempt to undertake expenditures in excess of their revenues, which may prompt fiscal and regulatory interventions by the central government; other states, in cutting expenditures (for example, for basic health and education), may also produce significant political pressures for assistance from the center. In such circumstances, the question arises as to how intergovernmental transfers and borrowing arrangements can be structured so as to provide states with "adequate" fiscal resources without weakening their incentives for fiscal discipline? A sufficiently high level of transfers from the center to the states would obviate any need for state borrowing, but this might just shift fiscal imbalances back to the center. The resolution of these and related issues are likely to occupy a prominent place in discussions of overall macroeconomic management, development, and income distribution in India for some time to come.

Latin America

Macroeconomic considerations have also figured prominently in discussions of fiscal federalism in several countries in Latin America. A number of Latin American countries have undergone significant recent changes in the structure of intergovernmental fiscal relations and in the comparative roles of different levels of government. Broadly speaking, one might characterize the region as a whole as moving toward increased reliance on lower-level governments to manage public expenditures; in some cases, this shift has been accompanied by increases in local government revenue capacity, but in other cases the increased spending by lower-level governments has been financed mainly by transfers (either

through grants or through shared taxes) from higher-level governments. The experience has been quite varied, as described for instance in a recent report of the Inter-American Development Bank (1994) (hereafter IADB) which discusses trends and pitfalls in fiscal decentralization in the region as a whole and presents case studies of Argentina, Colombia, Chile, and Peru.[8]

In Peru, for example, the constitution of 1979 included provisions for the establishment of regional governments, but these provisions were only implemented by 1990, and they were reversed by a constitutional reform in 1993. By contrast, constitutional reforms in Chile which were meant to shift fiscal responsibilities to lower-level governments seem actually to have had a real effect: central government spending as a share of total public spending fell from 95% in 1970 to 87% in 1980, while the expenditure share of local government rose from 5% to 13%. (It is noteworthy, however, that increased local spending has not been accompanied by a corresponding increase in own-source revenue; central government revenues accounted for over 97% of all public-sector revenues both in 1970 and 1980.) Colombia has seen a more steady growth of local fiscal responsibilities over time, with local spending rising from about 10% to about 17% of total public spending between 1980 and 1992 and local own-source revenues increasing from 5.6% to 7.3% of total government revenues.

Argentina. In the case of Argentina, problems of fiscal federalism are closely intertwined with the country's problems of macroeconomic and monetary stability. Throughout the 1980s the central government resorted to deficit financing of public expenditures, and the central bank, in monetizing these deficits, increased inflationary pressures to extraordinary levels. Resolution of the fiscal crisis of the central government and the establishment of effective controls on monetary growth have been thus been critical issues for recent economic policy in Argentina, and indeed the country has made substantial progress on these problems in the 1990s (The World Bank [1993]). In this environment of macroeconomic instability, there has been a significant shift of revenue and expenditures to the provincial and local governments. This shift resulted in part from reforms in the late 1980s that mandated that a large fractions (over 50%) of the revenues from major central government taxes be passed along to the provinces, while discretionary grants from the center to the provinces were reduced. In 1983, central government expenditures accounted for around 52% of total government spending, but by 1992 this had fallen to about 43%; provincial spending rose from 30% to 37% of government spending and local spending rose from 5.4% to 8.6% over the same period (IADB). Own-source revenues for each level of govern-

ment remained roughly steady over this period, thus reflecting a large increase in central transfers to the provinces.

Improved management of Argentina's fiscal and monetary crises has thus coincided with substantial fiscal decentralization. There is concern, however, that transfers to provincial governments have grown too quickly and that there is insufficient reliance on own-source financing to encourage accountable and responsible spending at the provincial level (The World Bank [1993]). In addition, provincial government deficits have been financed in part by provincial banks, many of which have gone bankrupt. The central bank's policy of managing these banks and absorbing their losses provided provincial governments with a circuitous mechanism of inflationary finance, weakening incentives for fiscal discipline at the provincial level. Recent reforms of the financial sector and of central bank policymaking are designed in part to avoid these pitfalls. Argentina presents an interesting example of a country where financial sector and monetary reform, central government fiscal adjustment, and the restructuring of intergovernmental fiscal relations have been closely interrelated.

Brazil. Brazil is another country where problems of deficit finance by subnational governments have come to the fore recently. Brazil is a federation in which both state and local governments have traditionally played an important fiscal role. Substantial functional responsibilities are assigned to state and local governments by a 1988 constitution, which also provides for fiscal transfers from the center to the state and local governments (Prud'homme [1989]). A significant fiscal role for lower-level governments antedates the new constitution, however: state and local government own-revenues have typically accounted for 40–50% of total government revenue since the late 1950s (Shah [1991], Table 5), and a substantial share of central government revenue has been transferred to lower-level governments through grant and revenue-sharing programs throughout this period. Interestingly, state governments in Brazil have utilized a value-added tax as a major source of own-revenue; this tax has yielded revenues of about 5% of GDP in recent years, accounting for around one-fourth to one-third of total tax revenue collected in the country as a whole.

The recent evolution of fiscal federalism in Brazil cannot be properly assessed, however, without taking into account the relationship between lower-level governments, public enterprise, and the banking sector. Like Argentina, Brazil has experienced extraordinarily high rates of inflation in the recent past. Monthly inflation rates above 10% were commonplace during 1983–85, fell significantly during 1986, and then returned to double-digit levels in 1987. Since then, inflation has frequently exceeded 20% per month (The World Bank [1994], Statistical Appendix, Table 1). During this highly inflationary period, state

governments have owned major commercial banks, and, particularly in major economic centers such as Sao Paulo and Rio de Janeiro, the states have engaged in deficit financing while relying on the state-owned banks to purchase state debt. In 1991, state governments had an outstanding debt of about $57 billion US (The World Bank [1994], Table 11), compared for example to a total external debt of roughly $120 billion US. The total indebtedness of the states has since roughly doubled to around $110 billion US (The World Bank [1995d]). Rapid increases in real interest rates have drastically increased the burden of debt service, and some states (e.g., Sao Paulo, whose debt accounts for almost half of all state debt in Brazil) have ceased paying principal and interest to state-owned banks. These banks are important components of the financial sector in Brazil, and they now face a financial crisis since the debts of state governments and public enterprises are their principal assets. Indeed, the fiscal status of the state governments is more precarious than indicated by the official debt figures. For example, since state public expenditures are dominated by outlays for payrolls, public capital expenditures are at correspondingly low levels, which is probably indicative of low or negative net public capital investment in infrastructure. More important, as large as the current wage bill for public employees may be, the states have relied heavily on deferred compensation as well, giving rise to substantial underfunding of public employee pensions.[9]

In order to forestall a general financial crisis, the central bank has assumed responsibility for the management of some major banks. The central bank, and the central government, may thus absorb the debts incurred by the state governments. This is not an attractive policy option, however, fiscal discipline is seen as a key element in the effort to help the central bank limit expansion of the monetary base and thus to control inflation. It would be desirable, on this account, for the central bank or the central government to bail out the states and their banks either by having the central bank take over the non-performing loans of the state banks or by having the central government raise its own deficit by making special transfers to the states with which they could service their debt. In any case, a shift of state liabilities up to central authorities undermines the incentives for fiscal discipline on the part of the state governments, and could encourage further explicit and implicit deficit finance at the state level. If the central authorities force the states and their banks into bankruptcy, however, a general banking crisis may ensue and the provision of key public services in major economic centers may be disrupted. The Brazilian situation seems to exemplify a breakdown of fiscal incentives and constraints in the structure of intergovernmental fiscal relations, arising at least in part from the close connections between lower-level governments and key financial institutions and from the

mismanagement of monetary and fiscal policy at the central government level that has contributed to a highly inflationary environment. It appears that the *de facto* structure of intergovernmental fiscal relations includes the use of state banks, and their relationship to the central bank through the financial regulatory system, to shift implicit liabilities for state deficits to the central bank, a structure that distributes resources and alters incentives in ways very different from the *de jure* structure embodied in established programs of intergovernmental grants and revenue sharing.

China. China presents a fascinating case where overall economic reform, macroeconomic and monetary policy, and problems of interregional imbalance interact with intergovernmental fiscal relations. One fundamental aspect of Chinese economic reform has of course been the reduction of the role of state planning and control in the operation of the economy. The fiscal arrangements that evolved during the Mao period proved to be poorly adapted to a more market-oriented economic system, however. A series of reforms involving changes in tax bases, tax administration, and the division of revenues between lower- and higher-level governments has occurred in the past decade (see, e.g., Bahl and Wallich [1992] and Agarwala [1992]). Uneven economic development among regions – the consequence, in part, of deliberate policies of selective economic liberalization, such as the establishment of "Special Economic Zones" along the southeast coast – have given rise to increases in economic inequality that are problematic in themselves and that are making it increasingly difficult for China to control internal population movements among regions and between rural and urban areas. Indeed, the enforcement of the *hukou* system of household registration has depended on state bureaucratic control of grain rations, employment, housing, and health care, controls which are eroding, and must, it seems, continue to erode, as market reforms continue (Cheng and Selden [1994], Harrold and Lall [1993]).

Regional inequalities, uneven regional development, and internal population movements all create demands for regionally-differentiated public service provision and redistributive transfers. Since the revenue system at each level of government as well as the structure of intergovernmental fiscal relations has been changing rapidly, it is easy to see how regions might press demands for fiscal assistance from the central government which the center would be both poorly positioned to meet and poorly positioned to resist. Indeed, the central government has relied in substantial part on lower-level governments to collect taxes and to transfer resources to it while at the same time it attempts to distribute funds to lower-level governments to promote central government investment and other programs. Under these conditions, it has been difficult for the center to limit transfers to lower-level

governments while simultaneously meeting its policy objectives. The weak revenue base of the center has created pressures on the People's Bank of China (PBC) to offer credit to lower-level governments which can be used to finance expenditures in areas deemed important to the central government. Such "policy lending," however, can prevent the PBC from controlling monetary aggregates in a way that achieves overall macroeconomic price stability (Lall and Hofman [1995], The World Bank [1995b], Ma [1995]). Establishing a structure of tax sharing and intergovernmental fiscal transfers between different levels of government is thus a complex problem (Laffont [1995]) but one that appears to be quite important for macroeconomic stability.

The Former Soviet Union and Eastern Europe

China is certainly not the only country which is undergoing a transition away from a socialist system and simultaneously reforming its fiscal structure, including the assignment of expenditure responsibilities and revenue instruments to different levels of government. The former Warsaw Pact countries of eastern Europe and the states of the former Soviet Union are currently grappling with these problems as well. The breakup of the Soviet Union itself was perhaps the most dramatic and decisive step toward fiscal decentralization, though it is not often characterized as such; one practical consequence of the dissolution of the Soviet Union, however, has been that the public finances of Ukraine, Russia, the Baltic Republics, and other newly-independent states are no longer part of the overall Soviet system.[10]

Russia. Since the breakup of the Soviet Union, the public finances of the Russian Federation have been very fluid and disorganized. Fiscal chaos is perhaps to be expected in the transition away from a centrally-planned economy. In the old regime, government finances were intertwined with the administration of a heavily state-controlled economy with distorted prices, extensive regulation, ill-defined property rights, and incomplete markets. The central elements of economic reform – privatization, decontrol of prices, establishment of legal protection of property rights and contracts, and deregulation – must inevitably have major fiscal consequences. One important aspect of fiscal change in Russia has been a drastic contraction in both public expenditures and taxes; by one recent estimate, public expenditures at all levels of government fell from roughly 65% of GDP in 1992 to about 45% in 1994, while revenues fell from about 45% of GDP to around 35%.[11] Of course, a clearer delineation of public and private responsibilities is a key element of economic reform in Russia, and a substantial reduction in the size of the public sector, together with a refocusing of public-sector activities on core government functions, is an important part

of the reform process.

In the midst of this rapid reduction in overall spending and taxation, the assignment of revenues and expenditure functions by level of government and the structure of intergovernmental fiscal relations has also been changing rapidly. Federal government revenues and expenditures appear to have fallen substantially while regional government revenues and spending have increased, at least as a share of GDP. Major taxes are collected by regional governments and, in principle, specified shares of these taxes are supposed to be passed up to the central government. However, a number of regions have unilaterally withheld all or part of the taxes collected in their territories. The administration and sharing of taxes between the center and many of the regions are managed on an *ad hoc* basis, with negotiated settlements between them to determine their respective tax shares and jurisdictions.[12] Meanwhile, the central government has shed many expenditure functions, leaving the regions with significant new functional responsibilities.

The Russian Federation is an extremely heterogeneous country, with wide spatial disparities in incomes, resource endowments, and social and ethnic characteristics. These disparities suggest a potentially important role for central government transfers to promote more fiscal uniformity in tax burdens and public service provision among the regions. However, the limited ability of the center to administer and collect taxes and the shifting of expenditure responsibilities to lower-level governments may signal the evolution of a looser federation in which the role of the central government in transferring fiscal resources among regions is very constrained and in which the fiscal circumstances of different regions would therefore reflect their underlying heterogeneity. It will not be easy, even if it deemed desirable, for the central government to reverse recent trends toward regional fiscal autonomy and political decentralization. Indeed, several observers (Bahl and Wallich [1995], McLure *et l.* [1995]) have noted that the unwillingness of the constituent republics to share fiscal resources with the center played a major role in the dissolution of the Soviet Union itself. This process (which, incidentally, is reminiscent of the fiscal problems that faced the United States under the Articles of Confederation), could lead to the further breakup of the Russian Federation. It is worth noting that if this should occur, problems of intergovernmental fiscal relations would not then disappear. The regions of the Russian federation would undoubtedly continue to interact economically through trade, capital flows, migration, and spillovers from public and environmental goods. In the absence of a central government like that which currently exists, however, these economic interactions, and the fiscal issues to which they inevitably give rise, would have to be managed "horizontally,"

that is, through coordination (or competition) among jurisdictions.

Fiscal Restructuring: Issues on the Horizon

Before concluding this overview of the developing and transition economies, let us look briefly to the prospects for change in political and fiscal institutions in the future.

The breakup of Czechoslovakia and of Yugoslavia, like the dissolution of the Soviet Union, represent cases where fiscal decentralization has occurred in an extreme form, that is, through the demise of the central government. Numerous other countries, including particularly those where ethnic and religious tensions are high, may well follow the path of the Soviet Union, Czechoslovakia, and Yugoslavia. Governmental structures in numerous African countries, such as the Sudan, Somalia, Rwanda, Burundi, and Nigeria, could easily fragment along ethnic and regional lines, as indeed has already happened recently in Ethiopia. Longstanding ethnic strife in Sri Lanka persists and has led recently proposals for constitutional reform which would divest the central government of considerable fiscal authority, allowing greater autonomy for regional governments that would serve the Tamil, Sinhalese, and other ethnic groups in the country.

If the dissolution of existing jurisdictional structures is a likely prospect in many countries, there are also important cases where increased economic and fiscal integration appears to be on the horizon. On the Korean peninsula, the division of the country at the close of the Korean War has been followed by nearly a half-century of divergent political and economic development. Growing economic disparities between the north and south and uncertainty about the continuity of political institutions in the north raise questions about the durability of the *status quo*. The possibility exists that unification, perhaps sudden, will present Koreans with fiscal challenges like those that arose so unexpectedly in Germany. In North America, Canadian fiscal policy has often co-evolved with trends in its large trading partner to the south. The North American Free Trade Agreement brings the United States, Canada, and Mexico into a more closely integrated economic system which will increase the importance of fiscal interactions among these countries, and the same may be true of the Mercosur countries of South America. Immigration policy and labor mobility are often raise important fiscal issues for jurisdictions that are economically integrated; this is certainly true for the US in relation to Latin America and for Israel in relation to the nascent Palestinian authority and the territories occupied by Israel since the 1967 war. In South Africa, constitutional reforms are redefining the roles of central, provincial, and local governments in ways which should facilitate greater economic, political, and social

integration of that country's several racial and ethnic populations, presenting substantial challenges for fiscal policy, as discussed by Ahmad (this volume).

The course that political developments will take in these and other countries is impossible to foresee. Continued change in political structures can be anticipated, however, suggesting that fiscal issues like those that have been discussed above will be of recurring interest for some time to come.

IV. Conclusion

The discussion in this chapter has provided a sample of some of the important issues of fiscal federalism in a number of important countries and regions of the world, including the EU, Canada, the US, India, China, Russia, Argentina, and Brazil. The economic and demographic importance of these cases, and of others that could well have been discussed, is obvious. Particularly in a world where the basic political organization of the state is undergoing rapid reform and restructuring, the tensions and opportunities created by the fiscal interactions among governments at all levels are of critical concern. The adaptation and effective development of fiscal institutions, including the organization of intergovernmental fiscal relations at all levels, is an ongoing and evolutionary process, one which requires continuing study and analysis.

Political, social, legal, and economic conditions are generally important for the analysis of fiscal issues, but this is perhaps especially the case for the analysis of fiscal decentralization, the fiscal interactions among governments, and other issues of fiscal federalism. These conditions vary widely throughout the world, however, which provides both opportunities and difficulties for research and policy analysis. Much of the established literature of fiscal federalism has been explicitly or implicitly oriented toward the institutions and the policy issues that arise within developed countries, particularly Canada and the United States. These countries and their fiscal problems are of interest in themselves and have provided a context within which many important principles and hypotheses have been developed and tested. Making due allowance for the differing circumstances of other regions and countries, application of the findings of this literature can contribute a great deal to the understanding of related issues throughout the world. At the same time, wide institutional variations mean that rather different policy problems are likely to arise in differing settings, requiring shifts of emphasis in analysis and research, and opening up new topics for investigation. The preceding discussion suggests several topics for research that have not received as much attention in the past as they seem to warrant.

One topic that deserves further attention, especially in the context of developing and transition economies, is the interplay between intergovernmental grants and government borrowing. Debt policy creates a wedge between a government's (primary) expenditures and its (primary) revenues. Intergovernmental grants do the same: recipient governments, like governments that borrow, can spend more than they collect in revenue, while the primary expenditures of donor governments are reduced relative to their revenue. In many countries, lower-level governments receive transfers from those at higher levels, and the higher-level governments engage in borrowing. How is this different from allowing lower-level governments to borrow directly, bypassing the intermediary of the central government? Do fiscal interdependencies between central and lower-level governments, reflected in intergovernmental transfer programs, imply that lower-level government borrowing creates implicit liabilities on the part of central governments? If so, must central governments impose controls on lower-level borrowing, or is it possible to structure intergovernmental fiscal relations in such a way as to allow local borrowing without inducing adverse local incentives? In the absence of independent local access to capital markets, should one view the central government as a financial intermediary or delegated borrower acting on behalf of local governments, obtaining funds through the issuance of debt that can then be transferred to lower-level governments through intergovernmental grants? What are the advantages or disadvantages of this sort of intermediation?

A related question for research concerns the issue of "hard" and "soft" budget constraints for lower-level governments. In China, Russia, Brazil, and elsewhere, central government monetary and fiscal authorities seem to absorb fiscal imbalances incurred by lower-level governments. Why do these countries settle their intergovernmental fiscal transactions on an *ad hoc* basis, responding to the fiscal distress of lower-level units with a variety of special loans, grants, negotiated tax-sharing agreements, directed-credit programs, and other "emergency" bailouts, rather than establishing firm and transparent rules which would govern the form and extent of fiscal flows between central and subnational fiscal and financial institutions? It is likely that the unsystematic and "flexible" arrangements found in a number of countries do not provide effective incentives for lower-level governments to manage their expenditure, tax, and other fiscal decisions efficiently or responsibly. Many observers have argued that it is desirable to establish "hard" budget constraints for lower-level fiscal authorities, which may well be sound normative advice. What exactly are the economic distortions associated with "soft" budget constraints, however? What sorts of institutional reforms might help to establish hard budget constraints? A more detailed institutional comparison of different countries might shed light on these questions. In

addition, formal modelling is needed clarify the nature of the incentives associated with different institutional structures and thus to shed light on types of institutional change that might facilitate more effective organization of decentralized fiscal systems.

The formation or dissolution of countries is a topic about which modern economics has not had much to say (but see Austin (1996), Berkowitz [forthcoming], Burbidge *et l.* [1994], Casella [1994], Shapiro and Petchey [1994]). Perhaps because of the rigid polarization of the Cold War and the high potential costs of superpower confrontation, national boundaries in much of the world, especially the developed world, have been relatively stable during the past half-century. In historical terms, however, such stability may be anomalous. Changes in jurisdictional structure may be part of the normal course of economic events to which we ought to become accustomed. In any case, the existence of national units within established boundaries is now called into question with increased and sometimes unsettling frequency, and one must similarly question whether the "country" remains the appropriate unit of analysis for at least some important issues in economics. What are the fundamental economic forces that shape "natural" economic areas? Are there significant economic benefits or costs that result from the inclusion of several regions within one jurisdictional structure? From a normative viewpoint, what are the economic considerations that determine the optimal size of a "country," and what are the crucial economic functions of "national" governments? From a positive viewpoint, to what extent do economic forces drive the political restructuring that we observe, and where may these forces take us in the future?

Gains from economic association through trade in goods and services and from free movement of factors of production are certainly crucial elements of this story. Demographic change, changes in the technology of communication and transportation, and the development of market institutions may alter the optimal or equilibrium boundaries of political units over time. Such change invariably raises questions about the organization of the public sector and the assignment of expenditures and revenues to different levels of government. The integration of labor and capital markets, for example, can be promoted by political union among governments or through policies such as deregulation of capital markets or relaxation of immigration controls. Such integration must certainly provide greater opportunities for the efficient deployment of factors of production over space and among industries, but, by affecting factor markets, it also affects the distribution of income. Perhaps the distributional effects of factor market integration would create a greater role for government redistributive policies, for example by cushioning some factors from

negative quasi-rents. Yet, as mentioned already in Section II, the opening of factor markets may limit the ability of governments to undertake redistributive policies. Conversely, the erection of barriers to factor movements through political separation may entail efficiency losses while facilitating government policy interventions. The patterns of gains and losses resulting from the reorganization of jurisdictional structures can thus be quite complex. To understand them fully requires an appreciation both of the economic consequences of changes in market organization and of the economic consequences of changes in policy outcomes resulting from the reorganization of the public sector. This raises a series of questions that cuts across many areas of economics, including labor economics, finance, urban and regional economics, and international economics in addition to public economics and political economy.

FOOTNOTES

[†] I am grateful to numerous colleagues for comments on this paper and for general discussions of the topics discussed here. These include R. Bird and many World Bank colleagues, especially J. Ahmad, H. Davoodi, S. Devarajan, G. Eskeland, D. Sewell, P. Vieira da Cunha, and H.-F. Zou. Talking with them about fiscal federalism issues throughout the world has been enormously instructive and has greatly reduced the formidable barriers involved in trying to understand the diverse and often complicated fiscal problems encountered in countries undergoing rapid economic and political change. None of these individuals, however, can be held accountable for any errors, omissions, or lapses of judgment. This paper was written while the author was visiting the Public Economics Division of the Policy Research Department of the World Bank, whose hospitality is greatly appreciated.

[1] See Bird (1994) for insightful discussion of the benefits and limitations of comparative analyses of federal finance; also see McLure *et l.* (1995) provide a concise comparative survey of intergovernmental fiscal relations and Shah (1994) for a general discussion of fiscal federalism issues in developing countries. The following discussion is intended to illustrate some of the diversity of issues relating to fiscal federalism and fiscal decentralization that arise in many parts of the world today and to provide references to some (though only a portion) of the relevant literature for interested readers.

[2] For discussion of these issues, see, e.g., Wildasin (1991, 1992, 1994, forthcoming, a, b), Wellisch and Wildasin (1996), and, for surveys and many additional references, Cremer *et l.* [1995]) and Wildasin (forthcoming, c).

[3] A number of the fiscal issues that arise in another mature federation, Australia, are discussed by Petchey and Shapiro (this volume).

[4] See, e.g., Courchene (1984), Boadway and Hobson (1993), Shah (1995), and references therein.

[5] See the contributions to Boadway *et l.* (1991) and Banting *et l.* (1994) for further discussion.

[6] Revelation of preferences through locational choices offers the prospect that more efficient levels of public good provision can be achieved than otherwise would be the case, a possibility identified by Tiebout (1956) in an influential article.

[7] It has proven very difficult to determine exactly what variables under the control of policymakers are able to influence educational outcomes; in particular, per-student educational expenditures do not seem to have the decisive impact on educational output that one might anticipate (see, e.g., Hanushek [1986]). This greatly complicates the school finance debate since the true nature of any efficiency/equity tradeoffs remains obscure.

[8] See also Campbell *et l.* (1991), Winkler (1994), and The World Bank (1996a) for further discussion of the experience of fiscal federalism in Latin America.

[9] Under proper deficit accounting, changes in the real value of public infrastructure assets and in implicit or contingent liabilities such as underfunded pensions should be included in a comprehensive measure of the change in public sector net worth (see, e.g., Eisner [1986], Kotlikoff [1992], Boadway and Wildasin [1989], and references therein). This type of accounting is seldom undertaken, however, which can give rise to perverse incentives. The underfunding of municipal employee pensions in the US is a problem of long standing; see, e.g., Inman (1980, 1981) and Epple and Schipper (1981).

[10] See Bird *et l.* (1995b) for discussions of fiscal decentralization and intergovernmental fiscal relations in Hungary, Poland, Bulgaria, Romania, Albania, and Ukraine, in addition to the Russian federation. Problems of local government finance in Estonia are discussed in The World Bank (1995c). See also Bahl (1995) for comparative discussion of China, Russia, and the US.

[11] The World Bank (1996b), Tables A.1–A.3. This shrinkage in the size of the public sector in relation to GDP is all the more remarkable in view of the fact that GDP itself has fallen by about 40% during the same period (The World Bank (1996c), Table A3. It must be noted that fiscal and other statistical reporting in Russia is incomplete and accounting methods are unstable. Large errors must therefore be expected in fiscal accounts, and figures are unlikely to be properly comparable over time.

[12] See, e.g., Bahl and Wallich (1995), McLure *et l.* (1995), and The World Bank (1996b), p. 17, and The World Bank (1996c), pp. 44–46. Some (though not all) of these negotiated settlements involve resource-rich regions and the sharing of the rents accruing to resource-intensive industries.

REFERENCES

Agarwala, R. (1992), "China: Reforming Intergovernmental Fiscal Relations," World Bank Discussion Paper No. 178.

Ahmad, J. (this volume), "The Structure of Urban Governance in South African Cities."

Artis, M. (1996), "Alternative Transitions to EMU," *Economic Journal 106*, 1005–1015.

Austin, D.A. (1996), "The Price of Nationalism: Evidence from the Soviet Union," *Public Choice 87*, 1–18.

Bahl, R. (1995), "Comparative Federalism: Trends and Issues in the United States, China, and Russia," in J. Roy (ed.), *Macroeconomic Management and Fiscal Decentralization* (Washington, DC: The World Bank) 73–102.

Bahl, R. and C. Wallich (1992), "Intergovernmental Fiscal Relations in China," Policy Research Working Paper WPS 863, The World Bank.

Bahl, R. and C. Wallich (1995), "Intergovernmental Fiscal Relations in the Russian Federation," in R.M. Bird, R.D. Ebel, and C.I. Wallich (eds.), *Decentralization of the Socialist State: Intergovernmental Finance in Transition Economies* (Washington, DC: The World Bank), 321–378.

Banting, K.G., D.M. Brown, and T.J. Courchene (eds.). (1994). *The Future of Fiscal Federalism*. Kingston, Ontario: School of Policy Studies, Queen's University.

Berkowitz, D. (forthcoming), "Regional Income and Secession," *Regional Science and Urban Economics*.

Besley, T., I. Preston, and M. Ridge. (forthcoming), "Fiscal Anarchy in the UK: Modelling Poll Tax Noncompliance," *Journal of Public Economics*; presented at ISPE conference on "Fiscal Aspects of Evolving Federations," Vanderbilt University.

Bird, R.M. (1994), "A Comparative Perspective on Federal Finance," in K.G. Banting, D.M. Brown, and T.J. Courchene (ed.), *The Future of Fiscal Federalism* (Kingston, Ontario: School of Policy Studies, Queen's University), 293–322.

Bird, R.M., R.D. Ebel, and C.I. Wallich (1995a), "Fiscal Decentralization: From Command to Market," in R.M. Bird, R.D. Ebel, and C.I. Wallich (eds.), *Decentralization of the Socialist State: Intergovernmental Finance in Transition Economies* (Washington, DC: The World Bank), 1–68.

Bird, R.M., R.D. Ebel, and C.I. Wallich (1995b), *Decentralization of the Socialist State: Intergovernmental Finance in Transition Economies* (Washington, DC: The World Bank).

Boadway, R.W., T.J. Courchene, and D.D. Purvis (eds.) (1991). *Economic Dimensions of Constitutional Change.* Kingston, Ontario: John Deutsch Institute for the Study of Economic Policy.

Boadway, R.W. and P.A.R. Hobson (1993), *Intergovernmental Fiscal Relations in Canada.* Toronto: Canadian Tax Foundation.

Boadway, R.W. and D.E. Wildasin (1989), "Long Term Debt Strategy: A Survey," in H.A.A. Verbon and F.A.A.M. van Winden (eds.), *The Political Economy of Government Debt* (Amsterdam: North-Holland), 37–68.

Burbidge, J.B., J.A. DePater, G.M. Myers, and A. Sengupta (1994), "Federation as Coalition Formation," presented at ISPE conference on "Fiscal Aspects of Evolving Federations," Vanderbilt University.

Burgess, R. S. Howes, and N. Stern (1995), "Value-Added Tax Options for India," *International Tax and Public Finance 2*, 109–141.

Campbell, T., with G. Peterson and J. Brakarz (1991), *Decentralization to Local Government in Latin America and the Caribbean: National Strategies and Local Response in Planning, Spending, and Management*, Latin America and Caribbean Technical Department Regional Studies Program, Report No. 5 (Washington, DC: The World Bank).

Casella, A. (1994), "The Role of Market Size in Club Formation," presented at ISPE conference on "Fiscal Aspects of Evolving Federations," Vanderbilt University.

Cheng, T. and M. Selden (1994), "The Origins and Social Consequences of China's *Hukou* System," *China Quarterly 139*, 644–668.

Courchene, T.J. (1984). *Equalization Payments: Past, Present, and Future.* Toronto: Ontario Economic Council.

Cremer, H., V. Fourgeaud, M.L. Monteiro, M. Marchand, and P. Pestieau (1995), "Mobility and Redistribution: A Survey," unpublished.

Eisner , R. *How Real Is the Federal Deficit?* (New York: The Free Press).

Epple, D. and K. Schipper (1981), "Municipal Pension Funding: A Theory and Some Evidence," *Public Choice 37*, 141–178.

Fehr, H., C. Rosenberg, and W. Wiegard (1995), *Welfare Effects of Value-Added Tax Harmonization in Europe* (Berlin: Springer-Verlag).

Gérard-Varet, L.A. (1994). "Decentralization of Public Policy and Incentives." Presented at ISPE conference on "Fiscal Aspects of Evolving Federations," Vanderbilt University.

Goodspeed, T.J. (1994), "Efficiency and Equity Consequences of Decentralized Government: An Application to Spain," *International Tax and Public Finance 1*, 35–56.

Hanushek, E. (1986), "The Economics of Schooling: Production and Efficiency in the Public Schools," *Journal of Economic Literature 24*, 1141–1177.

Harrold, P. and R. Lall (1993), "Reform and Development in 1992–93," World Bank Discussion Papers, China and Mongolia Department, No. 215.

Inman, R.P. (1980), "Wages, Pensions, and Employment in the Local Public Sector," in P. Mieszkowski and G.E. Peterson (eds.), *Public Sector Labor Markets* (Washington, DC: The Urban Institute), 11–57.

Inman, R.P. (1981), "Public Employee Pensions and the Local Labor Budget," *Journal of Public Economics 19*, 49–71.

Inman, R.P. and D.L. Rubinfeld (1979), "The Judicial Pursuit of Local Fiscal Equity," *Harvard Law Review 92*, 1662–1750.

Inter-American Development Bank (1994), *Economic and Social Progress in Latin America: 1994 Report* (Washington, DC: Inter-American Development Bank).

Kotlikoff, L. (1992), *Generational Accounting* (New York: The Free Press).

Laffont, J.-J. (1995), "Incentives in China's Federal Tax System," presented at ISPE conference on "The Distributional Aspects of Fiscal Policy: The Implications of Economic Integration," University of Essex.

Lall, R. and B. Hofman (1995), "Decentralization and the Government Deficit in China," in J. Roy (ed.), *Macroeconomic Management and Fiscal Decentralization* (Washington, DC: The World Bank), 195–220.

Ma, J. (1995), "Macroeconomic Management and Intergovernmental Relations in China," Policy Research Working Paper No. 1408, The World Bank.

McLure, C.M., Jr., C.I. Wallich, and J. Litvack (1995), "Special Issues in Russian Federal Finance: Ethnic Separatism and Natural Resources," in R.M. Bird, R.D. Ebel, and C.I. Wallich (eds.), *Decentralization of the Socialist State: Intergovernmental Finance in Transition Economies* (Washington, DC: The World Bank, 379–404.

Musgrave, R.A. (1959), *Theory of Public Finance: A Study in Public Economy* (New York: McGraw-Hill).

Murty, M.N. and P.B. Nayak (1994), "A Normative Approach for Resource Transfers in a Federal State," in A. Bagchi and N. Stern (eds.), *Tax Policy and Planning in Developing Countries* (Delhi: Oxford University Press), 231– 261.

Nechyba, T. (this volume), "Computable General Equilibrium in Local Public Finance and Fiscal Federalism: Applications to Local Taxation, Intergovernmental Aid, and Education Vouchers."

Oates, W.E. (1968). "The Theory of Public Finance in a Federal System." *Canadian Journal of Economics 1*, 37–54.

Owens, J. and G. Panella (eds.) (1991). *Local Government Finance: An International Perspective*. Amsterdam: North-Holland.

Petchey, J. and P. Shapiro (this volume), " 'One People One Destiny': Centralisation and Conflicts of Interest in Australian Federalism."

Prud'homme, R. (1989), "State and Local Finance and Public Policy in Brazil," unpublished paper (Institut d'Urbanisme de Paris, Université Paris XII, Observatoire de l'Economie et des Institutions Locales).

Prud'homme, R. (1995), "The Dangers of Decentralization," *The World Bank Research Observer 10*, 201–220.

Rao, M.G. and V. Agarwal (1994), "Inter-governmental Fiscal Transfers in India: Some Issues of Design and Measurement," in A. Bagchi and N. Stern (eds.), *Tax Policy and Planning in Developing Countries* (Delhi: Oxford University Press), 195–221.

Shah, A. (1991). "The New Fiscal Federalism in Brazil," World Bank Discussion Paper No. 124.

Shah, A. (1994). "The Reform of Intergovernmental Fiscal Relations in Developing and Emerging Market Economies." World Bank Policy and Research Series No. 23.

Shah, A. (1995), "Intergovernmental Fiscal Relations in Canada: An Overview," in J. Roy (ed.), *Macroeconomic Management and Fiscal Decentralization* (Washington, DC: The World Bank), 233–255.

Shapiro, P. and J. Petchey (1994), "Secession and the Median Voter," presented at ISPE conference on "Fiscal Aspects of Evolving Federations," Vanderbilt University.

Sinn, G. and H.-W. Sinn. (1992). *Jumpstart.* Cambridge: MIT Press.

Tanzi, V. (1995) *Taxation in an Integrating World* (Washington, DC: The Brookings Institution).

Tanzi, V. (1996), "Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomics Aspects," in M. Bruno and B. Pleskovic (eds.), *Annual World Bank Conference on Development Economics* (Washington DC: The World Bank), 295–316.

Tiebout, C.M. (1956), "A Pure Theory of Local Expenditures" *Journal of Political Economy 64*, 416–424.

Wellisch, D. and D.E. Wildasin (1996), "Decentralized Income Redistribution and Immigration," *European Economic Review 40*, 101–133.

Wildasin, D.E. (1991), "Income Redistribution in a Common Labor Market," *American Economic Review 81*, 757-774.

Wildasin, D.E. (1992), "Relaxation of Barriers to Factor Mobility and Income Redistribution," in P. Pestieau (ed.), *Public Finance in a World of Transition*, a Supplement to Vol. 47 of *Public Finance/Finances Publiques*, 216–230.

Wildasin, D.E. (1994), "Income Redistribution and Migration," *Canadian Journal of Economics 27*, 637–656.

Wildasin, D.E. (forthcoming, a), "Factor Mobility, Risk, Inequality, and Redistribution," in D. Pines, E. Sadka, and I. Zilcha (eds.), *Topics in Public Economics* (Cambridge: Cambridge University Press). See also "Factor Mobility, Risk, and Redistribution in the Welfare State,' *Scandinavian Journal of Economics 97*, 1995, 527–546.

Wildasin, D.E. (forthcoming, b). "Income Distribution and Redistribution Within Federations." *Annales d'Economie et de Statistique.*

Wildasin, D.E. (forthcoming, c), "Factor Mobility and Redistributive Policy: Local and International Perspectives," in P.B. Sorensen (ed.), *Public Finance in a Changing World* (MacMillan).

Winkler, D.R. (1994), *The Design and Administration of Intergovernmental Transfers: Fiscal Decentralization in Latin America* (Washington, DC: The World Bank).

The World Bank (1993), *Argentina: From Insolvency to Growth* (Washington, DC: The World Bank).

The World Bank (1994), *Brazil: An Agenda for Stabilization* (Washington, DC: The World Bank).

The World Bank (1995a), *Economic Developments in India: Achievements and Challenges* (Washington, DC: The World Bank).

The World Bank (1995b), *China: Macroeconomic Stability in a Decentralized Economy* (Washington, DC: The World Bank).

The World Bank (1995c), *Estonia: Financing Local Governments* (Washington, DC: The World Bank).

The World Bank (1995d), *Brazil State Debt: Crisis and Reform* (Washington, DC: The World Bank).

The World Bank (1996a), *Colombia: Reforming the Decentralization Law: Incentives for an Effective Delivery of Services* (Washington, DC: The World Bank).

The World Bank (1996b), *Fiscal Management in Russia* (Washington, DC: The World Bank).

The World Bank (1996c), *Russian Federation: Toward Medium-Term Viability* (Washington, DC: The World Bank).