

Fiscal Federalism and European Economic Integration

Edited by Mark Baimbridge
and Philip Whyman

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Fiscal Federalism and European Economic Integration

The pace of economic integration among European Union (EU) member states has accelerated considerably over the past decade, highlighted by the process of Economic and Monetary Union (EMU). Many aspects of the EU's apparatus, however, have failed to evolve in order to meet these new challenges.

Fiscal Federalism and European Economic Integration explores the issue of fiscal federalism within the context of EU integration from theoretical, historical, policy and global perspectives. It contrasts the pace of integration amongst EU member states with the failure of financial and administrative apparatus to encompass fiscal federalism, i.e. the development of a centralized budgetary system.

This impressive collection, with contributions from a range of internationally respected authors, will interest students and researchers involved with European economics and economic integration. Its accessible style will also make it extremely useful to policy-makers and professionals for whom European economic integration is a part of daily life.

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Preface

The number of books available to analyse contemporary European economic integration have multiplied over recent years to the point where the ‘wood’ and ‘trees’ frequently become inseparable. However, despite this extensive choice of texts, a number of weaknesses remain. First, many of the leading texts have sought to maximize their marketability by attempting to cover the entire spectrum of EU-related topics, but ultimately do so only at a superficial level. Whilst certain areas may lend themselves to a brief examination presented in a single chapter, many others are too complex to summarize in such a manner and require a more sophisticated approach if all the principal issues are to be analysed. Clearly, we believe that fiscal federalism in the context of Economic and Monetary Union (EMU) is one such topic. Even the most cursory discussion of fiscal federalism should seek to encompass the considerable theoretical underpinnings of this area of economic and political debate, review the historical development of the EU budget, consider how fiscal federalism does and should feature within the present EMU framework and what Europe can learn from established federal systems. Such a herculean task cannot be satisfactorily achieved in a single chapter. Indeed, it has been a challenge to incorporate the most important aspects in a single book of ten chapters!

The second problem for those seeking a greater understanding of European economic integration is that many books are ‘positioned’ and adopt a far from neutral stance when explaining the relevant arguments. It is, of course, natural that academics who have self-selected European integration as their speciality, are likely to possess strong opinions towards the achievement of this goal. However, too frequently value judgements are permitted to influence the treatment given to the pertinent issues and arguments. We hope that this book succeeds in portraying the concept of fiscal federalism in a balanced light.

A third problem is that the fast-moving events of European integration can result in books becoming outdated soon after, or even before, their publication! Readers should always be aware of the time lag it takes for the latest ideas to be included in texts following their initial publication as working papers, conference contributions and journal articles. This process can often take several years, which when added to the time taken to write, edit, print

and distribute a book, can make the end product appear dated by the time it reaches the shelves, real or virtual.

The present edited collection seeks to minimize these problems that all editors and authors face by bringing together in a single volume a carefully chosen series of contributions written by leading specialists in the field of fiscal federalism. The editorial content of the book endeavours to be neutral in the sense that none of the arguments contained in the volume are presented as being superior to any other. Moreover, considerable effort has been taken to ensure that although the subject matter is academically rigorous, the 'technical' content is reduced to a minimum, without compromising the quality of its content, to ensure the highest possible degree of 'readability', all too frequently absent from contemporary economics texts. Thus we hope to have widened the potential audience for this edited collection beyond academic economists, to encompass all those in disciplines interested in European integration and students at virtually all levels. Moreover, by limiting its breadth of analysis to the theoretical, policy-orientated, historical and external perspectives of fiscal federalism, the volume is able to cover each topic in sufficient detail to be useful for undergraduate students undertaking courses in European economics, the political economy of Europe, international finance, public finance or European studies, together with providing a reference point for postgraduates and academics.

The book is divided into four sections. The first seeks to establish the theoretical background to the discussion of fiscal federalism. Contributions in this section include the 'founding father' of fiscal federalism, Wallace Oates, and a leading specialist, Ralph Rotte. The second section commences with a chapter by Jeff Harrop which reviews the progress of the EU budget, followed by Brian Ardy who considers the potential impact of EMU upon existing budgetary structures. The third section examined moves the story forward with Robert Ackrill considering whether the absence of the euro-zone members to undertake economic stabilization via fiscal federalism is an important issue. This is followed by the chapter of Edward Gramlich and Paul Wood which focuses upon how the shape of the nation, or federation, coexists with confederation. The final section seeks to widen the frequently introspective nature of EMU related discussion through incorporating experiences and lessons from established fiscal federal systems in Australia (Jeff Petchey and Graeme Wells), Switzerland (Christoph Schaltegger and René Frey) and Canada (Tracy Snoddon). A more detailed overview of the focus of this book and outline of each contribution can be found in our introductory chapter *Fiscal federalism and EMU: an appraisal*.

Finally, we hope that this collection of contributions from the leading-edge of the subject will prove accessible to, and thereby popular amongst, those undergraduate and postgraduate students to which it is primarily directed. It only remains for us to once again thank the contributors for their willingness to participate in this project and assure them that any remaining errors are our responsibility.

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There are many people to thank for their input into making this book possible. Most obviously, we offer our deep gratitude to all the contributors for their enthusiasm for this project and all their work in completing their chapters to a universally high standard. Second, we must thank our Commissioning Editor at Routledge, Rob Langham, for his support and patience over the duration of this edited collection. Third, we would like to thank our colleagues at the universities of Bradford and Central Lancashire for their comradeship and general support for our research on European economic integration and the work of the European Economies Research Unit (EERU). Finally, we owe a deep sense of gratitude to our families and partners for their forbearance during the preparation of this book. It is to them that this book is dedicated: for PW: Barbara, Boyd and Claire; for MB: Mary, Ken and Beibei.

Haworth and Heaton Norris
May 2003

Introduction

Fiscal federalism and EMU: an appraisal

Philip Whyman and Mark Baimbridge

Introduction

The pace of integration amongst European Union (EU) member states has accelerated considerably during the past decade, stimulated by the agreement to form the Single Internal Market and further enhanced by the process of forming an Economic and Monetary Union (EMU). Indeed, the latter will fundamentally transform macroeconomic management as nation states relinquish exchange rate and monetary policy to a European Central Bank (ECB), which will generate common interest and exchange rates shared by all participants (EU Commission, 1992).

However, whilst the nature of the community of European nations has evolved significantly over this period, many aspects of the EU financial and administrative apparatus have failed to meet these new challenges. In particular, whilst detailed consideration has been given to monetary matters, the inadequacies of the EU's budgetary arrangements have received far less attention. Discussion of fiscal policy alternatives has focused upon whether individual member states will meet the Maastricht convergence criteria (MCC) for membership, and whether the Stability and Growth Pact (SGP) will prove too restrictive in practice. However, the advent of EMU, and the new challenges this places upon economic management, will necessitate a fundamental review of fiscal policy. In particular, consideration will have to be given as to whether the medium- and long-term success of EMU depends upon a system of fiscal federalism to ensure a stable and cohesive union.

Fiscal federalism refers to the development of a centralized budgetary system comprising all members of a federation or federal state. In mature federal states, such as the United States, fiscal federalism operates through the various federal taxes and transfers, which occur in addition to state budgetary systems. In the context of European EMU, it specifically refers to the enlargement of the EU Budget, or the implementation of a complementary fiscal mechanism, which enables resources to be automatically transferred from one member state to another in a similar manner to the way in which regional redistribution is achieved in nation states.

Arguments for fiscal federalism

There are three principal advantages to fiscal federalism forming a central feature of any emergent monetary union. First, the existence of external shocks, which impact upon individual member states in various ways, undermines the effectiveness of a common monetary and exchange rate policy. The persistence of these asymmetric shocks into EMU, therefore, provides a potential focus for destabilization in the medium- and long-term. Assuming that these adverse shocks occur randomly, a centrally organized, interregional public insurance scheme can redistribute income from 'favourably shocked' to 'adversely shocked' regions to prevent an 'unlucky' area bearing a disproportionate financial burden. Consequently, countries that are negatively affected by external shocks enjoy net automatic transfers from less badly affected participating member states, thereby reducing the social costs of a monetary union. For example, if France was hit by a negative external shock, its tax revenues paid to the central fund or budget would decline automatically whilst its drawings, in the form of unemployment benefit or other forms of public expenditure, would rise. Similarly, if Germany was experiencing a positive period of economic growth, its tax revenue would rise, thereby increasing its contributions to the central fund, whilst its drawings would fall. Consequently, fiscal federalism would ensure a net transfer of resources from a temporarily relatively favoured member state to a temporarily weaker region or nation.

The central fiscal system thus operates as a shock absorber for the monetary union. It provides a partial substitute to the absence of exchange rate flexibility within a single currency and the inability for a common monetary policy to stabilize all participating economies simultaneously. The potential cost for a nation experiencing a loss of competitiveness, in the absence of devaluation and with insufficient wage-price flexibility and labour mobility to provide corrective market forces, would be measured in regions of persistent high unemployment and a rise in regional inequality (Bruno and Sachs, 1985; Layard *et al.*, 1991; OECD, 1986; von Hagen, 1992: 278). Moral hazard is minimized by ensuring that no incentives exist that encourage potential beneficiaries to manipulate the scheme to their advantage and in so doing discourage participation from other regions (Goodhart and Smith, 1993: 424–5; Wyplotz, 1993: 181).

A second argument in favour of fiscal federalism is that a centralized budget is better able to internalize externalities associated with both taxation and expenditure. Governments may not undertake an optimal level of counter-cyclical stabilization due to the existence of regional-spillovers, whereby non-residents derive some benefit from the policy whilst residents must bear the full cost through higher debt or taxation. Factor mobility could also constrain governments from incurring high levels of debt since the risk of higher future taxes may encourage factor relocation to other regions, thus reducing the tax base and providing short-term stability at the price of long-term instability.

To the extent that this prisoner's dilemma constrains government fiscal flexibility, the solution requires a co-ordinated stabilization strategy solution typical of non-co-operative game settings, necessitating either horizontal cooperation amongst member states or centralization under a federal authority (Musgrave and Musgrave, 1973; Goodhart and Hansen, 1990; Rompuy *et al.*, 1993: 112–3; Masson, 1996). The operation of a common fiscal policy means that participating member states can stabilize the tax base since, for a given tax rate, revenues available for redistribution are more stable. Thus, a centralized fiscal system can better stabilize post-tax incomes and insure individuals against country-specific shocks (Sala-i-Martin and Sachs, 1992; Alesina and Perotti, 1998).

Finally, the need to strengthen the cohesion of EMU through redistribution of resources to economically weaker regions, which reinforces political and social solidarity throughout all participating member states, may entail a significantly enhanced role for federal financial authority. In view of the requirement for continued political support for all member states remaining within the union and thus accepting the economic costs as well as benefits that this entails, it is unlikely that this support will remain unchallenged in individual countries should they suffer higher unemployment and declining living standards relative to the remainder of EMU participants. Consequently, a form of solidaristic transfer scheme is likely to prove necessary to minimize the threat of inequality endangering the future cohesion of the monetary union. Indeed, it is noticeable that all mature monetary unions which exist within federal states, for example United States, Australia, Canada, Switzerland and Germany, all exhibit a significant degree of redistribution between wealthy and poorer regions (Bayoumi and Masson, 1995).

Fiscal policy assignment

The probability that EMU will be adversely affected by the persistence of asymmetric external shocks does not, of course, automatically justify fiscal expansion at federal level. Indeed, the EU Commission's definition of subsidiarity is consistent with both the 'decentralization' or 'layer-cake' theorem governing policy assignment, where functions are performed by the lowest efficient layer of government (Wheare, 1963; Oates, 1972: 35). This would appear to indicate an initial preference for national fiscal autonomy within EMU (Weber, 1991; Bayoumi and Masson, 1995: 268; Burkitt *et al.*, 1996). However, the design and impact of EMU upon member states significantly weakens this conclusion for a number of reasons.

First, the Maastricht Treaty requirement for member states to avoid budget deficits above 3 per cent of GDP, and government debt exceeding 60 per cent of GDP, restricts the pursuit of counter-cyclical fiscal policy at the national level (EC Commission, 1992; Holland, 1995; Burkitt *et al.*, 1996: 3–6; UNCTAD, 1996). Indeed, the Stability and Growth Pact further limits the scope for national fiscal policy, as uncorrected 'excessive' deficits higher than 3

per cent of GDP would result in fines levied upon the offending nation of up to 0.5 per cent of GDP (EU Commission, 1997). Consequently, unless member states are able to improve their budget balances considerably, so that they maintain substantial budget surplus in boom years, they will be prevented from utilizing automatic fiscal stabilizers as they do at present without the counter-cyclical cost of a fine imposed by the EU authorities.

National fiscal policy is further undermined by the operation of the Single Market and the reduction in seigniorage¹ tax revenue for certain member states as a direct result of EMU membership. The requirement for the abolition of exchange controls, contained within the single market legislation, was intended to enhance financial market integration within the EU. However, such integration reduces the ability of member states to borrow cheaply to enable debt-financed fiscal expansion (Courchene, 1993: 152). Moreover, this potential reduction in fiscal flexibility would be compounded for those member states, which currently depend upon seigniorage for a significant proportion of their total tax revenue. A stable EMU would require a convergence in national inflation rates and, assuming that the European Central Bank achieved the low inflation target established in its founding chapter, seigniorage may be limited to an estimated 0.4 per cent of GDP for all participants. This would particularly affect Portugal as seigniorage revenues totalled 3.6 per cent of its GDP in 1990, whilst Greece (2.3 per cent), Spain (1.9 per cent) and Italy (1.3 per cent) would also lose a significant proportion of budget revenue (Dornbusch, 1988: 26; Eichengreen, 1993: 1335–6; Spahn, 1993: 577). Thus, the fiscal drain experienced by certain member states would cause fiscal retrenchment independently of the additional requirements imposed by the Maastricht convergence criteria (Masson, 1996).

Criticism of active fiscal policy

The argument advanced to this point appears to demonstrate that EMU requires an expansion in fiscal policy to prevent destabilization of the union in the medium- or long-term and that, due to the constraints placed upon national autonomy by the monetary union's own rules intended to prevent profligacy, this expansion should occur at central, rather than local, level. However, this conclusion is not without its critics. For example, new-classical economists argue that market forces will ensure a quick stabilization of any imbalance caused by an external shock. Governments should therefore invest in supply side measures to ensure greater wage-price flexibility and/or labour mobility rather than utilize an inferior fiscal policy substitute (Goodhart and Smith, 1993: 441; van der Ploeg, 1993: 144). Active fiscal policy is further criticized on the grounds that a non-accommodative monetary and fiscal stance may reduce the time lag involved in adjusting to a new equilibrium position as individual economic actors internalize more of the costs of their actions, whilst the operation of EMU may reduce persistent rigidities (Majocchi and Rey, 1993). Similarly, international policy co-ordination may undermine

central bank credibility and cause an unanticipated increase in inflation by weakening the disciplining effects of excessive monetary growth upon the exchange rate (van der Ploeg, 1993: 156). Finally, von Hagen (1992: 265) rejects what he terms the 'parallel unification proposition', namely that currency unification requires fiscal policy unification, although without examining the merits of a policy framework being developed between the extremes of either full fiscal autonomy or complete centralization at the federal level.

Despite these criticisms, however, unless the discipline effect of EMU is powerful and immediate, the short- and medium-term persistence of price and factor rigidities would appear to necessitate the use of fiscal policy as a stabilizing instrument. Although fiscal policy is, at best, an imperfect substitute for exchange rate flexibility and/or perfectly functioning market forces, there appears little alternative to utilizing fiscal federalism to strengthen monetary union or risk unemployment and income inequality persisting in certain regions (Kenen, 1969; Lamfalussy, 1989; Masson, 1996: 1002). Indeed, failure to develop such a stabilizing mechanism could even result in the collapse of EMU as has been the case in almost all other similar international monetary arrangements which have not been based upon a firm national identity. Thus, fiscal federalism may reduce the incentive for any country to leave the EMU.

Organization of this book

It is this case for an enlargement of fiscal federalism, as an essential prerequisite for a successful single currency, that this book intends to examine. Whereas fiscal federalism has often been analysed in terms of its efficiency and operation within existing, mature monetary unions, relatively little has been written on its arguably vital role in preventing external shocks exacerbating differences in industrial structure of the participants, and thereby endangering the entire EMU project. Indeed, apart from a brief chapter in a few major textbooks, this issue has been relatively overlooked. However, the question of whether EMU can only be sustained by a massive transfer of resources from national to federal level, whether fiscal policy is the best policy instrument to be used to stabilize the single currency, and if so, in what form should fiscal federalism be developed to maximize its positive impact, are all questions which should be answered before countries sign up for monetary union membership. The political sensitivity to some of these issues, implying as they do a shift in resources from national to central control, should not obscure the importance of the answers to these questions, as incorrect action could undermine the future of European integration and the relative prosperity of the region.

The book is in four parts, with the first chapter represented by a seminal contribution from Wallace Oates, which outlines the theory of fiscal federalism, a description of fiscal policy instruments, an introduction to the

debate surrounding jurisdictional boundaries and the objectives pursued by a federal system. This comprehensive overview of the subject is complemented by the chapter by Ralph Rotte, which examines the contribution of the SGP to creating fiscal discipline and credibility of financial institutions within EMU.

The second part moves beyond the examination of economic theory to evaluate the development of EU budgetary measures. Jeffrey Harrop opens this topic by examining the development of the EU Budget, and in particular the significant expansion of structural funding, the contributions of existing expenditure to the redistribution of resources throughout the union and an overview of recent budgetary reforms. Brian Ardy further extends this topic by concentrating upon the contribution made by the EU Budget to the stability of EMU. He describes the current structure of the EU Federal Budget before examining questions of interregional stabilization, insurance and redistribution.

The third part of the book seeks to apply the theory of fiscal federalism to establish parameters for the development of fiscal policy within EMU. The first contribution to this debate is written by Edward Gramlich and Paul Wood, and presents a general overview of fiscal and monetary policies under EMU. Writing with North Atlantic insights into European monetary integration in mind, Gramlich and Wood discuss the interaction between EU taxation and fiscal expenditure, the significance of fiscal policy and its combination with monetary policy under EMU. This overview is followed by the chapter of Robert Ackrill, which involves a critical evaluation of the requirement for fiscal federalism to be established to stabilize monetary union. From a discussion of fiscal functions and the significance of asymmetric external shocks to the proper functioning of EMU, Ackrill focuses upon the key question of whether national fiscal policy can provide a sufficient degree of stabilization in the face of an external shock. Hence, is fiscal federalism really needed?

The fourth and final part outlines the experience of mature fiscal federalism, utilizing the case studies found in Australia, Canada and Switzerland, and draws appropriate lessons for its distinctive role in European monetary union. The first contribution to this section, by Graeme Wells and Jeff Petchey, outlines the evolution of the Australian federal system. Their analysis notes the tendency for regional unions of states to embrace centralist structures at the expense of member state autonomy. This case study can be contrasted with the experience of the Swiss version of federalism, as described by René Frey and Christoph Schaltegger, which has developed its distinct balance between region and centre due to the interaction between the three different language groups within the Swiss federation. Indeed, the maintenance of the federal identity probably requires a significant decentralization of power to regional governments, in order to give expression to differences in culture and policy preferences. Frey and Schaltegger discuss the balance between autonomy, fragmentation and federal coherence, utilizing Hirschman's (1970) terminology of voice, exit and loyalty. Finally, in this section,

Tracy Snoddon details the Canadian system of fiscal federalism, with particular emphasis upon regional adjustment to asymmetric shocks, together with the impact of fiscal policy upon regional convergence. Once again, the Canadian system is designed to preserve national coherence in a very large country, containing different language groups. Nevertheless, as each of these case studies demonstrates, the theory of fiscal federalism can be applied differently in individual federations as a consequence of their unique population characteristics, geographical size and/or democratically determined priorities.

This book is relatively unique in its coverage of these themes within one text, as well as its inclusion of contributions from many of the world's experts on these issues within one volume. The editorial content of the book endeavours to remain neutral in the sense that none of the arguments contained in the volume are presented as being superior to any other, thereby leaving it up to the reader to draw their own conclusions regarding the necessity or inadvisability of fiscal federalism within EMU. Furthermore, great efforts have been made to ensure that the content of the book is as 'readable' as possible, and thereby prove accessible to both undergraduate students, specializing in European studies, economics or politics, as well as providing useful reference material for postgraduates and academics.

Note

- 1 Seigniorage occurs where the purchasing power of government securities is eroded by inflation, thus providing an inexpensive method to finance public expenditure by, in effect, borrowing at very low real rates of interest. Thus, if a government issues securities paying an interest rate of 3 per cent, when inflation is at 10 per cent, it is in effect borrowing money at a 7 per cent negative real interest rate. Seigniorage is particularly significant in small, regulated markets with a limited choice of investment opportunities, and in economies susceptible to high rates of inflation.

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Part I

Theory of fiscal federalism

1 An essay on fiscal federalism¹

Wallace E. Oates

Introduction

Fiscal decentralization is in vogue. Both in the industrialized and in the developing world, nations are turning to devolution to improve the performance of their public sectors. In the United States, the central government has turned back significant portions of federal authority to the states for a wide range of major programmes, including welfare, Medicaid, legal services, housing, and job training. The hope is that state and local governments, being closer to the people, will be more responsive to the particular preferences of their constituencies and will be able to find new and better ways to provide these services. In the United Kingdom, both Scotland and Wales have opted under the Blair government for their own regional parliaments. And in Italy the movement toward decentralization has gone so far as to encompass a serious proposal for the separation of the nation into two independent countries. In the developing world, we likewise see widespread interest in fiscal decentralization with the objective of breaking the grip of central planning that, in the view of many, has failed to bring these nations onto a path of self-sustaining growth.

But the proper goal of restructuring the public sector cannot simply be decentralization. The public sector in nearly all countries consists of several different levels. The basic issue is one of aligning responsibilities and fiscal instruments with the proper levels of government. As Alexis de Tocqueville observed more than a century ago, 'The federal system was created with the intention of combining the different advantages which result from the magnitude and the littleness of nations' (1980, 1: 163). But to realize these 'different advantages,' we need to understand which functions and instruments are best centralized and which are best placed in the sphere of decentralized levels of government. This is the subject matter of fiscal federalism. As a sub-field of public finance, fiscal federalism addresses the vertical structure of the public sector. It explores, both in normative and positive terms, the roles of the different levels of government and the ways in which they relate to one another through such instruments as intergovernmental grants.²

My purpose in this essay is not to provide a comprehensive survey of fiscal federalism. I begin with a brief review and some reflections on the traditional

theory of fiscal federalism: the assignment of functions to levels of government, the welfare gains from fiscal decentralization, and the use of fiscal instruments. I then turn to some of the new directions in recent work in the field and explore a series of current topics: laboratory federalism, inter-jurisdictional competition and environmental federalism, the political economy of fiscal federalism, market-preserving federalism, and fiscal decentralization in the developing and transitional economies. Some of this research is expanding the scope of the traditional analyses in important and interesting ways. This will provide an opportunity both to comment on this new work and to suggest some potentially fruitful avenues for further research.

The basic theory of fiscal federalism

The traditional theory of fiscal federalism lays out a general normative framework for the assignment of functions to different levels of government and the appropriate fiscal instruments for carrying out these functions (e.g., Richard Musgrave, 1959). At the most general level, this theory contends that the central government should have the basic responsibility for the macroeconomic stabilization function and for income redistribution in the form of assistance to the poor. In both cases, the basic argument stems from some fundamental constraints on lower level governments. In the absence of monetary and exchange rate prerogatives and with highly open economies that cannot contain much of the expansionary impact of fiscal stimuli, provincial, state, and local governments simply have very limited means for traditional macroeconomic control of their economies. Similarly, the mobility of economic units can seriously constrain attempts to redistribute income. An aggressive local programme for the support of low-income households, for example, is likely to induce an influx of the poor and encourage an exodus of those with higher income who must bear the tax burden.³ In addition to these functions, the central government must provide certain 'national' public goods (like national defence) that provide services to the entire population of the country.

Decentralized levels of government have their *raison d'être* in the provision of goods and services whose consumption is limited to their own jurisdictions. By tailoring outputs of such goods and services to the particular preferences and circumstances of their constituencies, decentralized provision increases economic welfare above that which results from the more uniform levels of such services that are likely under national provision. The basic point here is simply that the efficient level of output of a 'local' public good (i.e., that for which the sum of residents' marginal benefits equals marginal cost) is likely to vary across jurisdictions as a result of both differences in preferences and cost differentials. To maximize overall social welfare thus requires that local outputs vary accordingly.

These precepts, however, should be regarded more as general 'guidelines' than firm 'principles'. As has been pointed out in the literature, there is

certainly some limited scope for decentralized macroeconomic efforts (Edward Gramlich, 1987) and for assistance to the poor. In particular, there is a theoretical case for some poor relief at local levels (Mark Pauly, 1973), and the fact is that state and local governments undertake a significant amount of redistributive activity.⁴

Moreover, this prescription is quite a general one. It does not offer a precise delineation of the specific goods and services to be provided at each level of government. And indeed the spatial pattern of consumption of certain goods and services like education and health is open to some debate. As a result, we find in cross-country comparisons some divergence in just what is considered, say, 'local' in its incidence. The specific pattern of goods and services provided by different levels of government will thus differ to some extent in time and place.⁵ This is to be expected. Nonetheless, there remains much to be said for the basic principle of fiscal decentralization: the presumption that the provision of public services should be located at the lowest level of government encompassing, in a spatial sense, the relevant benefits and costs.⁶

Let me offer three observations on the general theory. First, the foundations of the Decentralization Theorem need some elaboration. The theorem is itself a straightforward normative proposition that states simply that '... in the absence of cost-savings from the centralized provision of a [local public] good and of interjurisdictional externalities, the level of welfare will always be at least as high and typically higher if Pareto-efficient levels of consumption are provided in each jurisdiction than if *any* single, uniform level of consumption is maintained across all jurisdictions' (Oates, 1972: 54). The theorem thus establishes, on grounds of economic efficiency, a presumption in favor of the decentralized provision of public goods with localized effects. While the proposition may seem trivially obvious, it is of some interest both in terms of setting forth the conditions needed for its validity and, with some further analysis, for providing some insights into the determinants of the magnitude of the welfare gains from fiscal decentralization (Oates, 1998).

But there is more to the story. The presumption in favour of decentralized finance is established by simply assuming that centralized provision will entail a uniform level of output across all jurisdictions. In a setting of perfect information, it would obviously be possible for a benevolent central planner to prescribe the set of differentiated local outputs that maximizes overall social welfare; there would be no need for fiscal decentralization (although one might wish to describe such an outcome as decentralized in spirit!). The response to this observation has been twofold. First, one can realistically introduce some basic imperfections (or symmetries) in information. More specifically, individual local governments are presumably much closer to the people and geography of their respective jurisdictions; they possess knowledge of both local preferences and cost conditions that a central agency is unlikely to have. Second, there are typically political pressures (or perhaps even constitutional constraints) that limit the capacity of central governments to provide higher levels of public services in some jurisdictions than others. These constraints

tend to require a certain degree of uniformity in central directives. There are thus important informational and political constraints that are likely to prevent central programmes from generating an optimal pattern of local outputs.

My second observation concerns the magnitude of the welfare gains from fiscal decentralization. We can, in principle, measure the gains from the decentralized provision of public goods relative to a more uniform, centrally determined level of output. The theory suggests that the magnitude of these gains depends both on the extent of the heterogeneity in demands across jurisdictions and on any inter-jurisdictional differences in costs. In particular, we find that the potential gains from decentralization stemming from inter-jurisdictional differences in demand vary inversely with the price elasticity of demand. If the costs of provision are the same across jurisdictions, but demands differ, then the extent of the welfare loss from a centrally imposed, uniform level of output increases, other things equal, with the price inelasticity of demand.⁷ There is a large body of econometric evidence that finds that the demand for local public goods is typically highly price inelastic. This suggests that the potential welfare gains from decentralized finance may well be quite large.⁸

Pursuing this point into the realm of positive economics, we might expect the magnitude of the potential gains from fiscal decentralization to have some explanatory power. Where these gains are large, we would expect to find that the public sector is more decentralized. In exploring this issue some years ago, I found some (perhaps vague) evidence in its support: in a sample of countries, the fiscal share of the central government varied inversely with an index of 'sectionalism,' a measure of the extent to which people in geographical sub-areas of a country identify 'self-consciously and distinctively with that area' (Oates, 1972: 207–8). More recently, Koleman Strumpf and Felix Oberholzer-Gee (1998), in a more sharply focused study of states and counties in the United States, find that the decision to allow counties a local option to legalize the consumption of alcoholic beverages depends significantly on a measure of the heterogeneity in preferences across counties within each state. There is, I think, some interesting work to be done in exploring the extent to which the potential gains from decentralization can explain the observed variation in actual governmental structure and policies.⁹

Third, I sense a widespread impression, suggested in some of the literature, that the gains from decentralization have their source in the famous Tiebout model (Tiebout, 1956). In this model, highly mobile households 'vote with their feet: they choose as a jurisdiction of residence that locality that provides the fiscal package best suited to their tastes. In the limiting case, the Tiebout solution does indeed generate a first-best outcome that mimics the outcome in a competitive market. But the gains from decentralization, although typically enhanced by such mobility, are by no means wholly dependent upon them.¹⁰ In fact, if there was absolutely nothing – mobile households, factors, or whatever, there would still exist, in general, gains from decentralization. The point here is simply that even in the absence of mobility, the efficient level of output of a 'local' public good, as determined by the Samuelson condition that

the sum of the marginal rates of substitution equals marginal cost, will typically vary from one jurisdiction to another. To take one example, the efficient level of air quality in Los Angeles is surely much different from that in, say, Chicago.

This point is of importance, because the Tiebout model is often viewed as a peculiarly United States construction. The relatively footloose households that it envisions, responding to such things as local schools and taxes, seem to characterize the United States much better than, say, most European countries. As a result, observers outside the United States tend to believe that this strand of the theory of local finance is of limited relevance in their settings. While there may well be some truth to this, it most emphatically does not follow that there are no longer any significant welfare gains from the decentralized provision of public goods.

Fiscal instruments in a federal system

To carry out their functions, the various levels of government require specific fiscal instruments. On the revenue side, governments will typically have access to tax and debt instruments. But in a federal system there is a further method for allocating funds among the different levels of the public sector: intergovernmental grants. One level of government may generate tax revenues in excess of its expenditures and then transfer the surplus to another level of government to finance part of the latter's budget. I want to review and comment briefly on the use of these fiscal instruments in a federal fiscal system.

Taxation in a federal system

The determination of the vertical structure of taxes is known in the literature as the 'tax-assignment problem' (McLure 1983). And the basic issue here is the normative question: Which taxes are best suited for use at the different levels of government? The question is typically posed in a setting in which there exists a nation state with a central government, where there is little or no mobility across national borders; at decentralized levels, in contrast, economic agents, goods, and resources have significant mobility across jurisdictional boundaries with the extent of this mobility increasing at successively lower levels of government. 'Local' government, for analytical purposes, may sometimes be characterized as operating in a setting in which economic units can move without cost among jurisdictions.

The difference in the mobility of taxed units at the central and decentralized levels has important implications for the design of the vertical structure of taxation. Taxes, as we know, can be the source of distortions in resource allocation, as buyers shift their purchases away from taxed goods. In a spatial setting, such distortions take the form of locational inefficiencies, as taxed units (or owners of taxed items) seek out jurisdictions where they can obtain relatively favourable tax treatment. High excise taxes in one jurisdiction, for

example, may lead purchasers to bear unproductive travel costs in order to purchase the taxed items in jurisdictions with lower tax rates.

Such examples can suggest that decentralized levels of government should avoid the taxation of highly mobile economic units (be they households, capital, or final goods). But this in itself is not correct. The real implication is that decentralized levels of government should avoid *non-benefit* taxes on mobile units. Or, more accurately, the analysis shows that on efficiency grounds decentralized governments *should* tax mobile economic units with benefit levies. Such economic units, in short, should pay for the benefits that they receive from the public services that local governments provide to them.

The most well-known case of this is the earlier-discussed Tiebout model in which local jurisdictions use benefit taxes that effectively communicate to households the cost of consuming different levels of local public goods; this results in an efficient pattern of consumption of these goods. But this is true not only for households. If local governments provide local inputs that increase the productivity of capital employed in their jurisdictions, then they should levy benefit taxes on capital in order to provide the set of signals needed for the efficient deployment of capital across localities. In sum, efficiency requires not only that decentralized jurisdictions refrain from non-benefit taxation of mobile economic units, but that they actively engage in benefit taxation where the public sector provides services to these units.

The public sector must for various reasons rely to a substantial extent on non-benefit taxes. Redistributive programmes that provide assistance to the poor, for example, simply transfer income. But, as noted earlier, such programmes are not well suited to use at decentralized levels of government, where the mobility of economic units across local boundaries can undermine the workings of such programmes. It is for this reason that the literature suggests that non-benefit taxes, to the extent they are needed, are best employed by higher levels of government.

But provincial, state, and local governments do, in fact, make use of some such levies.¹¹ In a seminal treatment of this issue making use of an optimal taxation framework, Roger Gordon (1983) has explored the ramifications of the decentralized use of a wide range of non-benefit taxes. And Gordon finds several forms of potential distortion that result from an individual jurisdiction's ignoring the effects of its fiscal decisions elsewhere in the system; these include inefficiencies involving, for example, the 'exporting' of tax burdens, external congestion effects, and impacts on levels of revenues in other jurisdictions, as well as certain equity issues associated with a generally regressive pattern of tax incidence.¹²

The analysis suggests, moreover, some guidelines for the use of such taxes. A reliance on *resident-based* taxes rather than *source-based* taxes, for example, can lessen tax-induced distortions by reducing the scope for tax-exporting (Inman and Rubinfeld, 1996; McKinnon and Nechyba, 1997).¹³ The analysis, moreover, establishes a presumption for the taxation of relatively immobile

economic units. A particularly attractive tax base is unimproved land, since a tax on a factor or good in perfectly inelastic supply will not be the source of any locational inefficiencies. Such taxes (and any associated benefits from spending programmes) will simply be capitalized into local land values. Thus, fiscally hard-pressed city governments have at their disposal a tax base that cannot escape them through mobility. There is some evidence in this regard that the city of Pittsburgh, which has used a graded property tax under which land is taxed at five times the rate on structures, has experienced an expansion in building activity that might not have been forthcoming in the presence of a higher tax on mobile capital.

Intergovernmental grants and revenue sharing

Intergovernmental grants constitute a distinctive and important policy instrument in fiscal federalism that can serve a number of different functions. The literature emphasizes three potential roles for such grants: the internalization of spillover benefits to other jurisdictions, fiscal equalization across jurisdictions, and an improved overall tax system.

Grants can take either of two general forms. They can be 'conditional grants' that place any of various kinds of restrictions on their use by the recipient. Or they can be 'unconditional,' that is, lump-sum transfers to be used in any way the recipient wishes. The theory prescribes that conditional grants in the form of matching grants (under which the grantor finances a specified share of the recipient's expenditure) be employed where the provision of local services generates benefits for residents of other jurisdictions.

The rationale here is simply the usual Pigouvian one for subsidies that induce individuals (in this case policy-makers or the electorate) to incorporate spillover benefits into their decision-making calculus. The magnitude of the matching shares, in such instances, should reflect the extent of the spillovers.¹⁴

In contrast, unconditional grants are typically the appropriate vehicle for purposes of fiscal equalization. The purpose of these grants is to channel funds from relatively wealthy jurisdictions to poorer ones. Such transfers are often based on an equalization formula that measures the 'fiscal need' and 'fiscal capacity' of each province, state, or locality. These formulae result in a disproportionate share of the transfers going to those jurisdictions with the greatest fiscal need and the least fiscal capacity.¹⁵

Although widely used, equalizing intergovernmental grants are by no means a necessary feature of fiscal federalism (Usher, 1995; Boadway, 1996). Economists normally think of redistributive measures from rich to poor as those that transfer income from high- to low-income individuals. Intergovernmental equalizing transfers require a somewhat different justification based on social values.¹⁶ In practice, such equalizing grants play a major role in many countries: in the fiscal systems of Australia, Canada, and Germany, for example, there are substantial transfers of income from wealthy provinces or states to poorer ones. In the United States, in contrast, equalizing grants from

the federal to state governments have never amounted to much. Intergovernmental grants in the United States typically address specific functions or programmes, but usually do not accomplish much in the way of fiscal equalization. At the levels of the states, however, there are many such programmes under which states provide equalizing grants to local jurisdictions – notably school districts.

Fiscal equalization is a contentious issue from an efficiency perspective. Some observers see such grants as playing an important role in allowing poorer jurisdictions to compete effectively with fiscally stronger ones. This view holds that, in the absence of such grants, fiscally favoured jurisdictions can exploit their position to promote continued economic growth, some of which comes at the expense of poorer ones. Fiscal equalization, from this perspective, helps to create a more level playing field for interjurisdictional competition.¹⁷

But the case is not entirely persuasive. Others have argued that fiscal equalization can stand in the way of needed regional adjustments that promote development in poorer regions. McKinnon (1997a), for example, contends that in the United States, the economic resurgence of the South following World War II resulted from relatively low levels of wages and other costs. It was this attraction of low wages and costs that ultimately induced economic movement to the South, bringing with it a new prosperity. Fiscal equalization, from this perspective, may actually hold back the development of poorer areas by impeding the needed interregional flow of resources (both emigration and immigration) in response to cost differentials.

But the primary justification for fiscal equalization must be on equity grounds. And it is as a redistributive issue that it continues to occupy a central place on the political stage. In some cases, as in Canada, it may provide the glue necessary to hold the federation together. In other instances, like Italy, it may become a divisive force, where regions, weary of large and long-standing transfers of funds to poorer areas, actually seek a dissolution of the union. Fiscal equalization is a complex economic and political issue.

The third potential role for intergovernmental grants is to sustain a more equitable and efficient overall tax system. For reasons we have discussed, centrally administered, non-benefit taxes with a single rate applying to the national tax base will not generate the sorts of locational inefficiencies associated with varying rates across decentralized jurisdictions. Moreover, central taxes can be more progressive, again without establishing fiscal incentives for relocation. There is, in fact, considerable evidence to indicate that state and local systems of taxes are typically more regressive than central taxation (e.g., Chernick, 1992). There is thus some force in an argument for ‘revenue sharing’ under which the central government effectively serves as a tax-collecting agent for decentralized levels of government.¹⁸ The central government then transfers funds, in a presumably unconditional form, to provinces, states, and/or localities. It is certainly possible, where the polity wishes, to build equalizing elements into these transfers. While there is here a real case for the use of

intergovernmental grants, a most important qualification is that such a system of grants must not be too large in the sense of undermining fiscal discipline at lower levels of government.

The prescriptive theory of intergovernmental grants thus leads to a vision of a system in which there exists a set of open-ended matching grants, where the matching rates reflect the extent of benefit spillovers across jurisdictional boundaries, and a set of unconditional grants for revenue sharing and, perhaps, equalization purposes. Such a conception has, however, only modest explanatory power. We do, in fact, find federal matching programmes that have supported a number of state and local activities with spillover effects, including, for example, grants for inter-state highway construction. However, on closer examination, important anomalies appear. These grants are often closed, rather than open, ended. Thus, they do not provide incentives for expansion at the margin. Moreover, the federal matching shares are typically much larger than justifiable by any plausible level of spillover benefits. More generally, in a careful study of the intergovernmental grant system, Inman (1988) concludes that the economic theory of intergovernmental grants does not provide a very satisfactory explanation of the structure of US grant programmes; he finds that a political model can do a much better job of explaining these programmes.¹⁹

Some years ago, David Bradford and I (1971a and b) tried to lay the foundations for a positive theory of the response to intergovernmental grants by setting forth a framework in which the budgetary decisions of the recipients of such grants are treated explicitly in a collective-choice setting. In short, we treated these grants, not as grants to an individual decision-maker, but rather as grants to polities that make budgetary decisions by some collective algorithm (such as simple majority rule). This exercise produced some intriguing equivalence theorems. For example, it is straightforward to show that a lump-sum grant to a group of people is fully equivalent in all its effects, both allocative and distributive, to a set of grants directly to the individuals in the group. Moreover, this result applies to an important class of collective-choice procedures, encompassing several of the major models employed in the public-finance literature. These theorems, known as the 'veil hypothesis,' thus imply that a grant to a community is fully equivalent to a central tax rebate to the individuals in the community; intergovernmental grants, according to this view, are simply a 'veil' for a federal tax cut.

The difficulty is that this hypothesis has not fared well in empirical testing. It implies that the budgetary response to an intergovernmental transfer should be (roughly) the same as the response to an equal increase in private income in the community. But empirical studies of the response to grants have rejected this equivalence time and again. Such studies invariably find that state and local government spending is much more responsive to increases in intergovernmental receipts than it is to increases in the community's private income. And this has come to be known as the 'flypaper effect' – money sticks where it hits. While this finding may not be all that surprising, it is not so

easy to reconcile with models of rational choice, for it suggests that the same budget constraint gives rise to different choices depending on what form the increment to the budget takes. There is now a large literature that tries in a variety of ways (some quite ingenious) to explain the flypaper effect.²⁰ James Hines and Richard Thaler (1995) have suggested that this is just one of a more general class of cases where having money on hand (e.g., from grants) has a much different effect on spending behaviour than where the money must be raised (e.g., by taxation).

Much of the early empirical work on the expenditure response to inter-governmental grants studied the period from the 1950s through the 1970s when these grants exhibited a continuing path of expansion. As a result, much of the interest focused on the budgetary response to increases in grants. However, in more recent times, efforts at fiscal retrenchment and devolution have led to large cuts in a wide range of federal grant programmes. And this has raised the interesting and important question of whether the response to cuts in grants is similar in sign and magnitude to the response to increases in these grants. Gramlich (1987), for example, observed that during this period of retrenchment, state and local governments responded to the cutbacks in grants by picking up much of the slack: they increased their own taxes and replaced in large part the lost grant funds so as to maintain levels of existing programmes. If Gramlich is right, then we should observe a basic asymmetry in response: the spending of recipients should be more responsive to increases in grant monies than to decreases in these revenues.

This issue is of some importance if we are to understand the budgetary implications of the ongoing process of fiscal decentralization. In the first study of this issue, William Stine (1994), examining the response of county governments in Pennsylvania, found just the opposite of Gramlich's prediction: his estimates imply that these county governments not only failed to replace lost grant revenues, but that they reduced their spending from own-revenues on these programmes as well, giving rise to a 'super-flypaper effect.' There are, however, some tricky and troublesome issues of measurement and interpretation in the Stine study. Subsequently, pursuing national aggregate data on the state local government sector, Shama Gamkhar and I (1996) were unable to reject the hypothesis that the expenditure response to increases and decreases in intergovernmental grants has the same absolute value per dollar of grants. Our findings are thus consistent with the proposition that the flypaper effect operates symmetrically in both directions. But clearly much remains to be done on this issue.

A note on jurisdictional boundaries

The treatment to this point has implicitly taken as given a pattern of boundaries that divide the nation-state into a set of jurisdictions for decentralized governance. The existence and magnitude of spillover effects from localized public policies clearly depend on the geographical extent of the relevant

jurisdiction. One way to deal with such spillovers is to increase the size of the jurisdiction thereby internalizing all the benefits and costs. The problem, of course, is that such an extension may involve welfare losses from the reduced capacity to differentiate local outputs. There is clearly some kind of trade-off here between internalizing spillover benefits (and costs) and allowing local differentiation.

In practice, much of the problem stems from a set of existing boundaries that are largely historically and culturally determined and that may make little sense in terms of the economic and geographical realities. Consider, for example, the United States. Suppose that we were to begin with a *tabula rasa*, a completely undefined set of boundaries for states and localities. And we set for ourselves the task of laying out both a rational set of levels of government and borders for the jurisdictions at each level of government. One thing seems clear: such a system of jurisdictions would bear little resemblance to our existing map. The States, in particular, are quite poorly designed to deal with the provision of certain important public goods, notably environmental resources. To take one example, rivers were used historically (for understandable reasons) to mark off one state from another. But from the perspective of effective management of a public good, this is the worst sort of border. It means that two independent and autonomous jurisdictions are making decisions that affect the public good whose output they jointly share. It seems clear that it would make much more sense to place such resources within a single jurisdiction. My own surmise is that a much more rational map would probably entail (1) some fairly sizable regional governments that extend over water sheds, air sheds, and other environmental resources; (2) metropolitan governments that encompass centre cities and the suburbs that house many city workers; and (3) smaller local governments that allow groups of residents to determine services of relevance mainly to themselves.

But political realities being what they are, we can expect to continue our collective life with much the same map in place. There does, however, remain some flexibility in terms of creating useful compacts or associations of jurisdictions to deal with particular issues. The management of the Chesapeake Bay, for example, is in important organizational ways now the joint enterprise of the relevant states (Delaware, Maryland, Pennsylvania, and Virginia), and Washington, DC, with an important role also played by the federal government. Likewise, the recognition that the management of ground-level ozone involves pollutants that travel long distances across the mid-western and north-eastern parts of the United States has led, under congressional legislation in 1990, to the formation of an Ozone Transport Region (OTR) for the co-ordination of efforts to manage air quality in eleven eastern states and the District of Columbia. Such regional organizations can be seen as the outcome of a kind of Coasian process in which inter-jurisdictional externalities are addressed through negotiation and co-ordinated decision-making. The history of such enterprises, however, attests to their difficulty. The fascinating study by Bruce Ackerman *et al.* (1974), for example, of the attempt to create a

'model regional agency' in the form of the Delaware River Basin Commission, reveals all the complexities and perverse incentives that can bedevil such joint enterprises. Nevertheless, such co-ordination does, in principle, offer an important avenue for addressing such inter-jurisdictional concerns.

Laboratory federalism and welfare reform

It seems ironic in the light of the preceding treatment of principles (or guidelines) for fiscal federalism to find that welfare reform is in the vanguard of United States moves towards fiscal decentralization. The analysis suggests that the threat of mobility of both low and high income households will result in decentralized policies that provide too little assistance to the poor (sometimes described as a 'race-to-the-bottom'). Nevertheless, the decision has been made to shift the primary responsibility for poor relief back to the states. Under measures signed into law in 1996, the federal government has replaced the long-standing federal entitlement programmes, which came with both detailed rules and generous matching grants to the states, with a system of block grants with few strings attached. The states now have broad scope to determine both the form and levels of assistance under their programmes to assist poor households.²¹

How are we to understand this reform? Does it represent an outright rejection of the economic principles of fiscal federalism? My answer is a qualified no. There exists widespread recognition of, and concern with, the likely shortcomings of a decentralized system of poor relief. Policy-makers are well aware of the threat of strategic cuts in state levels of welfare support. But, as I read it, we have decided to live with this threat in order to seek out superior policy alternatives. And this brings us to another dimension of fiscal federalism: laboratory federalism.

In a setting of imperfect information with learning-by-doing, there are potential gains from experimentation with a variety of policies for addressing social and economic problems. And a federal system may offer some real opportunities for encouraging such experimentation and thereby promoting 'technical progress' in public policy. This point was made long ago by James Bryce (1888) who, in his insightful study of the US system of government, observed that 'Federalism enables a people to try experiments which could not safely be tried in a large centralized country' (I: 353). Better known is a later statement by Justice Louis Brandeis, who wrote in 1932 that:

There must be power in the States and the Nation to re-mould, through experimentation, our economic practices and institutions to meet changing social and economic needs. It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.

(Osborne, 1988)

It is my sense that this is the primary thrust behind the current welfare reform. There exists much disappointment and dissatisfaction with the operation and results under the traditional federal welfare programmes. But we really don't have a clear sense of how to restructure them to achieve our societal goals of providing needed relief and, at the same time, establishing an effective set of incentives to move people off welfare and into jobs. The recent legislation that transfers the responsibility for these programmes back to the states represents, I believe, a recognition of the failure of existing programmes and an attempt to make use of the states as 'laboratories' to try to find out what sorts of programmes can work.²²

There are, in fact, a number of important and intriguing examples of policies whose advent was at the state or local level and that later became fixtures of federal policy. Unemployment insurance, for example, was a state-level policy before the federal government made it effectively mandatory on a national scale in the 1930s. More recently, in the area of environmental policy, the experience in a number of states with their own forms of emissions trading was an important prelude to the adoption, in the 1990 Clean Air Act Amendments, of a national trading programme in sulfur allowances to address the problem of acid rain. Without this experience in a number of states, I seriously doubt that policy-makers would have been willing to introduce such a new and unfamiliar policy measure as tradeable emissions rights on a national scale. More generally, since the dawn of the nation, programmes successfully developed at the state level have often provided models for subsequent federal programmes.

States, of course, may learn from others so that the diffusion of successful policy innovations may be horizontal as well as vertical. Both forms of diffusion have been the subject of study by a number of political scientists. Virginia Gray (1973) and Everett Rogers (1983), for example, have found that the cumulative distribution of states by date of adoption takes the S-curve shape, familiar from the study of the spread of other forms of innovation. Others, like Jack Walker (1969), James Lutz (1987), David Huff *et al.* (1988), and David Nice (1994), have explored the geographical and other determinants of the pattern of adoptions by states. Empirical studies of vertical diffusion are less numerous. Thomas Anton (1989), Keith Boeckelman (1992), and Michael Sparer and Lawrence Brown (1996) have examined the extent to which federal measures draw on the experience of the states. Some of this literature is relatively sceptical of the link. Sparer and Brown, for example, argue that (at least for health care), 'these laboratory adoptions and adaptations are probably more the exception than the rule' (p. 196).

What are we to make of all this? A little reflection suggests first that there is nothing in principle to prevent the central government from undertaking limited experiments without committing the nation to an untested and risky policy measure. Indeed, there have been a number of such social experiments with, for example, income-maintenance and housing-allowance programmes that have generated valuable information about how programmes work and

the response of participants to various values of the key parameters. We don't necessarily need states as the 'laboratories' for experiments. At the same time, one might suspect that relatively independent efforts in a large number of states will generate a wider variety of approaches to public policy than a set of centrally designed experiments.

A basic problem here is that there has been little in the way of a real theory of laboratory federalism to organize our thought and to guide empirical studies. However, the beginnings of some theory are emerging, and they are quite illuminating. Susan Rose-Ackerman (1980) and, more recently, Strumpf (1997) have taken two quite different formal approaches to policy innovation in a federal system. One insight emerging from their analyses is an important, if familiar and unsurprising, one. There exists a basic 'information externality' in that states that adopt new and experimental policies generate valuable information for others. And this creates a standard sort of incentive for free-riding. From this perspective, we might expect too little experimentation and policy innovation in a highly decentralized public sector. Indeed, as Strumpf shows, it is unclear whether a centralized or decentralized outcome will result in more policy innovation.²³

The underprovision of experimentation at state and local levels can be addressed through a system of subsidies to encourage these activities. And this raises another point regarding existing welfare reform in the United States. Under earlier programmes, federal aid took a matching form such that the federal government effectively shared the costs and risks of new state-level programmes. But under the new welfare reform measures, matching aid has been replaced by block grants. This in itself serves to reduce incentives for experimentation. There are some conflicting incentives here. On the one hand, the new legislation gives the states broader scope for experimentation, but it places the full cost of any new measures on the state with no sharing from the centre. The net outcome on the amount of experimentation is thus a priori unclear.

More generally, we need a lot more work on the implications of fiscal decentralization for both the amount and kinds of policy experimentation and innovation. As I have suggested, there are some clear and important cases where innovation and experimentation at state and local levels have led to new policy measures that have had broad national application. But it is much less clear how we are to understand this experience in terms of the overall effectiveness of a federal system in policy innovation.

Inter-jurisdictional competition and environmental federalism: a challenge to the basic view

The preceding sections have set forth an economic conception of a federal system. It is one in which the central government plays the major role in macro-economic stabilization policies, takes the lead in redistributive measures for support for the poor, and provides a set of national public goods. Decentralized

levels of government focus their efforts on providing public goods whose consumption is limited primarily to their own constituencies. In this way, they can adapt outputs of such services to the particular tastes, costs, and other circumstances that characterize their own jurisdictions. The general idea of decentralizing the provision of public services to the jurisdictions of concern has been widely recognized. It manifests itself clearly on both sides of the Atlantic. We see it in Europe under the nomenclature of the 'principle of subsidiarity,' where it is explicitly enshrined in the Maastricht Treaty as a fundamental principle for European union. In the United States, it often appears more informally as an aversion to the 'one size fits all' approach. Somewhat paradoxically, however, this view is the subject of a widespread and fundamental challenge both at the theoretical and policy levels.

The source of this challenge is the claim that inter-jurisdictional competition among decentralized levels of government introduces serious allocative distortions. In their eagerness to promote economic development with the creation of new jobs (so the argument goes), state and local officials tend to hold down tax rates and, consequently, outputs of public services so as to reduce the costs for existing and prospective business enterprise. This results in a 'race-to-the-bottom' with sub-optimal outputs of public services.²⁴

This argument has a substantial history, for example, George Break (1967) made the case for the detrimental effects of inter-jurisdictional competition:

The trouble is that state and local governments have been engaged for some time in an increasingly active competition among themselves for new business. In such an environment government officials do not lightly propose increases in their own tax rates that go much beyond those prevailing in nearby states or in any area with similar natural attractions for industry . . . Active tax competition, in short, tends to produce either a generally low level of state-local tax effort or a state-local tax structure with strong regressive elements.

(Break, 1967: 23–4)

Fear of losing local business and jobs thus leads to sub-optimal levels of state and local public goods. Such competition can involve regulatory as well as purely fiscal policies. John Cumberland (1979, 1981) has extended the Break argument to encompass the setting of standards for local environmental quality. In the Break spirit, Cumberland contends that state and local governments engage in 'destructive interregional competition'. In order to attract new business and to create jobs, public officials compete by reducing local environmental standards to lower the costs of pollution control for firms that locate within their borders. In this instance, inter-jurisdictional competition leads to excessive environmental degradation. The implication of the Cumberland view is that national standards for environmental quality are needed to prevent the excessive levels of pollution forthcoming under state and local standard setting.

More recently, Alice Rivlin (1992) has echoed these views in her 'rethinking of US federalism'. Although advocating an extensive devolution of public-sector responsibilities to state and local government, Rivlin sees it as almost axiomatic that competition among the states results in inadequate levels of public services. Her remedy is a system of shared taxes under which the revenues from a new national value-added tax would be shared among the states. This, she argues, would free the states so that they would not have 'to worry so much about losing businesses to neighbouring states with lower tax rates' (p. 142).

This line of argument has proved quite powerful in the policy arena. There are strong forces for the 'harmonization' of fiscal and environmental measures in Europe that draw heavily on this proposition. Likewise, the case for the 'race-to-the-bottom' has provided basic support for the centralization of environmental management in the United States.

What I want to stress here is the fundamental character of this challenge to the basic model of fiscal federalism. The claim is that the decentralized provision of public services is basically flawed; in the words of one recent US observer, we need centralization in order to 'Save the States from Themselves' (Peter Enrich, 1996).²⁵

But is this claim in fact true? This turns out to be a very complicated question both in theoretical and empirical terms. There is now a substantial theoretical literature that addresses this issue. In one set of papers, my colleague Robert Schwab and I have developed a series of models that explore the conditions under which horizontal competition among governments is efficiency-enhancing (Oates and Schwab, 1988, 1991, 1996). It turns out that it is straightforward to develop an analogue to perfect competition in the private sector. In such a setting, governments compete with one another for a mobile capital stock that both generates income for local residents and provides a tax base for them and such competition leads local officials to adopt efficient levels of outputs of public goods and tax rates. In these models, the invisible hand works in much the same way as in the private sector to channel policy decisions in individual jurisdictions into an efficient outcome from a national perspective.

These models, moreover, are quite rich in terms of the variety of policy instruments. Public officials provide not only outputs for local residents, but public inputs that enhance the productivity of locally employed capital, and environmental regulations that impose costs on local business and improve local environmental quality. They finance these public outputs with a set of taxes on local residents and capital. And there is no race to the bottom here. Instead, jurisdictions find it in their own interest to charge benefit taxes that lead to efficient decisions in both the public and private sectors.²⁶

The problem is that these models make some strong assumptions. Let me note three of them here: jurisdictions behave as price-takers in national or international capital markets; public officials seek in their decisions to maximize the welfare of their constituencies; and these officials have access to

the needed fiscal and regulatory policy instruments to carry out their programmes efficiently. It is not hard to show (or surprising to find) that violations of any of these conditions can lead to distorted outcomes. Suppose, for example, that local policy-makers are Niskanen-type agents that seek to maximize, not the well-being of their constituencies, but rather the size of the local public budget. It is then straightforward to show that they will set excessively lax environmental standards in order to encourage a larger inflow of capital so as to enlarge the local tax base (Oates and Schwab 1988). The Oates-Schwab models provide a kind of baseline from which one can introduce a range of quite plausible and realistic modifications that can be the source of allocative distortions. A large number of papers explore outcomes either where jurisdictions are sufficiently large to have some influence over the price of capital or where local governments are restricted in their access to policy instruments and must, for example, tax business and household capital at the same rate. Many of these papers employ game-theoretic approaches in which there is strategic interaction among the jurisdictions (Wildasin 1988). In such settings, we find that outcomes can easily occur that involve sub-optimal levels of public outputs.²⁷

The theoretical literature thus generates some diverse findings on this issue. There seem to be some basic efficiency-enhancing aspects of inter-jurisdictional competition, but there are clearly a range of 'imperfections' that can be the source of allocative distortions. The real issue here is the magnitude of these distortions. Are we dealing with minor deviations from efficient outcomes or does such competition produce major welfare losses? The pure theory can't help us much in answering this question. Moreover, some of the terminology is not very helpful. In particular, the description of inter-jurisdictional competition as involving a 'race-to-the-bottom' seems quite misleading. Such a descriptive image may well be an effective rhetorical device: it conjures up a vision of one jurisdiction cutting its tax rates and lowering its environmental standards, only to be outdone by a neighbouring jurisdiction, in a process that leads to a downward spiral to the 'bottom' (suggesting a very bad outcome indeed). However, the models that generate these results are nothing of the sort. They are often game-theoretic models that produce Nash equilibria with sub-optimal public outputs as the outcome. What matters here is the extent of the sub-optimality. And the race-to-the-bottom terminology tends to obscure this issue.

Unfortunately, we do not have many empirical studies to bring to bear on this matter. There is a substantial descriptive literature addressing economic competition among state and local governments in the United States, with some interesting findings (Timothy Bartik, 1991). But this body of work really does not shed much light on the normative question of whether such competition is efficiency-enhancing or not (Paul Courant, 1994). In an interesting study that is of relevance, Anne Case, James Hines, and Harvey Rosen (1993) find evidence of strategic interaction in state-level fiscal policies. Using a similar methodology, Jan Brueckner (1998a) finds empirical support

for policy interdependence in the adoption of growth-control measures by local governments in California. But at this juncture, I think it is fair to say that the jury is still out on this matter. The welfare implications of inter-jurisdictional competition remain the subject of a lively ongoing debate with a real need for further empirical work to supplement the large theoretical literature. In my own view, the existing work is not sufficient to make a compelling case for the abandonment of (or basic-amendment to) the principle of fiscal decentralization. The case remains strong, it seems to me, for leaving 'local matters in local hands'. Moreover, as we shall see shortly, there is another literature that takes a very different (and unambiguously positive) view of the role of inter-jurisdictional competition.

Fiscal federalism: expanding the scope of the analysis

The normative framework for most of the literature in fiscal federalism (and for my treatment in this essay as well) consists of the traditional principles of welfare economics. From this perspective, institutions are evaluated in terms of their impact on efficiency in resource allocation and the distribution of income. However, the choice of a system of governance involves other values as well the extent of political participation the protection of individual rights, and the development of various civic virtues.

Political theorists throughout the ages have explored the ways in which different political systems address these various objectives of the polity. In addition, the vertical structure of government may have important implications for the way in which the public sector functions and its impact on the operation of a system of markets. In this section, I want to explore some of the new (and older) literature that addresses some broader implications of fiscal federalism.

Economic and political objectives in a federal system

The first issue involves extending the conceptual horizon to encompass additional political objectives. What might this add to our more narrowly focused economic view of fiscal federalism? Inman and Rubinfeld, in one strand of their important new work on fiscal federalism have (and are) exploring this issue in an attempt to redefine and extend the analytical framework to encompass some of these additional political and constitutional dimensions of public-sector structure. The approach of Inman and Rubinfeld (1997a, b and c) explicitly incorporates certain political goals into a more extended objective function. In such a setting, we find ourselves examining trade-offs between such goals as economic efficiency and political participation. In one such illustration, they present a 'federalism frontier' in which (over the relevant range) increased political participation comes at the expense of economic efficiency (1997a: 1230).

The basic presumption here is that more decentralized political systems are

conducive to increased citizen impact on political outcomes and political participation. The evidence on this issue, in truth, is somewhat mixed, but overall it suggests on balance 'that both citizen influence and effort increase as the size of government declines' (1997a: 1215). The basic political objectives thus strengthen the case for increased decentralization; they point to a system that is more decentralized than one chosen simply on the grounds of an exercise in economic optimization.

While this is suggestive at a general level, it raises the more difficult question of how one addresses these trade-offs in the actual design of fiscal institutions. How, for example, can we define and measure in a meaningful way the marginal rate of substitution between economic efficiency and political participation and incorporate this into the design of a political system? To approach this question in a substantive way requires the study of more specific issues. And here Inman and Rubinfeld (1997a) provide a provocative beginning with a careful study of 'anti-trust state-action doctrine'. This involves an intriguing series of Supreme Court decisions (in which state programmes that, had they been designed and introduced by producers themselves, would have constituted a violation of anti-trust laws) that were upheld on the basis of state legislative sovereignty. Although the history of this doctrine is a complicated one, it is interesting that the Court has seen fit to set aside, in certain instances, the presumed economic consequences of certain state regulations in favor of decentralized political choices, so long as they 'were decided by an open, participatory political process, as evidenced by state legislative involvement' (1997a: 1252).

It seems unlikely that we can ever hope to quantify such trade-offs in a formally satisfying way. But the Inman-Rubinfeld work does suggest that careful analysis can certainly help to clarify the nature of the trade-offs involved in the vertical design of the political system and allow economics to play a broader role in the debate. It is interesting, moreover, that the political objectives seem, on the whole, to strengthen the case for fiscal decentralization.

Public-sector institutions: market-preserving federalism

An alternative approach to federalism, related to the 'new institutional economics,' sees political decentralization in terms of its capacity to sustain a productive and growing market economy. From this perspective, Barry Weingast (1995), Ronald McKinnon (1997a), and their colleagues have explored the institutional structure of a system that promises to provide a stable framework for a market system (see also McKinnon and Nechyba, 1997; Qian and Weingast, 1997). Weingast's point of departure is a 'fundamental political dilemma of an economic system,' namely that 'a government strong enough to protect property rights and enforce contracts is also strong enough to confiscate the wealth of its citizens' (1995: 1).²⁸

The attraction of federalism for Weingast is its potential for providing a political system that can support an efficient system of markets. In a provocative

treatment, Weingast lays out a set of three conditions for a federal system that characterize what he calls 'market-preserving federalism'. These conditions require that (1) decentralized governments have the primary regulatory responsibility over the economy; (2) the system constitutes a common market in which there are no barriers to trade; and (3) decentralized governments face 'hard budget constraints'. By this last condition, Weingast means that lower-level governments have neither the capacity to create money nor access to unlimited credit. And it implies further that the central government does not stand ready to bail them out in instances of fiscal distress.

Weingast goes on to argue in historical terms that eighteenth-century England and the United States in the nineteenth century were effectively such systems of market-preserving federalism, and that this fostered in important and fundamental ways the process of economic growth. It proved critical, argues Weingast, to the Industrial Revolution in England and supported a system of 'thriving markets' in the United States throughout the nineteenth century.

McKinnon (1997a) has explored in more detail the importance of Weingast's last condition of a hard budget constraint. Crucial to this view is the separation of monetary and fiscal powers. In a federal system, if the central government controls the common currency, then lower-level governments will be limited to fiscal instruments and will not have access to the 'soft' option of monetized debt, as McKinnon points out, state and local governments in the United States engage in extensive debt as finance for capital projects. This makes good economic sense in terms of spreading the payments for long-lived capital projects over their useful life. But they have no recourse to public sources for funding this debt; they operate in private credit markets just like private borrowers. These markets themselves, through the determination of credit ratings and other forms of monitoring fiscal performance, create an environment in which the fiscal authorities must behave in responsible ways.²⁹ These markets, by creating a hard budget constraint in terms of debt finance, have imposed a very useful discipline on decentralized fiscal behaviour.³⁰

More generally, a hard budget constraint implies that decentralized governments must place a basic reliance on their own sources of revenues. They must not be overly dependent on transfers from above. I discussed in an earlier section the potential role for intergovernmental grants, but Weingast and McKinnon (as well as others) remind us of the important discipline that stems from self-financing. It is especially important that intergovernmental grants not be expansible in the sense that recipients can turn to the grant system to bail them out of fiscal difficulties (Wildasin, 1998b). In particular, public authorities need to fund their own expenditures at the margin.³¹

The institutional perspective reminds us that there is more to the design of a federal fiscal system than just the allocation of functions to the appropriate levels of government. In addition, we need sets of formal and informal institutions that embody the rights sorts of incentives for public decision-makers (Olson, 1990). These rules or procedures must make the costs of public

programmes as fully visible as their benefits in ways that make public officials accountable for their decisions (Shah, 1998).

The treatment of fiscal structure in this section is not unrelated to Geoffrey Brennan and James Buchanan's (1980) view of fiscal decentralization as a mechanism for controlling the size of the public sector. Drawing by analogy on the conventional theory of monopoly in the private sector, they envision the government sector as a monolithic agent, a 'Leviathan,' that seeks its own aggrandizement through maximizing the extraction of tax revenues from the economy. From this perspective, the design of the constitution and associated institutions has as a major objective the placing of a set of constraints that limits Leviathan's access to tax and other fiscal instruments. Fiscal decentralization can, in their view, play a most important role in constraining public sector growth. Competition among decentralized governments for mobile economic units greatly limits the capacity of Leviathan to channel resources into the public sector. As Brennan and Buchanan put it, competition among governments in the context of the 'inter-jurisdictional mobility of persons in pursuit of "fiscal gains" can offer partial or possibly complete substitutes for explicit fiscal constraints on the taxing power' (1980: 184).³²

The Brennan–Buchanan view suggests the hypothesis that the overall size of the public sector 'should be smaller, *ceteris paribus*, the greater the extent to which taxes and expenditures are de-centralized' (1980: 185). The evidence for this hypothesis is, however, at best mixed. For example, I was unable to find any systematic relationship between public-sector size and the extent of fiscal decentralization (Oates, 1985). However, some later and more disaggregated studies have found some tendencies of this kind (See Oates, 1989 for a survey of this work).

More generally, there is not much evidence on the relationship between fiscal decentralization and economic performance. But there is some. Jeff Huther and Anwar Shah (1996) at the World Bank have assembled a large and diverse set of indices for eighty nations. These indices encompass a wide variety of measures of economic and political structure and performance: quality of governance, political freedom, political stability, debt-to-GNP ratios, measures of income, the degree of equality in the distribution of income, and many more.

In examining the statistical associations among these various indices, they find in nearly every case a statistically significant and positive correlation between increased decentralization and improved performance (either in political or economic terms). There are obvious and important qualifications here. Such associations do not prove causation. In particular, the degree of fiscal decentralization is itself the outcome of a complex of political and economic forces. Nonetheless, the initial results are suggestive and invite further exploration. Elsewhere, Sang Loh Kim (1995), in an intriguing econometric study making use of an international panel data set, has estimated a Barro-type growth model. In addition to the usual explanatory variables, he included a measure of fiscal decentralization that, in most of his

estimated equations, has a significant and positive partial association with the rate of economic growth. Kim's findings thus support Shah's contention that fiscal decentralization enhances economic performance – in this case, more rapid economic growth. In contrast, Heng-fu Zou and his colleagues have found a negative relationship between economic growth and fiscal decentralization in two studies, one examining a sample of forty-six countries over the period 1970–89 (Davoodi and Zou, 1998) and the other a study of the growth of provinces in China (Zhang and Zou, 1998). Much obviously remains to be done at the empirical level in order to give us a better sense of the relationship of fiscal decentralization to economic and political performance.

There is also much more to do at the conceptual level. While Weingast's initial forays into market-preserving federalism are certainly provocative, they raise at least as many questions as they answer. It is fair, I think, to characterize the analysis as fairly 'loose' at this stage. For example, are Weingast's conditions for market-preserving federalism to be regarded as necessary or sufficient (or both) for an effective political foundation for a private market economy? Jonathan Rodden and Susan Rose-Ackerman (1997) have raised a number of probing questions concerning the Weingast analysis. There is clearly much to chew on here. The next step, it seems to me, is to attempt to formalize these relationships more explicitly so as to get a better sense of how different political and budgetary institutions influence the functioning of a market system. Finally, it is impossible to leave this section without noting an obvious irony that has no doubt occurred to the reader. In the earlier section on inter-jurisdictional competition, the central concern was that such competition leads to too little in the way of public outputs. There it was argued that competition for new firms and jobs may lead to public budgets that are too small, and to overly lax environmental standards. In contrast, the thrust of this section has been on the beneficial effects of competition as a disciplining force that restrains the tendencies in the public sector towards excessive spending and other forms of fiscal misbehaviour. One's view of the role of intergovernmental competition clearly depends on how one views the operation of the public sector more generally!

Fiscal decentralization and economic development

When examining international cross-sectional data on intergovernmental structure, one is immediately struck by the sharp contrast in the extent of fiscal decentralization in the industrialized and developing countries. In a study of my own involving a group of forty-three countries (Oates, 1985), the sample statistics revealed an average share of central government spending in total public expenditure of 65 per cent in the subsample of eighteen industrialized countries, as contrasted to 89 per cent in the subsample of twenty-five developing nations. In terms of total public revenues, the central government share for this same subsample of developing countries was over 90 per cent!

Although there are real concerns with the accuracy of some of these fiscal

data (Richard Bird, 1986), the general presumption that the developing countries are characterized by relatively high degrees of fiscal centralization seems firmly grounded. And this, moreover, is not something new. Writing over forty years ago, Alison Martin and W. Arthur Lewis (1956) noted that 'the weakness of local government in relation to central government is one of the most striking phenomena of under-developed countries' (p. 231). What are we to make of this? Some observers attribute the poor economic performance of many of the developing countries in large measure to the failure of central planning and make a strong case for the devolution of fiscal responsibilities. But the issue is clearly more complicated than this. In particular, the question arises as to whether fiscal decentralization is a cause or a result of economic development. Roy Bahl and Johannes Linn (1992), for example, argue that as economies grow and mature, economic gains from fiscal decentralization emerge. As they put it, 'Decentralization more likely comes with the achievement of a higher stage of economic development' (p. 391); the 'threshold level of economic development' at which fiscal decentralization becomes attractive 'appears to be quite high' (p. 393). From this perspective, it is economic development that comes first; fiscal decentralization then follows. But not all would agree. More generally, it seems to me, we must regard intergovernmental structure as part of a larger political and economic system that both influences and is determined by the interplay of a variety of political and economic forces. It may well be that fiscal decentralization itself has a real contribution to make to improved economic and political performance at different stages of development.

To gain further insight into this issue, we might turn to the historical experience of the industrialized countries and examine the course of fiscal decentralization through extended periods of economic growth. This, in fact, does not prove to be very helpful. If we look at the United States, for example, we find that in the late nineteenth century the public sector was both very small and highly decentralized. At the turn of the century, the public sector accounted for only about 8 per cent of GNP in the United States, while the central government share of total public expenditure was around 30–35 per cent. By 1955, the central government share of public spending had roughly doubled from one-third to two-thirds.³³ The fiscal records of other industrialized nations like Great Britain reveal roughly similar patterns.

The point is that the trend over this period of economic growth was *not* one of increasing fiscal decentralization; it was just the reverse! It is worth noting, however, that these centralizing tendencies seem to have played out around the middle of the century. For most of the industrialized countries, fiscal centralization ratios appear to have peaked in the decade of the 1950s, and since that time, they have actually declined slightly in most cases (Oates, 1978; Pommerehne, 1977). What typically seems to be taking place is a complicated process of intergovernmental evolution. We see efforts at devolution in a number of OECD countries accompanied, at the same time, by the emergence of a new top layer of government in the European Union.

But all this may not have much relevance for the developing nations. This is because they have a very different starting point for the growth process. As Diana Conyers (1990) stresses, 'most less developed countries inherited relatively centralized systems of governments from their colonial powers, and in the first years of independence there was often a tendency to maintain – if not strengthen – central control and centralized systems of planning, in order to encourage a sense of national unity and reinforce the new government and its policies' (p. 16). Thus, many of these countries entered upon nationhood with highly centralized government sectors; they have not undergone anything like the process of public-sector evolution experienced in the industrialized countries.

The implication of all this is that the potential of fiscal decentralization for improving economic and political performance must be evaluated in terms of the specific circumstances that characterize the current state of a developing nation. There remains, in my view and that of some others (Shah, 1994), a strong case on traditional grounds for a significant degree of decentralization in public-sector decision-making in the developing nations. This case, as we have discussed, rests both on the potential economic gains from adapting levels of public outputs to specific regional or local conditions and on the political appeal of increased participation in governance. The economic case has been made formally in purely static terms (as noted earlier in the treatment of the Decentralization Theorem), but it may well have some validity in a dynamic setting of economic growth. Development policies that are sensitive to particular regional or local needs for infrastructure and even human capital are likely to be more effective in promoting economic growth than are centrally determined policies that largely ignore these geographical differences. There exists, incidentally, no formal theory of fiscal decentralization and economic growth; it might be useful to set out such a theory, for a framework that incorporates jurisdiction-specific investment programmes might provide some insights into the parameters on which improved growth performance depends.³⁴

The prescriptive literature on fiscal structure for the developing countries harks back directly to several of the points made in the preceding sections. In particular, there is a heavy emphasis on reliance on own finance in order to create hard budget constraints. This can have special relevance in the developing country context, where decentralized governments often have very limited access to their own major sources of tax and other revenues and are heavily dependent on transfers from above. In some instances, provincial or state governments may even have access to the public banking system to absorb their debt issues. This predictably leads to large budgetary deficits and both fiscal and monetary instability.

This literature makes reference to the problem of 'vertical imbalance', meaning a disparity between different levels of government in their expenditure commitments and their access to revenues. Although the concept suffers from certain ambiguities, it does focus attention on the important issue of the

widespread inadequacy of revenue sources at decentralized levels of government. The often heavy reliance of provincial, state, and local governments on transfers from above undercuts incentives for responsible fiscal decision making; fiscal decisions become outcomes of politically driven negotiations between central and 'local' authorities, not the result of weighing benefits and costs of prospective public programmes.

The case for establishing adequate and effective tax systems at decentralized levels of government is one of the critical issues of fiscal federalism in the developing world. And it is a truly challenging problem (Bahl and Linn, 1992; Bird, 1992). The earlier section dealing with the tax-assignment problem set forth some of the properties of 'good' taxes at decentralized levels of government. But provincial and local governments in developing countries often face serious obstacles to the use of these tax bases. The scope, for example, for using local property taxes is circumscribed in many instances by the absence of the requisite institutions for tax administration. As Bahl and Linn (1992) point out, there is typically more potential for such taxes in urban than in rural areas in most developing countries. The obstacles are real, but there are ongoing and extensive efforts to build up the administrative capacity for more effective revenue systems.

Fiscal reform efforts in the developing world thus must focus on: (1) restructuring systems of intergovernmental grants, in some instances to reduce the extent of financing that they provide to decentralized levels of government, and, more generally, to remove the perverse incentives that they often embody for fiscal behaviour on the part recipients; (2) redesigning revenue systems so as to provide decentralized levels of government a much expanded access to own-revenues to finance their budgets and thereby reduce their dependence on transfers from above; and (3) reviewing the use and restrictions on debt finance to ensure that debt issues are not a ready way to finance deficits on the current account. All three of these avenues of reform contribute important ways to the establishment of a hard budget constraint, but one that permits decentralized levels of government to do their job. Finally, running through all these dimensions of fiscal reform is the crucial attention to fiscal decision-making institutions and procedures themselves to introduce mechanisms that provide incentives for public officials to act in the public interest; this means largely, as Shah (1998) stresses, establishing channels for accountability.³⁵

In the interim, provincial and local governments cannot be left to fend entirely for themselves; depending on the specific circumstances, there will often be a need for significant transfers from the centre, especially to impoverished jurisdictions. But the general direction of needed reform seems clear. The ongoing efforts to decentralize the public sectors of former socialist states encounter much the same set of issues. But the problems are in some ways even more complicated, inasmuch as the process of decentralization is going on alongside a process of privatization; the complicated and sometimes chaotic transition from a command economy to a market system does not provide

a stable environment within which to restructure the public sector. Nevertheless, a comprehensive process of fiscal decentralization is underway in much of Central and Eastern Europe, and it involves the same issues of defining the fiscal responsibilities of the different levels of government and introducing the fiscal instruments and procedures needed both to support emerging private markets and to deliver needed public services (Bird, Ebel, and Wallich, 1995).

Some concluding observations

The evolution of the vertical structure of the public sector continues in interesting and novel ways. As I noted earlier, the first half of the twentieth century was characterized by a strong trend toward increased fiscal centralization. Indeed, some acute political observers in the nineteenth century forecast this trend. de Tocqueville, writing in the first half of the nineteenth century, predicted that 'in the democratic ages which are opening upon us . . . centralization will be the natural government' (1945, 2: 313). And nearer the end of the century, Lord Bryce reiterated this forecast (at least for the United States). After reviewing both the 'centrifugal' and 'centripetal' forces at work in American government, Bryce concluded that while the centrifugal forces were 'likely, as far as we can see, to prove transitory . . . the centripetal forces are permanent and secular forces, working from age to age' (1901, 2: 844). Bryce then proceeded to forecast that 'the importance of the States will decline as the majesty and authority of the National government increase' (1901, 2: 844). Later, Edward McWhinney (1965) went on to generalize all this to what he calls 'Bryce's Law,' the proposition that '. . . federalism is simply a transitory step on the way to governmental unity' (p. 105).

But such forecasts have not been borne out. The second half of the twentieth century has seen the extent of centralization in most of the industrialized countries reach some sort of peak with a modest swing back in the direction of devolution of public sector activity. There are, as Bryce suggests, important forces working in both directions, and one can expect the net effect to move in different ways as nations evolve over time. What does seem to be taking place is a growing complexity and specialization in the vertical structure of the public sector. Recent decades have seen the creation of special districts to provide particular public services and the formation of metropolitan area governments to bring centre cities and their suburbs into a single jurisdiction (again for purposes of addressing specific needs such as transportation and housing). It is especially striking to witness in the European Union the moves toward devolution in many member countries, while, at the same time, it develops a set of supranational institutions for governance and economic management. Other countries, like South Africa and the former socialist states, are struggling with their own sets of pressing issues in their attempts to find effective mechanisms for political and fiscal decentralization. While the existing literature in fiscal federalism can provide some general guidance on

these issues, my sense is that most of us working in the field feel more than a little uneasy when proffering advice on many of the decisions that must be made on vertical fiscal and political structures. We have much to learn!

Notes

- 1 This chapter first appeared in *Journal of Economic Literature*, 37, 1120–49. We are grateful to *JEL* for its agreement to this paper being reprinted in this volume.
- 2 This economic use of the term ‘federalism’ is somewhat different from its standard use in political science, where it refers to a political system with a constitution that guarantees some range of autonomy and power to both central and decentralized levels of government. For an economist, nearly all public sectors are more or less federal in the sense of having different levels of government that provide public services and have some scope for *de facto* decision-making authority (irrespective of the formal constitution). In retrospect, it seems to me that the choice of the term ‘fiscal federalism’ was probably an unfortunate one, since it suggests a narrow concern with budgetary matters. The subject of fiscal federalism, as I suggest above, encompasses much more, namely the whole range of issues relating to the vertical structure of the public sector.
- 3 It is straightforward to show that a system of decentralized poor relief is characterized by a garden-variety externality that results in sub-optimal levels of support for the poor. More specifically, increases in support payments in one jurisdiction confer external benefits in the form of a reduced number of poor households elsewhere. On this, see Charles Brown and Oates (1987). There is, moreover, evidence for the United States that state-level decisions on levels of welfare support are interdependent; Luz Amparo Saavedra (1998), among others, finds that states have responded to decreases (increases) in benefit levels in other states by reducing (raising) their own benefits to welfare recipients. For an excellent survey of this whole issue, see Jan Brueckner (1998b).
- 4 However, Martin Feldstein and Marian Vaillant Wrobel (1998) present some recent evidence suggesting that state government attempts to redistribute income are largely unsuccessful. They find that progressive state income taxes in the United States have had little impact on the net-of-tax relative wage rates of skilled versus non-skilled workers. Their claim is that the mobility of workers across state borders undoes efforts at redistribution and does so very quickly. The result is no redistribution, only deadweight losses from inefficient locational decisions.
- 5 For two useful treatments of the assignment of specific public services to the appropriate level of government, see Anwar Shah (1994, chapter 1) and Ronald McKinnon and Thomas Nechyba (1997).
- 6 In Europe, proponents of fiscal decentralization refer to the ‘principle of subsidiarity’. The precept here is that public policy and its implementation should be assigned to the lowest level of government with the capacity to achieve the objectives. This principle has been formally adopted as part of the Maastricht Treaty for European Union. Its intellectual roots, interestingly, are found in twentieth-century Catholic social philosophy. On this see Robert Inman and Daniel Rubinfeld (forthcoming).
- 7 In tax analysis, we are accustomed to a quite different result: the deadweight loss varies directly with the price elasticity of demand. Here it is just the reverse, since the distortion takes place on the quantity, rather than the price, axis. But interestingly, if the source of the difference in efficient local outputs is cost differentials, then the gains from fiscal decentralization bear the opposite relationship to the case where their source is differences in levels of demand: these gains then vary directly with the price elasticity of demand (Oates, 1998).

- 8 For surveys of this econometric literature, see Rubinfeld (1987) and Oates (1996a). For an attempt to actually measure the welfare gains from decentralization, see David Bradford and Oates (1974); they find large gains.
- 9 Another interesting case is the setting of federal standards for safe drinking water. After mandating a set of standards for the quality of drinking water to be met in all jurisdictions in the Safe Drinking Water Act of 1974, the federal government has backed off and now allows a range of exceptions in recognition of the large inter-jurisdictional differences in per-capita costs of meeting the standards (US Congressional Budget Office, 1997).
- 10 In certain settings, mobility can itself be a source of distorted outcomes. See, for example, the seminal paper by Frank Flatters, Vernon Henderson, and Peter Mieszkowski (1974).
- 11 There is a lively and important debate in the local finance literature over whether or not local property taxation, as employed in the United States, constitutes benefit taxation. Bruce Hamilton (1975, 1976) and William Fischel (1992) make the case that local property taxes combined with local zoning ordinances produce what is effectively a system of benefit taxation. Peter Mieszkowski and George Zodrow (1989) take the opposite view.
- 12 See Inman and Rubinfeld (1996) for an excellent restatement and extension of the Gordon analysis. David Wildasin (1988) provides a valuable survey of the various implications of factor mobility both for economic efficiency and for the redistributive impact of public policy.
- 13 Resident-based taxes (also called 'destination-based taxes') are levies on factors of production (such as land, labour, and capital) based on the owner's residence and on goods and services based on the residence of the consumer. In contrast, source-based taxes (or 'origin taxes') involve taxing factors where they are employed and goods and services where they are purchased. Under resident-based taxation, governments have much less capacity to export the incidence of their taxes onto economic units elsewhere. Source-based taxes, however, are often easier to administer and, in certain forms, tend to be more commonly used by state and local governments.
- 14 Matching grants (possibly negative) can, in principle, also serve to correct some of the distortions associated with the decentralized use of non-benefit taxes (Gordon, 1983).
- 15 Fiscal equalization can also make use of matching grants. If the objective of the equalization programme is to equalize taxable capacity, the granting government may choose to supplement the revenue base of fiscally poorer jurisdictions by matching any revenues they collect by some specified percentage. Such a measure has the potential of allowing jurisdictions to raise the same tax revenues per-capita for a given tax rate (irrespective of the actual size of their tax base). This form of fiscal equalization is sometimes called 'power equalization' and has received some attention in the United States for state programmes to achieve various equity goals – most notably in the area of school finance (e.g., Feldstein 1975; Nechyba 1996).
- 16 The issue here is that from the perspective of redistributing income from rich to poor, equalizing intergovernmental grants are bound to have some perverse effects. For such grants, although transferring income from wealthy to poor on average, will inevitably result in some income transfers from poor individuals who reside in wealthy jurisdictions to rich persons in generally poor areas. In this sense, such equalizing measures are not as effective as programmes that redistribute income from rich to poor individuals. But a society may well wish, for other reasons, to provide additional support for the provision of local public services (such as schools) in relatively low-income areas (e.g., Inman and Rubinfeld, 1979).
- 17 As Boadway and Flatters (1982) have shown, equalizing grants may be required to

offset distorting locational incentives where some jurisdictions offer pecuniary fiscal advantages to potential residents resulting, for example, from large, taxable natural resource endowments.

- 18 This argument has even more force where, as in some developing countries and emerging democracies, provincial and local governments simply lack the capacity for effective tax administration. In this setting, central transfers and/or the piggybacking of supplementary rates on top of centrally administered taxes may be the only realistic options. See, for example, Inman (forthcoming).
- 19 As Inman and Rubinfeld (1996) point out, the prescriptive theory of grants presumes a central planner or political process that 'will select socially preferred policies' (p. 325). However, the public-choice literature makes clear the potential of central government political mechanisms to make inefficient choices concerning policies that affect various groups differently. In addition, a grant-distributing agency may have its own objectives; for an excellent study of how such objectives can influence the pattern of grants, see Chernick (1979).
- 20 For surveys and interpretations of this literature, see Gramlich (1977), Ronald Fisher (1982) and Oates (1994).
- 21 For an excellent and recent review of this whole debate in a historical context, see Therese McGuire (1997). Rebecca Blank (1997) provides a concise and insightful treatment of the new welfare legislation and its potential implications.
- 22 For a concurring view, see Craig Volden (1997).
- 23 The Rose-Ackerman and Strumpf analyses, incidentally, also produce a number of subtle and more surprising results. Strumpf finds, for example, that a state with a higher expected return from experimentation can have a lower propensity to experiment.
- 24 Competition may also take place between different levels of government. On such 'vertical competition' (as well as horizontal competition) see Albert Breton (1998).
- 25 There is, incidentally, a very extensive, interesting, and lively debate on this matter among legal scholars. Recent issues of the law journals are full of papers on inter-jurisdictional competition and its consequences. See, for example, Richard Revesz (1992) and Daniel Esty (1996).
- 26 I should emphasize here that all public outputs (including environmental quality) are entirely local in these models; there are no spillover effects into other jurisdictions. The analysis, incidentally, extends not only to fiscal instruments, but regulatory ones as well (such as environmental standards). The analysis of 'regulatory federalism' is, in principle, analogous to that of fiscal federalism. The same general principles concerning decentralization apply to fiscal and regulatory instruments.
- 27 See John Wilson (1996) for an excellent survey of this literature.
- 28 However, as Martin McGuire and Mancur Olson (1996) have shown, even a self-aggrandizing autocrat (if secure) has powerful incentives for supporting an economically efficient system.
- 29 James Poterba and Kim Rueben (1997), for example, have found that those states with tighter anti-deficit rules, and more restrictive limitations on the authority of the state legislature to issue debt, pay lower rates of interest on their bonds.
- 30 McKinnon (1997b) has gone on to argue that much of the impetus for European Monetary Union has as its source a collectively imposed budgetary retrenchment. His interesting argument is that European decision-makers, realizing that they cannot achieve fiscal stability with continued access to monetary powers, are seeking through EMU to create the hard budget constraints that are the prerequisite for responsible fiscal management.
- 31 This is subject to the qualification that matching grants may be needed to internalize inter-jurisdictional spillover benefits.
- 32 In a more formal treatment of this matter, Dennis Epple and Allan Zelenitz (1981)

- have shown that while competition among jurisdictions can constrain government rent-seeking behaviour, it cannot altogether eliminate it.
- 33 See Wallis and Oates (1998) for a description and analysis of the evolution of American federalism in the twentieth century.
- 34 Some observers, like Remy Prud'homme (1995), argue that the case for fiscal decentralization has been much exaggerated. Prud'homme claims that many of the premises of the fiscal federalism vision are typically not satisfied in the developing-country setting; decentralized government bodies, he argues, are frequently unresponsive to the needs of their constituencies and manifest widespread corruption.
- 35 See Govinda Rao (1998) for an illuminating treatment in the Indian context of the wide range of mechanisms (or 'subterranean transfers' as he calls them) through which central government subsidizes the states.

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2 The political economy of EMU and the EU Stability Pact

Ralph Rotte

Introduction

The problem of fiscal discipline in democracies

A typical problem of democratic political systems is their tendency to spend money on behalf of lobbies and interest groups in exchange for their supporting or at least tolerating the government. As a result, public deficits occur which may have serious economic consequences, for example, by causing higher interest rates and crowding out of investment, increased future tax burdens in order to cover the debt, and a lower scope of public activity due to rising shares of interest payments in the budget. High fiscal deficits, at least if persistent or rising, are thus considered a negative effect of politics in the mainstream economic literature.

There is a vast range of theoretical explanations and empirical studies explaining and demonstrating the democratic tendency toward a lack of fiscal discipline. In his seminal work on the logic of collective action, for example, Olson (1965; 1982) has shown that interest groups establishing distributional coalitions may lead to slow decision-making processes and thus to serious structural opposition against economic reform (Alesina and Drazen, 1991). Interest organization tends to create many special interest groups advocating large excess burdens and leads to a variety of cartels and inflexible institutions, hampering economic growth and deteriorating economic performance (Olson, 1984; 1995). Consequently, governments slowly lose their ability to finance lobbyist fiscal programmes while reductions of the programmes are prevented by crowded bargaining agendas of a multiplicity of interest groups.

In addition, public choice theory (e.g. Buchanan *et al.*, 1980; Tollison, 1982) has explained how rent-seeking behaviour leads to an increase of public deficits since politicians act as agents for interest groups aiming at receiving rents by monopolies created by legislation or by deficit-financed programmes. This is especially relevant in weak coalitions, governments depending on the consensus of the participating parties which each represent a special array of interest groups (Roubini and Sachs, 1989; Alesina and Tabellini, 1990). As elections provide the only potential constraint for politicians, it is important that voters do not recognize the inter-temporal burdens resulting from such

policies (e.g. Alesina and Perotti, 1995). According to the political business cycle approach, ignorant voters may vote for an incumbent government if public spending is increased before the election (e.g. Alesina, Cohen and Roubini, 1993).

Four options of securing fiscal restraint

So how may the problem of persistent deficits in democracies be solved in order to provide a stable fiscal framework for economic activity? Basically, one may distinguish four approaches. First, political behaviour may change due to a widespread conviction among decision-makers and voters that fiscal discipline is important and has to be maintained despite the pressure of lobbies. This is the approach that the United States has seemed to follow since about the end of the Cold War. Obviously the main weakness of such an approach to fiscal stabilization is its dependence on ideological factors which are not irrevocable. The inter-temporal stability of a commitment to fiscal stability based solely on convictions of the political majority is therefore somewhat doubtful since majorities and governments as well as ideological fashions may change in time.

Thus, a second approach tries to strengthen the commitment by conviction by codifying it in national law. Ordinary laws or even constitutional rules not only create a formal responsibility of the government to meet more or less balanced budget targets. They are also relatively hard to change since they require formal legislative procedures and possibly especially high majorities (in the case of constitutional change). Nevertheless, as experiences with, for example, the US Gramm-Rudman-Hollings Law of 1985–87 or art. 115 of the German Basic Law have shown (Niskanen, 1990; Bach, 1993; Eichengreen and Bayoumi, 1994; Gramlich, 1995), there are two important shortcomings of this method. First, even those rules are obviously not unchangeable, and at least ordinary laws may in principle be reversed by simple majority-voting, which may again depend on possible changes of convictions. Second, and more importantly, interpretation and actual enforcement of legal rules, especially constitutional articles, are subject to dynamic processes and may change in time even if the rules remain formally unchanged.

A third way to enforce fiscal discipline is therefore to deprive national authorities of their power to make the rules of their own behaviour. International agencies, like the International Monetary Fund or the World Bank, may tie their economic help for countries to governmental commitments to fiscal stability and reform, and enforce those commitments by threatening to withdraw credits or other forms of support (Frey and Eichenberger, 1994; Rodrik, 1996). However, while this principle of external coercion may work in the case of politically and economically weak regimes with badly organized interest groups, for example, in relatively powerless countries of the developing world, it is very unlikely to be accepted by stronger sovereign states. It seems therefore inapplicable to the problem of fiscal restraint in industrialized

countries like the United States or in Western Europe where lobbies and interest groups are well organized on the national level.

Moreover, the European Union which, as a supranational organization, might seem the right institution to create some external pressure on national fiscal policies in the case of its member states, is not a more or less independent body like the International Monetary Fund. Here, national governments, through their representation in the Council, can actually influence EU rules, and economic coercion from outside is ruled out by their well-established economic positions as well as by national veto power on crucial issues. Nevertheless, the European Union provides a unique example for a fourth option to introduce and maintain fiscal discipline: international commitment among equals, where common rules establish a kind of division of labour between a collective international organization and national governments (Vaubel, 1986). This is the principle of a linkage approach on which we will focus for the rest of this chapter.

Linking domestic politics and international commitment

The domestic–foreign affairs nexus

When it comes to the linkage of domestic and foreign policy, international relations scholars or international political economists often model two-level games of diplomacy and domestic politics. Following Putnam's (1988) seminal paper, these models generally interpret foreign policy actors as being constrained by the necessity to convince the domestic audiences of their moves abroad and to win support for the ratification of international agreements and obligations (e.g. Schoppa, 1993; Mo, 1994; Sakamoto, 1994). In other words, this approach implies a domestic–foreign policy nexus which is based on a certain primacy of foreign policy *vis-à-vis* domestic issues, with domestic feedback being an inconvenient though unavoidable restriction of government activity.

International commitment, however, is also a well-known way for governments to divert national public opinion from domestic problems (e.g. Smith, 1996). As theoretical and empirical work in the literature has shown, democratic governments tend to pursue a more risky foreign policy when facing potential failure in upcoming elections. In order to stay in power, governments might even wage diversionary wars causing some national rally-round-the-flag effect which in general favours the incumbent leaders of a country (e.g. Levy, 1992; Hess and Orphanides, 1995). One way to cope with economic difficulties at home, such as rising unemployment or lagging growth, is thus to increase activity abroad.

Contrary to the former approach, this political economy perspective of foreign affairs assumes domestic issues as main interests of national leaders aiming at retention of their powers and positions. Apart from more or less 'wag the dog'-style operations, however, there is a second possibility of using

foreign affairs as a quasi-instrument of domestic politics in situations unfavourable for the government. It may hint at international constraints on national policy and thus ascribe responsibility for its problems with, for example, the economy, to some foreign externality or international institution as mentioned above. Obviously, creating such foreign externalities by international agreements or using existing commitments can then be a valuable instrument for ruling élites to overcome the domestic stalemate based on distributive alliances and interest group lobbying preventing economic reform. When confronted with the public outrage caused by the implementation of austerity measures, a government may then bypass domestic criticism and avoid some of its negative consequences at the ballot box by emphasizing the legally and morally binding obligations within the country's international partnerships and alliances.

This mechanism may work because of the particularities of foreign policy. The average voter's knowledge about international affairs may be considered very limited, and a nation's international ties and reputation belong to the highest valued political assets for most political parties and the electorate. Therefore internationalization of domestic problems may provide an opportunity to implement unpopular but seemingly necessary measures while at the same time presenting a scapegoat other than the government itself from being blamed.

The principle of delegation in European integration

The scapegoat effect of international commitment has long been at the core of the political economy view of European integration (Martin, 1994). Vaubel (1986) discusses several examples where the European Community has established some expertise in doing the 'dirty work' for national governments, for example, subsidization of agriculture, protectionism, or control and enforcement of industrial cartels. By transferring competences to the European Community/European Union national governments have thus been able to circumvent domestic resistance which might have had negative consequences for their popularity.

Moreover, Olson (1982) or Crafts and Toniolo (1995), for example, have shown that the transfer of regulative authority to European institutions (in which national governments have still the biggest influence on decisions) was a major element of economic growth in Europe after 1945. Europeanizing decision-making broke the grip of national redistributive coalitions that had developed in the member countries. According to Peirce (1991), the 1992 Common Market programme has had the same effect.

Following this point of view, the fiscal criteria of EMU have built on a rather well-established mechanism which serves to overcome Olson's logic of collective action in the field of economic reform. This is especially relevant in the case of the fiscal deficit rules which limit deficit spending as a main instrument of meeting the wishes of political interest groups and lobbies.

The political economy of EMU

The basic idea of the political economy of EMU, as far as the overall commitment to fiscal discipline is concerned, is thus a special mechanism which allows national governments to follow a policy of fiscal reform and austerity by shifting off responsibility to the European Union. This mechanism is based on two central elements: an international agreement or treaty among the member states (governments) that has been adopted by the national parliaments, and a special attitude of the public, i.e. the voters, *vis-à-vis* international or, for that matter, supranational affairs.

Parliamentary acceptance of a treaty imposing serious restrictions on national monetary and fiscal policy, like the Maastricht Treaty on European Union of 1991, may be explained easily by political motives other than purely economic ones: the aim of depriving the Bundesbank of its power in European monetary policy; of keeping reunited Germany in the dense framework of cooperative European networks; of progressing on the way toward a stronger, united Europe capable to take its stand in global affairs, for example, against the United States, Japan or China, and so on. Apart from a generally positive attitude of political élites toward restrictive fiscal policy, the whole range of typical considerations in international affairs, from national status in a globalized world to basic interests of security and power is relevant in this respect (Garrett, 1994). Of course, the political and economic influence of crucial countries in the Union, like Germany or France, also played a role in concluding the Maastricht Treaty, leading to some special weight of national economic ideologies (like the traditional German longing for low inflation) and forcing the partner countries to accept relatively strong commitments like the supplementary Stability and Growth Pact of 1996 in order to secure the overall project of EMU.

Given that there have been some sensible reasons for national governments and parliaments to agree to the Maastricht Treaty creating EMU and a self-commitment to fiscal stability, there remains the question of why the electorate should accept it with its economic implications and restrictive consequences on fiscal and social policy. Why should a national government that has taken part in the international decision-making process of an EU treaty (which needs unanimity to be concluded) be able to attribute the negative consequences of the agreement mainly to the collective international, seemingly anonymous body of the Union? A standard argument given in the literature is the voters' ignorance of international affairs and a lack of information about the actual political structures of the European Union (e.g. Vaubel, 1994b). Nevertheless, given the intense public discussion about the Maastricht Treaty in the early 1990s, it seems too simple to count on a simple deception effect on public opinion by introducing a Maastricht scapegoat for restrictive fiscal policy into national politics.

Therefore another explanation for the different perception of purely national and internationally backed economic policy takes account of the fundamental

public support of European integration. Empirical findings by Gabel and Palmer (1995) have shown that support for the European Union depends on the political aim of international stability and national security rather than on economic performance. According to Anderson and Kaltenthaler (1996), economic well-being is less important for supporting the Union than the duration of a country's membership. Even Vaubel (1994a) concludes that there is some process of gradual acceptance of membership in the Union, independent of the actual economic situation.

Following Rotte (1998) and Rotte and Zimmermann (1998), one may therefore explain the dampening effect of Europeanizing restrictive policy measures on domestic resistance by the electorate's fundamentally positive attitude toward European integration. Since support for the European Union depends on a variety of factors, among which economic ones may not be the most important, the economic costs of a European project may be accepted easier than those of a national one. Consequently, transferring the political cause for fiscal restraint from national governments to the Union by defining EU rules for public deficits results in a discount of the political costs governments have to face at home, provided that the basic political attitude of the public *vis-à-vis* the European Union is sufficiently positive. The Danish referendum on the euro of 2000 indirectly supports this argument: The Danes refused to join the EMU not because of economic aspects but rather because of some fundamental scepticism concerning political unification (Schumacher and Schymik, 2000).

Finally, there is another specialty of this way of securing commitments to national fiscal discipline by international agreement. Since an international treaty not only requires unanimity to be concluded but to be changed as well, collective commitments like the Maastricht Treaty also bind subsequent national governments. The principle of unanimity basically means that every participant in the agreement can be sure that their partners will keep to the principle since they are not able to redefine it without their consent (Buchanan and Tullock, 1962). Thus, despite changes in governments, like in France, Great Britain or Germany in the late 1990s, the overall commitment remains untouched, and international institutional ties contribute to its persistent credibility, even if its fulfillment becomes more difficult than expected (North, 1993).

The institutional framework of EMU and the EU Stability Pact

The Maastricht provisions for EMU

Eichengreen (1994; 1998) provides an overview of the institutional rules for EMU given by the Maastricht Treaty of 1991. The criteria for joining EMU and the rules applicable within monetary union are laid down in articles 99 to 124 of the Treaty on the European Community (TEC) in its consolidated version of 1997 (after the Maastricht and Amsterdam summits). The central norm for fiscal policy is art. 121 in connection with art. 104 TEC and art. 2 of the

Protocol on the Convergence Criteria (PCC), which rules that the budget deficit of a country willing to join EMU must not exceed 3 per cent of the nominal GDP in the year before the decision on qualification, and has to remain permanently on such a level. Additional requirements of EMU membership concern low inflation, stable European Exchange Rate Mechanism (EERM) membership, and convergence of long-term interest rates in EERM (art. 121 TEC).

In order to provide sufficient incentives even for countries which might fail the exact meeting of the deficit criterion, the Maastricht Treaty includes some flexibility. Decisions about EMU membership are taken by the EU Council with a qualified majority, i.e. not unanimously, and may also take into account the previous efforts of a country to reduce public deficits as well as extraordinary economic circumstances preventing further decreases. Moreover, contrary to the inflation and interest rate targets, the decision about meeting the deficit criterion requires an additional decision-making process according to art. 104 TEC. Based on a report and recommendation by the generally pro-integration EU Commission, the Council decides (again with a qualified majority) whether a country has an excessive public deficit. European Union states not meeting the deficit criterion thus gain some additional bargaining opportunities within the Commission as well as in the Council. For, according to art. 2 PCC, the deficit criterion of art. 121 TEC has to be considered as met if there has been no approval of an excessive deficit.

Concerning the fiscal deficit criterion of EMU membership the Maastricht procedures have thus given most countries a credible chance to join in due time, which is a prerequisite for domestic reliability of the Europeanization argument for fiscal restraint. The lack of any veto power by single member countries (like Germany) and the actual formal flexibility of the 3 per cent benchmark may help governments to implement austerity measures by hinting at the institutionalized hope for convincing the other EU countries that one's own fiscal policy matches the standards of the collective economic policy.

The Stability and Growth Pact

The provisions of the Maastricht Treaty for joining EMU were of course especially relevant in 1997–98 when monetary union was actually established. One has to note, however, that according to art. 104 TEC, not only member countries of EMU but all EU countries have committed themselves to fiscal stability according to the Maastricht criterion. In order to secure actual compliance with this self-commitment and also political acceptance of EMU in the German public, a collective budget surveillance system was established in 1996–97, which became effective in 1999. Since collective warrancy of national debts and government borrowing from the European Central Bank are precluded by art. 103 and art. 101 TEC respectively, the main economic aim of the Stability and Growth Pact (SGP) is to avoid collective burdens via rising interest rates caused by national deficit spending.

Formally, the SGP consists of the relevant decision of the European Council

(1997) of Amsterdam of 1996 and two additional ordinances by the EU Council on budget surveillance and procedures in case of an excessive deficit of 1997 (Council of the European Union, 1997a; 1997b). The collective surveillance mechanism of SGP is based on three elements: the medium-term early warning system, the short-term observation of national budget programmes, and the excessive budget procedure.

The early warning system consists basically of the compulsory presentation of annual stability programmes by the EMU member countries and of convergence programmes by the other EU countries. These official programmes are addressed to the Council of EU finance ministers (ECOFIN), the EU Economic and Financial Committee (EFC) with two representatives from each member state, the Commission and the ECB (art. 114 TEC), and the European Commission. They contain the states' medium-term budget plans, which have to aim at a balanced budget or even budget surpluses. The reports have to provide the basic assumptions of budgetary planning as well as the relevant measures of fiscal and economic policy. Moreover, the sensitivity of the plan *vis-à-vis* changes in the assumptions have to be explained. The period to be covered by the reports is five years, starting with the previous one. Supported by the ECB, the Commission and the EFC compile a comment on the programmes and present it to ECOFIN. The Council then decides within two months if the medium-term budget aims contain an adequate margin of security to prevent an excessive deficit of 3 per cent of GDP, if the plan's assumptions are realistic and if the planned measures provide for a stable budgetary development. If this is not the case, the country has to revise its planning and report. Potential deviations from fiscal stability and discipline are thus to be recognized and tackled early.

Short-term surveillance is provided by semi-annual reports of current national budget data (on 1 March and on 1 September). The Commission and the EFC examine separately if there is an excessive budget deficit. This is the case if at least one of two criteria is met: the budget deficit is higher than 3 per cent of GDP, or the debt ratio is higher than 60 per cent of GDP or is not approaching this point of reference with adequate speed. If an excessive deficit has been identified or if it is expected, the procedure for an excessive deficit according to art. 104 TEC is initiated.

In this procedure, the Commission and the EFC first present their considerations to ECOFIN which decides with a qualified majority of votes if there is in fact an excessive deficit or not. It is crucial for this decision if there are any exceptional circumstances justifying a higher deficit. Such exceptions are natural disasters, a solely temporary character of the deficit, or a recession. A recession is operationalized by a reduction of GDP within a year. A reduction of less than 0.75 per cent is defined as not exceptional, if it is higher than 2 per cent it is generally accepted as such. Between these two reference values the Council decides, considering the position of the afflicted country as well as the suddenness and the cumulative effect of the shock, which are also part of the Commission's report.

If the Council concludes that there is in fact an excessive deficit, the instruments of art. 104 (7) to (11) TEC come to bear. The Council first gives some confidential advice to the country, which may be made public after a set deadline. If the country does not follow the Council's proposals, ECOFIN may impose detailed measures in order to reduce the deficit. If the country still does not comply with these directions, the Council may inflict sanctions to enforce the implementation of the consolidation measures. These include the need to give additional information when emitting government bonds, revisions in the lending policies of the European Investment Bank, the obligation to give a deposit bearing no interest to the Union, and the imposition of fines. The period between the provision of the budgetary data and the decision on potential sanctions is only ten months.

The first deposit consists of a fixed part of 0.2 per cent of GDP and a variable part of a tenth of the difference between the actual deficit quota of the previous year and 3 per cent. If Britain and Germany had both had a deficit of 3.5 per cent in 1999, then their hypothetical deposits would have been about euro $1.3 \text{ trillion} \times 0.01 \times (0.2 + 0.1 \times 0.5) = \text{euro } 3.25 \text{ billion}$ and euro $1.9 \text{ trillion} \times 0.01 \times 0.25 = \text{euro } 4.75 \text{ billion}$, respectively. This shows that potential sanctions are not neglectable. Additional deposits in subsequent years are restricted to the flexible part. If fiscal policy is not corrected according to the directions given by the Council the deposit is changed to a fine which is not refunded after lifting the sanctions by ECOFIN. Due to their formal reservations to the Maastricht Treaty, this mechanism of sanctions will apply to the United Kingdom and Denmark only after their having joined EMU.

Potential problems of credibility

Under certain assumptions, governments have strong incentives to commit themselves and to stick to the stability pact if they are already members of EMU (Artis and Winkler, 1998; Beetsma and Uhlig, 1999). Nevertheless, there still remain some potential problems concerning the actual credibility of the commitment to fiscal discipline as laid down in TEC and SGP. One issue is the possibility to manipulate the indicators relevant for joining EMU by short-term policy measures. Concerning the membership of Greece, for example, which was agreed upon in 2000, there has been some criticism about the Greek government lowering indirect taxes temporarily in order to meet the Maastricht inflation criterion, as well as doubts about the persistence of fiscal restraint, given that Greece receives massive transfers of about 3 to 4 per cent of its GDP from the Union (DIW, 2000; Papaschinopoulou, 2000). Nevertheless, Greece is an excellent example for the political economy mechanism of EMU, since, without a doubt, it has made some vast progress in reforming its public finances for several years, and the hardships of this way were buffered by the prospect to be part of a more closely integrated Europe (DIW, 2000; Herz and Kotios, 2000).

The problem of persistence of fiscal discipline after having reached the goal

of EMU is of course at the heart of SGP. As far as institutions and sanction mechanisms are concerned the provisions for long-term fiscal restraint seem as well established as possible within an international regime. The international character of the commitment, however, does not solve one fundamental problem of every form of self-restraint once and for all. It is still the potential breakers of the rules, i.e. the national states, that decide about their own deeds in the Council (Lowe, 1999). Therefore there remains some tinge with the SGP mechanisms.

On the other hand, there are three additional elements of warranty in the present TEC and SGP regimes. First, it is institutions independent of the governments, i.e. the Commission and the ECB, that play an important role in observing national policies and preparing the foundations of Council decisions on excessive deficits. Since the Commission typically is not only pro-integrationist but also interested in maintaining the internal stability of integration, it is less likely that it will be prepared to bargain about the deficit issue once a country has actually joined EMU. Moreover, the ECB has already established some reputation of reliable orientation towards monetary stability which includes a critical attitude *vis-à-vis* national fiscal policies. Second, the Maastricht process seems to have caused, or at least supported, the establishment of some kind of culture of stability to which even socialist governments, which are said to tend to deficit spending, adhere. At least this is the impression one gains from looking at the incumbent British, French and German governments. Third, even if the governments again wanted to change their points of view, their actual space to manoeuvre is limited since, in the process of negotiating EMU and especially SGP, most aspects were codified and can basically be changed only unanimously. Although there is still room for interpretation, the key elements of fiscal discipline have been laid down in detailed agreements. Observing compliance with those agreements is also a task of the Commission which may ultimately rely on the European Court to rule on the Council's policies if necessary.

Empirical evidence for the politico-economic mechanism

The Maastricht effect on fiscal policies since 1992

Contrary to more sceptical views on the Maastricht criteria and the SGP, the process toward EMU has been a success so far, at least as far as the goal of fiscal restraint is concerned. The overall improvement of fiscal discipline in the European Union since the beginning of the 1990s is obvious. The year 1993 has been the high watermark in overall fiscal deficits for seven EU countries as well as for the total Union and the group of EMU member states. Since 1996, all EU countries except for Italy and Austria have been decreasing their deficits, and since 1998 no country has run deficits exceeding the 3 per cent benchmark of the Maastricht Treaty (Table 2.1). A look at primary deficits provides an even more impressive look (Table 2.2). While Belgium, Ireland,

Table 2.1 General government budget balances in the EU (net surplus (+) or net deficit (-) in % of GDP)

| | 1980 | 1985 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 ¹ | 1996 | 1997 | 1998 | 1999 | 2000 ² | 2001 ² |
|-------------------|-------|-------|-------|-------|-------------------|-------|-------|------|-------------------|------|------|------|------|-------------------|-------------------|
| Belgium | -8.6 | -9.0 | -6.1 | -5.4 | -6.2 | -6.9 | -7.2 | -4.8 | -4.2 | -3.7 | -2.0 | -1.0 | -0.9 | -0.5 | -0.2 |
| Germany | -2.9 | -1.2 | 0.1 | -2.1 | -3.2 ³ | -2.8 | -3.5 | -2.6 | -3.3 | -3.4 | -2.6 | -1.7 | -1.1 | -1.0 | -1.4 |
| Spain | -2.5 | -6.1 | -3.5 | -4.1 | -4.3 | -4.0 | -6.7 | -6.1 | -7.0 | -5.0 | -3.2 | -2.6 | -1.1 | -0.7 | -0.4 |
| France | 0.0 | -2.8 | -1.5 | -2.0 | -2.0 | -3.9 | -5.6 | -5.7 | -5.6 | -4.2 | -3.0 | -2.7 | -1.8 | -1.6 | -1.2 |
| Ireland | -11.6 | -10.2 | -1.7 | -2.2 | -2.3 | -2.4 | -2.3 | -1.6 | -2.5 | -0.6 | 0.8 | 2.1 | 2.0 | 1.7 | 2.7 |
| Italy | -8.6 | -12.5 | -9.8 | -11.0 | -10.0 | -9.5 | -9.4 | -9.1 | -7.6 | -7.1 | -2.7 | -2.8 | -1.9 | -1.5 | -0.8 |
| The Netherlands | -4.1 | -3.5 | -4.6 | -4.9 | -2.8 | -3.8 | -3.1 | -3.6 | -4.2 | -1.8 | -1.2 | -0.8 | 0.5 | 1.0 | 0.4 |
| Austria | -1.6 | -2.4 | -2.7 | -2.4 | -3.0 | -1.9 | -4.2 | -4.9 | -5.1 | -3.8 | -1.9 | -2.5 | -2.0 | -1.8 | -2.0 |
| Portugal | -8.6 | -10.3 | -2.3 | -5.0 | -5.9 | -2.9 | -6.0 | -5.9 | -4.2 | -3.8 | -2.6 | -2.1 | -2.0 | -1.5 | -1.5 |
| Finland | 3.3 | 2.9 | 6.2 | 5.3 | -1.5 | -5.7 | -7.9 | -6.1 | -3.7 | -3.2 | -1.5 | 1.3 | 2.3 | 4.1 | 5.1 |
| EU1 ⁴ | -3.4 | -4.8 | -3.1 | -4.2 | -4.5 | -4.7 | -5.5 | -5.0 | -5.0 | -4.3 | -2.6 | -2.1 | -1.2 | -0.9 | -0.8 |
| Denmark | -3.2 | -2.0 | 0.3 | -1.0 | -2.4 | -2.2 | -2.8 | -2.6 | -2.3 | -1.0 | 0.5 | 1.2 | 3.0 | 2.5 | 2.5 |
| Greece | -2.6 | -11.6 | -14.2 | -15.9 | -11.4 | -12.6 | -13.6 | -9.9 | -10.2 | -7.8 | -4.6 | -3.1 | -1.6 | -1.3 | -0.6 |
| Sweden | -3.9 | -3.7 | 5.2 | 4.1 | -1.1 | -7.5 | -11.9 | -9.9 | -7.9 | -3.4 | -2.0 | 1.9 | 1.9 | 2.4 | 2.9 |
| United Kingdom | -3.4 | -2.9 | 1.0 | -0.9 | -2.3 | -6.1 | -7.8 | -6.7 | -5.8 | -4.4 | -2.0 | 0.3 | 1.2 | 0.9 | 0.7 |
| EU15 ⁴ | -3.4 | -4.5 | -2.2 | -3.5 | -4.1 | -5.0 | -6.0 | -5.4 | -5.2 | -4.2 | -2.5 | -1.5 | -0.6 | -0.4 | -0.3 |

Source: European Commission (2000b).

Notes

1 From 1995: ESA 95 definitions (on average resulting in 0.2% higher deficits than calculations with former definitions).

2 Estimation.

2 From 1991: including the former GDR.

4 Excluding Luxembourg.

Table 2.2 General government budget balances in the EU, excluding interest (net primary surplus (+) or net primary deficit (-) in % of GDP)

| | 1980 | 1985 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 ¹ | 1996 | 1997 | 1998 | 1999 | 2000 ² | 2001 ² |
|-------------------|------|------|------|------|-------------------|------|------|------|-------------------|------|------|------|------|-------------------|-------------------|
| Belgium | -2.7 | 1.4 | 4.0 | 5.0 | 3.8 | 3.7 | 3.5 | 5.2 | 4.9 | 5.0 | 5.9 | 6.6 | 6.3 | 6.4 | 6.4 |
| Germany | -1.0 | 1.9 | 2.8 | 0.6 | -0.6 ³ | 0.4 | -0.2 | 0.7 | 0.4 | 0.3 | 1.0 | 1.9 | 2.5 | 2.5 | 2.0 |
| Spain | -1.8 | -4.2 | 0.4 | -0.3 | -0.6 | 0.3 | -1.7 | -1.4 | -1.7 | 0.4 | 1.6 | 1.8 | 2.5 | 2.8 | 2.9 |
| France | 1.4 | 0.0 | 1.5 | 1.4 | 0.9 | -0.7 | -2.3 | -2.2 | -1.8 | -0.2 | 0.7 | 0.9 | 1.6 | 1.6 | 2.0 |
| Ireland | -5.6 | -0.9 | 5.7 | 5.3 | 5.0 | 4.3 | 4.0 | 4.1 | 3.1 | 4.1 | 5.1 | 5.6 | 4.6 | 3.9 | 4.7 |
| Italy | -3.2 | -4.5 | -1.1 | -1.6 | 0.1 | 1.9 | 2.6 | 1.8 | 3.9 | 4.4 | 6.7 | 5.3 | 4.9 | 4.9 | 5.3 |
| The Netherlands | -0.4 | 2.6 | 1.2 | 0.8 | 3.1 | 2.3 | 2.9 | 2.0 | 1.7 | 3.8 | 3.9 | 4.1 | 5.0 | 5.1 | 4.1 |
| Austria | 0.8 | 1.0 | 1.2 | 1.6 | 1.2 | 2.2 | 0.1 | -0.9 | -0.7 | 0.4 | 2.0 | 1.3 | 1.6 | 1.8 | 1.5 |
| Portugal | -5.9 | -2.7 | 3.8 | 2.9 | 1.8 | 4.2 | 0.1 | 0.2 | 2.1 | 1.6 | 1.7 | 1.5 | 1.4 | 1.8 | 1.8 |
| Finland | 4.3 | 4.7 | 7.6 | 6.7 | 0.4 | -3.1 | -3.3 | -1.1 | 0.3 | 1.1 | 2.8 | 5.0 | 5.8 | 7.5 | 8.1 |
| EU1 ⁴ | -0.8 | -0.4 | 1.5 | 0.7 | 0.4 | 0.8 | 0.0 | 0.3 | 0.6 | 1.4 | 2.5 | 2.7 | 3.1 | 3.1 | 3.1 |
| Denmark | 0.7 | 7.7 | 7.5 | 6.3 | 4.9 | 4.4 | 4.5 | 4.1 | 4.2 | 5.1 | 6.2 | 6.5 | 7.7 | 6.8 | 6.4 |
| Greece | -0.6 | -6.7 | -6.8 | -5.9 | -2.1 | -1.1 | -1.0 | 4.0 | 1.0 | 2.8 | 3.7 | 4.7 | 5.8 | 5.8 | 5.9 |
| Sweden | 0.1 | 4.4 | 10.4 | 8.9 | 3.9 | -2.3 | -5.9 | -3.4 | -0.8 | 3.7 | 4.8 | 8.0 | 7.4 | 7.1 | 7.0 |
| United Kingdom | 1.3 | 2.1 | 4.7 | 2.2 | 0.4 | -3.4 | -5.0 | -3.6 | -2.1 | -0.7 | 1.7 | 4.0 | 4.1 | 3.9 | 3.5 |
| EU15 ⁴ | -0.4 | 0.3 | 2.4 | 1.2 | 0.6 | 0.1 | -0.8 | -0.2 | 0.3 | 1.3 | 2.5 | 3.1 | 3.5 | 3.5 | 3.4 |

Source: European Commission (2000b).

Notes

- 1 From 1995: ESA 95 definitions.
- 2 Estimation.
- 3 From 1991: including the former GDR.
- 4 Excluding Luxembourg.

Italy and Portugal have been running primary surpluses already since the late 1980s and early 1990s, all other EU countries have achieved positive primary budget balances between 1994 and 1997. Since 1997 there have only been primary surpluses in the Union.

Actual fiscal policy is of course not independent of the business cycle. In general, in times of recession and depression the political pressure to increase deficit spending will be higher than during periods of economic expansion. Therefore, Table 2.3 gives an overview of cyclically adjusted budget balances in the European Union. While the general shift to decreasing budget deficits is more unevenly distributed among the states now, it still holds that since 1998 there have been no more deficits exceeding the Maastricht criterion. Apart from slight increases in deficit spending in several countries in 2000 and 2001, the overall performance of fiscal policy has become remarkably positive if compared to the pre-1991–92 figures. This has a positive impact on the debt situation in the Union. Between 1993–94 and 1996–97 gross debt ratios started to decrease persistently in all EU states except for France and Germany which reached their peaks of debt only in 1998 and 1999, respectively (Table 2.4).

In brief, the decision for EMU, SGP and their institutionalization, has really had a disciplining effect on fiscal policy in Europe so far. Rotte (1998) and Rotte and Zimmermann (1998) have provided some empirical evidence for the underlying politico-economic mechanism based on the Europeanization argument. It is shown that being a Maastricht Treaty member state has had a significantly negative effect on deficits. This effect is not the consequence of a general shift in economic ideology in the OECD countries since 1991. Apart from a structural break in the determinants of fiscal deficits in 1991–92, there is indeed a significant effect of the support for the European Union, especially if one focuses on Union member countries which have neither reserved an opt-out choice for EMU (i.e. excluding Denmark and the United Kingdom) nor have been EU members for a while already (i.e. excluding Austria, Sweden and Finland). In these countries the effect of high unemployment and low growth as typical driving forces of deficit spending on the budget balance have decreased since 1992 or have become insignificant altogether, even if one controls for growth and inflation effects. Empirical results show that, in general, the more popular the European Union is in a country, the less responsive to political pressure the government is with the budget, which perfectly fits the theoretical core of the political economy hypothesis of EMU and SGP.

Government performance under collective surveillance

The first stability and consolidation programmes were presented in late 1998 and 1999. Due to problems in establishing a working government after the last elections, only Austria was late in providing the 2000 programmes. The benchmarks against which the programmes are evaluated are the general directions of economic policy, which are concluded annually by the Council, following

Table 2.3 Cyclically adjusted general government budget balances in the EU (net surplus (+) or net deficit (-) in % of GDP)

| | 1980 | 1985 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 ¹ | 1996 | 1997 | 1998 | 1999 | 2000 ² | 2001 ² | |
|-------------------|-------|-------|-------|-------|-------------------|-------|-------|------|-------------------|------|------|------|------|-------------------|-------------------|------|
| Belgium | -10.5 | -7.5 | -7.3 | -7.0 | -7.7 | -8.2 | -6.1 | -4.3 | -3.8 | -2.5 | -1.6 | -0.7 | -0.3 | -0.5 | -0.6 | |
| Germany | -4.0 | -0.2 | 0.4 | -3.3 | -5.2 ³ | -4.6 | -3.8 | -3.0 | -3.5 | -3.0 | -2.0 | -1.2 | -0.3 | -0.3 | -0.7 | -1.5 |
| Spain | -2.3 | -4.9 | -4.9 | -5.8 | -5.8 | -4.8 | -6.1 | -5.4 | -6.2 | -4.1 | -2.6 | -2.3 | -1.1 | -0.8 | -0.6 | |
| France | -0.4 | -1.8 | -2.3 | -2.9 | -3.0 | -4.7 | -5.2 | -5.3 | -5.1 | -3.3 | -2.1 | -2.1 | -1.3 | -1.6 | -1.4 | |
| Ireland | -12.6 | -10.2 | -1.8 | -3.4 | -2.3 | -1.7 | -0.5 | 0.5 | -1.5 | 0.1 | 0.3 | 1.2 | 0.8 | 0.5 | 2.0 | |
| Italy | -9.6 | -12.0 | -10.7 | -11.9 | -10.7 | -9.8 | -8.6 | -8.5 | -7.6 | -6.8 | -2.5 | -2.5 | -1.4 | -1.3 | -0.9 | |
| The Netherlands | -5.2 | -2.7 | -5.3 | -6.7 | -4.3 | -4.7 | -2.4 | -3.2 | -3.2 | -0.9 | -0.7 | -0.6 | 0.7 | 0.6 | -0.2 | |
| Austria | -2.1 | -1.9 | -2.8 | -2.9 | -3.8 | -2.5 | -4.2 | -5.0 | -5.0 | -3.7 | -1.5 | -2.2 | -1.7 | -1.7 | -2.0 | |
| Portugal | -9.4 | -8.6 | -3.3 | -6.3 | -7.0 | -3.9 | -5.7 | -5.4 | -3.7 | -3.4 | -2.3 | -2.0 | -1.8 | -1.5 | -1.6 | |
| Finland | 3.1 | 2.7 | 0.8 | 0.6 | -1.2 | -2.1 | -2.4 | -1.9 | -0.6 | -0.8 | -1.2 | 0.6 | 1.9 | 3.3 | 4.2 | |
| EU11 ⁴ | -4.2 | -4.0 | -3.8 | -5.5 | -5.8 | -5.7 | -5.1 | -4.8 | -4.6 | -3.7 | -2.0 | -1.7 | -0.7 | -0.9 | -1.0 | |
| Denmark | -5.3 | -6.6 | -2.2 | -2.7 | -3.3 | -1.9 | -0.5 | -2.9 | -2.8 | -1.5 | -0.6 | 0.1 | 2.7 | 2.5 | 2.8 | |
| Greece | -3.6 | -11.4 | -14.8 | -16.1 | -12.1 | -13.1 | -12.9 | -9.2 | -9.5 | -7.0 | -4.1 | -3.0 | -1.6 | -1.7 | -1.3 | |
| Sweden | -3.9 | -3.7 | 2.3 | 1.1 | -2.1 | -6.4 | -7.9 | -8.0 | -7.4 | -2.1 | -0.6 | 2.9 | 2.0 | 1.7 | 1.9 | |
| United Kingdom | -3.0 | -2.3 | -0.9 | -2.1 | -1.9 | -4.8 | -6.6 | -6.4 | -5.6 | -4.2 | -2.3 | 0.2 | 1.4 | 0.7 | 0.3 | |
| EU15 ⁴ | -4.0 | -3.8 | -3.2 | -4.9 | -5.2 | -5.6 | -5.4 | -5.1 | -4.9 | -3.7 | -2.0 | -1.2 | -0.2 | -0.4 | -0.6 | |

Source: European Commission (2000b).

Notes

- 1 From 1995; ESA 95 definitions.
- 2 Estimation.
- 3 From 1991; including the former GDR.
- 4 Excluding Luxembourg.

Table 2.4 General government consolidated gross debt in the EU (% of GDP)

| | 1980 | 1985 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 ¹ | 1996 | 1997 | 1998 | 1999 | 2000 ² | 2001 ² |
|-------------------|------|-------|-------|-------|-------------------|-------|-------|-------|-------------------|-------|-------|-------|-------|-------------------|-------------------|
| Belgium | 76.6 | 119.3 | 124.4 | 124.7 | 126.5 | 127.9 | 134.6 | 132.7 | 129.8 | 128.3 | 123.0 | 117.4 | 114.4 | 110.0 | 105.2 |
| Germany | 31.8 | 41.7 | 41.8 | 43.8 | 40.3 ³ | 43.0 | 47.0 | 49.3 | 57.0 | 59.8 | 60.9 | 60.7 | 61.0 | 60.7 | 59.5 |
| Spain | 16.8 | 41.9 | 41.4 | 43.2 | 43.9 | 46.3 | 57.9 | 60.4 | 63.2 | 68.1 | 66.7 | 64.9 | 63.5 | 62.3 | 59.9 |
| France | 19.3 | 30.3 | 33.9 | 34.9 | 35.2 | 39.0 | 44.3 | 47.6 | 51.9 | 57.1 | 59.0 | 59.3 | 58.6 | 58.2 | 57.1 |
| Ireland | 67.7 | 98.6 | 98.7 | 92.6 | 92.4 | 90.0 | 94.0 | 88.1 | 80.8 | 74.1 | 65.3 | 55.6 | 52.4 | 45.2 | 38.1 |
| Italy | 57.9 | 81.9 | 95.4 | 97.3 | 100.6 | 107.7 | 118.1 | 123.8 | 123.2 | 122.2 | 119.8 | 116.3 | 114.9 | 110.8 | 106.6 |
| The Netherlands | 45.1 | 68.7 | 76.0 | 75.6 | 75.7 | 76.4 | 77.6 | 74.0 | 75.5 | 75.3 | 70.3 | 67.0 | 63.7 | 58.7 | 54.5 |
| Austria | 35.8 | 48.8 | 57.6 | 56.8 | 57.0 | 56.9 | 61.4 | 64.2 | 68.0 | 68.3 | 63.9 | 63.5 | 64.6 | 64.0 | 63.6 |
| Portugal | 31.9 | 60.8 | 62.2 | 64.2 | 66.1 | 58.8 | 62.0 | 62.7 | 64.7 | 63.6 | 60.3 | 56.5 | 56.7 | 57.0 | 55.1 |
| Finland | 11.5 | 16.2 | 14.7 | 14.3 | 22.7 | 40.7 | 56.8 | 58.3 | 56.6 | 57.1 | 54.1 | 49.0 | 47.1 | 42.7 | 38.0 |
| EU11 ⁴ | 34.7 | 51.9 | 56.7 | 58.1 | 57.9 | 61.2 | 66.1 | 68.4 | 71.6 | 74.9 | 74.7 | 73.1 | 72.3 | 70.5 | 68.2 |
| Denmark | 37.6 | 70.4 | 57.9 | 57.7 | 62.3 | 66.4 | 78.0 | 73.5 | 69.3 | 65.1 | 61.4 | 55.8 | 52.5 | 49.3 | 46.3 |
| Greece | 23.6 | 50.9 | 68.4 | 89.0 | 91.2 | 97.5 | 110.2 | 107.9 | 108.7 | 111.3 | 108.5 | 105.4 | 104.4 | 103.8 | 99.7 |
| Sweden | 39.6 | 61.6 | 43.9 | 42.1 | 51.2 | 64.8 | 75.1 | 77.7 | 76.6 | 76.0 | 75.0 | 72.4 | 65.5 | 61.3 | 55.4 |
| United Kingdom | 54.7 | 54.1 | 37.7 | 35.0 | 35.1 | 41.1 | 47.8 | 49.8 | 52.0 | 52.7 | 50.9 | 48.4 | 45.9 | 42.4 | 39.4 |
| EU15 ⁴ | 37.9 | 53.0 | 53.5 | 54.5 | 54.9 | 59.1 | 64.7 | 66.8 | 69.8 | 72.2 | 71.1 | 69.1 | 67.7 | 65.1 | 62.5 |

Source: European Commission (2000b).

Notes

- 1 From 1996: ESA 95 definitions.
- 2 Estimation.
- 3 From 1991: including the former GDR.
- 4 Excluding Luxembourg.

recommendations by the Commission and comments by the European Council. According to art. 99 TEC, the basic directions are to provide the foundation of co-ordinated national economic and fiscal policies.

Concerning the actual implementation of those programmes, one has to note that they are clearly more than a scrap of paper presented due to formal obligations. In its report for 1999, for example, the European Commission (2000a) has emphasized that the budgetary targets given have been reached or even out-done. In 1999 the Nordic countries (Ireland, Luxembourg, the Netherlands and the United Kingdom) had budget surpluses. Germany, Belgium, Spain and Greece had a deficit of 1.0 to 1.5 per cent of GDP, while deficits in France, Italy, Austria and Portugal were about 2.0 per cent. Only Austria and Portugal narrowly missed their projected budget balances of -2.0 per cent of GDP.

The disciplining effect of the co-ordination and control mechanism of SGP on national policies has also already been demonstrated (Osterkamp, 2000; Rotte, 2000). Following some criticism by the Commission in spring 1999, the Austrian government hurried to promise further efforts of fiscal consolidation. At the same time Italy corrected its deficit projection for 1999 from 2.0 to 2.4 per cent of GDP. While this was granted by the Council, the Italian government tried nevertheless to stick to the original target and finally managed to achieve it. These two examples show that SGP does work according to its intentions. The exceptional amendment of the Italian stability programme in spring 1999 contradicts in fact its interpretation as the original sin of SGP that could be found, for example, in conservative comments in Germany. The formally granted excession of the original deficit target was obviously not used as an authorization for a less rigid fiscal policy but was only a reserve position that became obsolete by the better than expected economic performance. The Italian example therefore demonstrates some flexibility of SGP which helps to avoid too much dogmatism in economic policy. Moreover, the deficits of 2.0 or 2.4 per cent were still far below the 3 per cent mark defining an excessive deficit in the Treaties. Since the establishment of SGP no EU country, including EMU laggard Greece, has had a deficit that might have come close to the 3 per cent benchmark for the excessive deficit procedures.

Conclusion

Persistent deficit spending is a basic problem of the political economy of democracies. By establishing rules and control mechanisms for fiscal deficits in its member countries, the European Union has provided a new, collective approach to tackle this problem. The Maastricht criteria for EMU of 1991 as well as the self-commitment to permanent fiscal restraint as specified in the Stability and Growth Pact of 1996-97, combine the principles of delegation of national political responsibility for austerity measures to international organizations with positive public attitudes toward European political integration. These two elements enable governments to implement fiscal reform in order to keep their countries on the track of integration. Furthermore, codification of

the rules in unanimous international agreements as well as the important role of supranational institutions like the EU Commission and the European Central Bank in assessing national fiscal policies support the maintenance of fiscal discipline, especially in the case of EMU member states. Empirical evidence suggests that the Maastricht and SGP regimes have been a success so far and that the underlying politico-economic mechanism of Europeanization of economic authority actually works in the way described above.

Nevertheless, the real test of SGP has still to be passed. So far, fiscal restraint in Europe since the mid-1990s has been eased by an improving economic environment and growth while fundamental problems, like the reorganization of public health care and pension systems have hardly been tackled so far. Only necessary reforms of the welfare state and economic recession will ultimately show if the governments' self-commitment to fiscal discipline, even if it is backed up by collective European, quasi-federal structures and controls, is strong enough to endure the real hardships of domestic policy to be expected in the coming years.

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Part II

Development of EU budgetary measures

3 The development of EU budgetary measures and the rise of structural funding

Jeffrey Harrop

Introduction

This chapter examines the ways in which the EU Budget has been financed and the role it has played in terms of allocating and redistributing resources. Particular emphasis is given to the growth of the Structural Funds to provide modest redistribution. This has partly changed the role of the Budget from its original conception and is shedding fresh light on the new kind of European Union which is emerging. It will be argued that the original size of the EU Budget was too small and even today remains insufficient to achieve economic convergence. Further, the proposed resources made available for an enlarged EU appear insufficient and it seems likely that the Budget may need to grow to ensure that the Union will have sufficient resources to finance future expenditures, especially for eastern enlargement.

It is necessary to examine the operation of the EU Budget both in terms of its revenue and its expenditure, before considering the reforms introduced by the Delors I and II packages. On the expenditure side the most significant feature has been the growth of the Structural Funds and this is covered in detail. Finally, the issue of budgetary transfers between member states is analysed, particularly in terms of the way this has affected the United Kingdom.

Key features of the Budget

The Community's Budget derives from the positive law in the financial provisions of the treaties plus a significant amount of soft law which has been significantly consolidated recently from the interinstitutional agreements. In the early years of what was then the Community there were several budgets because of the autonomy of the institutions established under the ECSC, the EEC and the European Atomic Energy Community. However, there has now been a unification of these budgets resulting in a single document with the General Budget and the ECSC operating Budget. The European Development Fund (EDF) has been separate, with a token entry in the Budget, but the wish of the European Parliament is to integrate its activities into the General Budget. Budget operations are annual, but to provide for multi-annual operations

there are commitment appropriations and payment appropriations. Each appropriation is specified for given purposes. Budget items are generally entered normally, but token entries occur when special conditions apply, and whenever a dash (–) is found in a Budget heading, this has ceased to be operational but remains in the Budget to complete the implementation of payment appropriations for previous years.

The EU Budget differs from national budgets in various ways. Although it appears large in absolute terms, when expressed as a percentage of GDP it stands at only 1.27 per cent of GDP. The expenditure of the EU15 is similar to the total national expenditure by a small European country such as Denmark. This under-development of the Federal Budget, compared with member states' budgets, is a consequence of the absence of big expenditure on defence, social security and education which are mainly conducted by the member states. The EU Budget is also an accounting budget which is expected to balance and not to engage in national functional macroeconomic Keynesian stabilization policies. The EU Budget excludes lending and borrowing activities, though these have been extensive for coal and steel, nuclear energy, the New Community Instrument for investment by Small and Medium-sized Enterprises (SMEs), balance of payments assistance, and finally, the massive role of the European Investment Bank. Also note that the European Investment Fund was established in 1994 and 40 per cent of the capital is subscribed by the EIB (with the rest by the European Union and banks). It guarantees loans for infrastructure and more risky SMEs and it is also intended to develop further by taking an equity interest.

Revenue

The creation of the ECSC under the Treaty of Paris in 1951 provided for an administrative budget and an operating budget, and the establishment of the EEC in 1957 provided a single budgetary mechanism.

The separate budgetary arrangements of the ECSC, Euratom and the EEC were brought together into a General Budget after their merger in 1968. Both Euratom and the EEC were initially dependent for their receipts on national contributions and a key was constructed to determine these, based on national income and the degree of involvement in different activities. This was a reasonably fair system, but the Community decided that it needed its own direct sources of revenue. The Luxembourg Agreements concluded in 1970 replaced the financial contributions from member states by a system of own resources and also began the process of increasing the role of the European Parliament. For example, by the mid-1970s the EP obtained the final word on non-compulsory expenditure as long as it did not exceed the maximum rate of increase. In addition, it was the President of Parliament and not the President of the Council who was able to declare the Budget finally adopted.

In relation to the Community's own resources it began to use both customs duties derived from the Common External Tariff and agricultural levies on

imports from outside the EU. These agricultural levies have mainly been replaced by agricultural duties since the GATT agreements from mid-1995. Sugar and isoglucose levies are also applied on production and storage, plus an additional levy to offset the overall loss since the 1988–89 marketing year which is not covered by the yield of the production levies. The Community's duties are collected at important entry points: ports such as Rotterdam and Antwerp. Since the goods' final destination is often elsewhere, such as Germany, it was decided that logically the revenue raised should accrue not to national governments but to the Community. The European Union was influenced in its desire to have its own direct source of revenue by the ECSC, which imposed levies on coal and steel production, and these are now incorporated in the full EU budgetary receipts. The lack of dynamism in revenue receipts, because of tariff cuts in GATT and increasing agricultural self-sufficiency, led to a growing dependence upon VAT resources. These are derived from the application of a uniform rate to each member state's VAT base, applied in a uniform manner to accord with Community rules. This over-reliance upon VAT was generally a mistake because VAT tends to be a regressive tax, since in poorer countries consumption accounts for a larger share of disposable income than in richer countries. Furthermore, since investment and exports, which are both higher in richer countries, were not subject to VAT, this resulted in the poor contributing proportionally more than the rich. Nevertheless, it became necessary to raise the VAT ceiling from 1 per cent to a maximum of 1.4 per cent from January 1986, with pressure to raise this further.

It became necessary to search for additional sources of revenue and the introduction of a fourth resource as part of the Delors I package was introduced in 1988. The common rate of VAT at 1.4 per cent was left unchanged and the assessment base for VAT was not to exceed 55 per cent of GNP at market prices, thus ensuring that high consumption and low income member states would not contribute too much. The fourth resource was calculated by applying a rate on the difference between each member state's GNP and its harmonized VAT base. The general trend between the four main sources of Community revenue from 1971 to 2000 was a continuous annual fall of customs duties from 1978 and the rise of VAT receipts from 1979 until the introduction of the fourth resource in 1988. Revenue was limited to a ceiling of 1.2 per cent of EU GNP in 1992.

The Delors II package reduced the VAT rate from 1.4 to 1 per cent, accompanied by a reduction of the assessment base for VAT from 55 to 50 per cent of GNP for member states with a per-capita GNP of less than 90 per cent of the Community average. By 1999 VAT receipts had dropped below those linked to GNP and the Budget on the revenue side is now much more equitable. Revenue was limited to a ceiling of 1.27 per cent of EU GNP by 1999.

It was agreed at the Berlin Summit in March 1999 that there would be a progressive reduction in the dependence on the VAT base from a notional 1 per cent to 0.75 per cent in 2002 and 0.5 per cent in 2004. Traditional own

resources are paid to the Commission within two months of establishment of the entitlement and 10 per cent has been deducted to cover member states' collection costs and this deduction for collection costs increased from 10 to 25 per cent from the beginning of 2001. Whilst revenue sources currently appear ample, should revenue prove unexpectedly insufficient for an enlarging Union, then perhaps other alternative sources may have to be considered and ones which could be introduced might extend to environmental taxes or corporate taxes.

Expenditure

A small amount of expenditure goes on financing staff (32,077 in 1999) and administration of the institutions: Parliament, Council, Commission, Court of Justice, Court of Auditors, Economic and Social Committee and Committee of the Regions.

The bulk of expenditure has been allocated to EU operations of which the dominant section has been agriculture. This has underpinned the ambitious objectives of the Common Agricultural Policy (CAP) which have proved costly as reflected by EAGGF expenditure. The composition of Community expenditure was changed from its early domination by ECSC expenditure and administrative costs to EAGGF expenditure after 1965. Its share of the Budget, for example, was about 75 per cent in 1973 and around 70 per cent in 1978, falling to 45 per cent by 2000. While the percentage of budgetary expenditure devoted to agriculture has fallen, in absolute terms it has continued to increase. Note that there is also a separate monetary reserve in addition to provide appropriations for agriculture to cover any shortfall caused by decline in the US dollar against the euro. Agriculture's share of budgetary expenditure has continued to remain too high in relation to agriculture's diminishing share of EU employment and the growing need for more desirable expenditure in other areas. Open-ended and automatic agricultural expenditure created problems, necessitating reform. One significant change was the Brussels Council Agreement in 1988 which laid down that the annual growth of EAGGF Guarantee expenditure should not exceed 74 per cent of the annual growth of the Community GNP.

Other necessary expenditure has been increased to improve the competitiveness of EU industry with more spending on R&D and on Trans-European Networks (TENS). Between 1993–99 there was a 30 per cent increase in internal policies, focusing on research, with the highest growth rate in expenditure being for TENS. The latter also has implications for regional development and this will be considered in greater depth in relation to the Structural Funds. Unfortunately most existing expenditure policies such as the CAP and high tech policies for industry have tended to reinforce regional inequalities or at best be neutral. Despite some improvement, even TENS have benefits for core regions as well as the more peripheral and poor ones. Between 1993 and 1999 preparations for the accession and adjustment of new members

also led to an increase in external action expenditure by over 40 per cent and reached 6.2 per cent of the Budget for 2000.

Budgetary redistribution and the role of the structural funds

The normal macroeconomic exposition of a national budget is that of an automatic stabilizer. Given low incomes and low employment, low tax revenue is collected (from income tax, VAT and corporation tax), and there is a high level of government expenditure on welfare and unemployment benefits. Thus in a recession there is a budget deficit. Where $G = T$ there is a balanced budget. With a higher level of economic growth and employment there is a budget surplus in which $T > G$. National policies may still just be sufficient to achieve minimal stabilization in the EU.

National budgets act not only as automatic stabilizers but also redistribute income by progressive taxation and welfare expenditure. Automatic redistribution takes place to help the poor and to the extent that a majority of poor people characterize poorer regions then they are the major beneficiaries. For example, poor regions, such as lagging regions and regions in the process of restructuring, lie to the left of the budgetary balance so that $G > T$, whereas core regions lie to the right of the budgetary balance so that $T > G$. The main redistribution occurs through national budgets since they are large and welfare orientated. In contrast the EU Budget is very small, lacks the federal arrangements seen in North America and is not concerned with normal social welfare policies (Bayoumi and Masson 1995).

How much should one prioritize the regional dimension of social need? For example, it is not well targeted since there are some rich people in poor regions and some poor people in rich regions. However, by ensuring that the needy poor in the weakest EU regions are helped, this reaffirms a feeling of community and solidarity. Since this is still weaker at EU than at national level, EU policy is not based mainly on social transfers since these create a welfare dependency culture. Instead EU policy is based mainly on direct regional aid to try to create conditions in which weaker areas are enabled to catch up and improve their economic potential in order to 'stand on their own feet' eventually. In establishing an explicit regional policy the EU differs from the much more neo-classical and minimalist free trading approach reflected by the United States and manifest in NAFTA (Sweet, 1999). The EU has moved beyond reliance mainly on market forces and a benign neglect of active regional policy in the Treaty of Rome towards accepting the obligations of a firm and extensive regional policy.

The most significant change in budgetary expenditure has been in terms of the growth of the Structural Funds (SFs). These comprise the European Regional Development Fund, the European Social Fund, the European Agricultural Guidance Fund and the Financial Instrument for Fisheries Guidance, while the Cohesion Fund is usually shown as a separate part of structural

operations. Structural Fund expenditure really began to take off after 1975 when it accounted for 6.2 per cent of total budgetary expenditure and the newly created ERDF accounted for 2.5 per cent of total expenditure. The ERDF, which is the only fund devoted solely to regional development, has become the dominant fund and by 2000 was responsible for 15.7 per cent of total budgetary expenditure. The ERDF has focused strongly upon 'hard' transport infrastructure but has also broadened its expenditure on general infrastructure, productive investment and SMEs. The ESF is concerned with 'soft' labour market infrastructure and deals with labour mobility training and retraining matters, etc. By 1999, the share of the Budget devoted to the CAP had fallen to 42.2 per cent whilst 40.5 per cent of the Budget was allocated to structural operations. The latter developed for a variety of reasons. It was recognized that the convergence of market forces was insufficient and that regional disparities were likely to be self-reinforcing rather than self-correcting. For example, the Single European Market with its focus increasingly on removing NTBs to high tech industries and services, was more likely to benefit the core areas in the EU at the expense of the poorer and more peripheral areas. Enlargement to southern Europe meant that politically they were able to extract further structural funding as a quid pro quo for the creation of the SEM. The MacDougall Report of 1977 had recommended a much larger Budget than currently exists and significant regional transfers.

Given the increasing goal of economic and social cohesion, the Structural Funds were reformed in 1988 and 1993 to provide greater concentration of expenditure and the establishment of priority objectives. The first Objective was to help less developed regions to catch up, i.e. those with per-capita GDP less than 75 per cent of the Community average. From 1989–93, 63 per cent of the SFs went on Objective I and this increased to 74 per cent 1994–99. The second Objective has been to assist conversion in declining industrial regions and 1989–93 this accounted for 11 per cent of expenditure which fell to 6 per cent in 1994–99. Objectives 3 and 4 are horizontal in nature, with Objective 3 dealing with unemployment and social exclusion and Objective 4 applying to changes which are threatening those already in employment. Objective 5a has been to speed up the adjustment of agricultural structures and has been tackled by the European Agricultural Guidance Fund and the Financial Instrument for Fisheries Guidance. Objective 5b is regional, laying down the general criteria of a low level of economic development involving features such as low agricultural income, high agricultural unemployment and depopulation.

A new Objective 6 was introduced after the 1995 enlargement of the EU to include countries with a low population density (with fewer than eight people per square kilometre). In Agenda 2000 the Commission proposed to reduce the number of Objectives to three: Objective 1 to focus on all aspects of under-development of lagging regions and account for 69.7 per cent of expenditure, and Objective 2 to include all regions' restructuring in the face of industrial difficulties and receive 11.5 per cent (note that an additional percentage for trans-national support is also committed to both Objective 1 and Objective 2

regions). Finally, Objective 3 is a horizontal objective for Human Resources to modernize education and employment and to account for 12.3 per cent of the SFs. The EU has encouraged Community Initiatives (CIs) mainly to alleviate common problems affecting border regions, employment and adaptation to industrial change. Unfortunately CIs mushroomed and have now been pruned back. The EU has proposed to concentrate on three fields: cross-border and trans-national co-operation; rural development; and human resources (with particular attention to equal opportunities).

The SFs have elevated the role and significance of the regions, helping them to develop strongly, mainly through neo-classical supply-side benefits, encouraging them to improve economic performance. Problems have been in getting matching funding which has been difficult for the poorer member states, and also in trying to make sure that expenditure really is 'additional'. When SFs are fully matched by national funding and truly additional, this doubles the total expenditure. There is both a problem of weaker regions which exist in rich member states, now including Germany since unification, but more significantly a problem of poor regions in poor member states, particularly in southern Europe.

To the extent that there is a need for national redistribution, this has been provided by the Cohesion Fund which was established to cater for member states with less than 90 per cent of EU per-capita GDP. It has been directed at Spain, Portugal, Greece and Ireland. Spending has been concentrated on transport and environmental projects. The Cohesion Fund accounted for 1.2 per cent of Community expenditure in 1993 and 3.3 per cent in 1999. Unlike Structural Funding, which is supposed to be additional, Cohesion Funding has been conditional, based on the need to reduce budgetary spending as a percentage of GDP to enable countries to fulfil the Maastricht convergence criteria to join the euro. It is assumed that lower interest rates will bring about increased private sector investment. Although the Cohesion Fund has had no explicit remit to create jobs, employment creation has been significant via the initial effects of construction (and demand-side effects) plus long term supply-side benefits from these projects. The Cohesion Fund mainly finances projects and unfortunately some of these have been too small. Some applicants have been motivated by the higher 80–85 per cent level of support than exists in the SFs (Sweet, 1999: 148). Financing of projects at the same stage is not possible from both the SFs and the Cohesion Fund. It has been necessary with proposed eastern enlargement to cap total expenditure so that no country is to receive in transfer more than 4 per cent of its national GDP from the Structural Funds and the Cohesion Fund combined. It was decided that a review of the 90 per cent income criteria would take place in 2003 and that the 80–85 per cent rate of Cohesion Funding would continue.

The redistributive effects of the Structural Funds can be measured either by levels of expenditure (as indicated previously) or by outcomes in terms of economic convergence. Data is available on convergence, with the main measures used being GDP per head and unemployment. Other indicators can

be added, such as activity rates, migration and also supporting figures on social, health and environmental matters. The usual caveat is that in attributing all of the effects to the Structural Funds *per se*, this neglects other changes also taking place and affecting regional performance. Note that there are also statistical limitations in the use of data, for example, GDP statistics at regional level include FDI and may be much in excess of GNP, as in countries such as Ireland. Similarly with unemployment statistics, some people are not counted but have drifted instead into long-term sickness and disability benefits in some economies, especially the United Kingdom. Furthermore, low GDP and high unemployment are not always directly correlated in all cases. Finally, the regional levels (NUTs 1,2,3) are roughly constructed often artificially and sometimes are not comparing 'like with like'.

Notwithstanding these limitations, economic convergence has been slowly taking place and quite strongly for most Objective 1 regions, especially in the Cohesion countries. The main exception has been Greece, which has struggled to provide matching funding and also manifests low productivity and a low participation rate in employment. The bottom ten EU regions (whilst changing their composition very slightly) have managed to raise their GDP over a decade to the mid-1990s to half the EU average. Unfortunately the recession worsened unemployment across EU regions, rising to nearly 30 per cent in the ten worst regions by 1997.

Budgetary transfers

The EU is responsible for the operation of common policies which have been agreed to collectively benefit its members. The main economic benefits are non-budgetary, arising from free trade which provides microeconomic efficiency gains and macroeconomic gains from lower prices and higher employment. There are similarly collective benefits from common expenditure policies financed from the Budget. There are beneficial externalities from many policies such as financing SFs, industrial R&D, TENs infrastructure expenditure and environmental policies, etc. Unfortunately, the main allocation of expenditure, such as the CAP, has proved more controversial because of its distorting trade and budgetary effects.

Within the EU's aggregate gains, some member states' regions and interest groups have done better than others. For example, in trade Germany has tended to run an industrial trade surplus with the rest of the EU while the United Kingdom has tended to experience a trade deficit in industrial products. It is accepted that this is a consequence of market forces and degree of competitiveness. Like the trade account, the budgetary account was initially accepted as the natural consequence of the allocation process. However, it has assumed more significance over time because of its distributive implications. Since the Community's inception, Germany, which has gained on the trade account, has been content to be the largest net contributor to the EU Budget. It accepted that this was the price to be paid for its reintegration politically

into a united Europe. After its reunification with East Germany its continued willingness to finance EU policies has lessened slightly because of the additional expenditure demands to develop Eastern Germany which have dragged down its relative per-capita income position in the EU. Whilst it has been prepared to continue as a good European, sacrificing the D-mark for the euro, it has sought to trim some of the budgetary costs. For example, leading up to the Berlin Summit in 1999, Gerhard Schröder started to imitate the British stance and was successful in reducing Germany's own contribution to the British budgetary rebate. Fortunately Germany, after the minor concessions made to it at the Berlin Summit, has been willing to continue to underwrite much of the added budgetary expenditure necessary for eastern enlargement since it recognises the political benefits which will accrue to it and the immense exporting strength which it has in eastern Europe.

The United Kingdom, with both a trade deficit and a budgetary deficit with the EU, has concentrated its energy on securing a reduction in its excessive net budgetary transfer. The main source of its budgetary imbalance has arisen from the centrality of agriculture in EU budgetary expenditure and to a lesser extent the reliance on agricultural duties to finance this. The United Kingdom as an open economy and liberal importer of world foodstuffs and other goods contributed disproportionately to the Budget. For example, during 1984–89 the United Kingdom was the second largest source of agricultural levies (behind Italy) and the second largest source of customs duties (behind Germany).

When the United Kingdom joined the Community it accepted budgetary contributions beginning at 8.78 per cent in 1973 and increasing to 19.24 per cent in 1977. The Labour government, concerned about its undue burden, pressed forward with renegotiation and agreement was reached at the Dublin Summit in 1975 for a payback system for countries which oversubscribed to the Budget. It applied to gross contributions and a complex system was created for a sliding scale reimbursement. Despite a favourable referendum vote in 1975 to remain in the Community, budgetary difficulties soon resurfaced and were at their most intense during Conservative governments after 1979. The government pressed for a reduction in its contributions and more non-agricultural expenditure which would benefit the United Kingdom. Between 1980 and 1982 the United Kingdom received a refund of about 70 per cent of its net budgetary contribution. Finally, at the Fontainebleau Summit in 1984, the United Kingdom obtained a special guaranteed rebate every year. It agreed a compensation mechanism for 66 per cent of the difference between its share of VAT payments and its receipts from the Budget. This was a major achievement by Mrs Thatcher though inevitably her attitude was seen as *non-communautaire*. It encouraged a conflictual focus on budgetary transfers whereas the architects of European integration had sought to raise their sights above national conflicts. Transfer estimates are available, but need careful examination. For example, in 1985 all member states received positive transfers financed by Germany whose share after the British rebate was ECU –3,500 million.

The UK transfer after the rebate was reduced from ECU –3,000 million to ECU –1,000 million (*The Economist*, 20 June 1987).

The main source of transfers can be found in the Court of Auditors' Annual Reports; for example, in 1989 the United Kingdom accounted for 14.8 per cent of EU own resource contributions and received 9.4 per cent of total EU payments. Germany contributed 25.1 per cent of EU own resources and received 13.4 per cent of EU payments. By 1997 Germany contributed 28.2 per cent of EU own resources and received 13.1 per cent of EU payments. Other net contributors, apart from Germany and the United Kingdom, include the Netherlands which in 1997 paid in 6.4 per cent and received back 3.3 per cent of EU payments. Austria paid in 2.8 per cent and received back 1.7 per cent, and Sweden paid in 3.1 per cent and received back 1.4 per cent. France paid in 17.5 per cent and received 16 per cent. France has held on to its agricultural benefits, thus minimizing its net contribution. Italy was in balance with 11 per cent paid in contributions and 11 per cent in receipts in 1997. Italy has not benefited to the same degree as France from the CAP, but has continued to be conciliatory over its budgetary situation, accepting additional contributions at the Berlin Summit in 1999.

Though lessened over time by fairer financing and the growth of expenditure on the SFs, budgetary anomalies still remain; for example, there are still perverse net budgetary transfers to rich member states such as Denmark, Belgium and Luxembourg. The situation for Belgium and Luxembourg is exaggerated partly by their role in hosting the main Community institutions and all the income does not accrue solely to their own residents. Fortunately the southern enlargement resulted in the Budget transferring benefits to poorer member states, along with Ireland. These are referred to as the four Cohesion countries. The United Kingdom meanwhile has reduced its net contribution to manageable proportions by stubbornly defending its budgetary rebate. It did this successfully at the Berlin Summit in 1999, and in response to German pressure the costs of financing the rebate reduced the contributions of Germany and also Austria, the Netherlands and Sweden to 25 per cent of this, with the balance paid by the other ten member states. The United Kingdom also made some minor concessions; for example, in accepting that it would not receive any rebate for the pre-accession aid to eastern Europe to which the United Kingdom would have been entitled. However, the United Kingdom, by retaining its rebate, has ensured that it will be refunded two-thirds of its assessed contribution to enlargement.

Budgetary reforms

This section highlights the key dates historically when important budgetary reforms have taken place. The Luxembourg Agreements in April 1970 provided budgetary autonomy in the form of own resources. In addition, the role of the European Parliament was increased and in July 1975 the power of the EP to reject the Budget was consolidated in the treaty; also, the EP was given the

final say on non-compulsory expenditure provided that this did not exceed the maximum rate of increase. Note that the political dialogue of budgetary procedure between the Commission, Council and EP is not examined here (details can be found in Commission 1999, pp. 8–9). The focus is mainly on the economic aspects and when the role of the institutions impinges on these, then they are worthy of more consideration, such as the creation of the Court of Auditors in 1975.

During the 1980s the acrimonious United Kingdom budgetary problem was alleviated at the Fontainebleau Summit in 1984 which agreed the important principle of a budgetary rebate. After settling existing agreements between the member states, this paved the way for further southern enlargement to include Iberia in 1986. This, plus the conclusion of the Single European Act, led to important reforms in the first Delors package. This established a financial perspective from 1988 to 1992. The aim of the financial perspective is to indicate political priorities and to set binding expenditure ceilings. This leaves the annual budgets to determine the actual level of expenditure and to divide the appropriations between the different budgetary headings. On the revenue side, a key development was the introduction of a fourth resource linked to GNP and limiting expenditure to an own resources ceiling which was 1.15 per cent of GNP in 1988 and 1.20 per cent in 1992. Budgetary procedure was improved through the Interinstitutional Agreement between the Commission, Council and European Parliament, helping to avoid major clashes between the institutions. This reinforced the objective of tighter budgetary discipline over the various expenditure headings. The rise of agricultural expenditure under heading 1 was limited to make room for increased expenditure under the other 5 headings (with heading 6 constituting a monetary reserve). Expenditure was revised according to unexpected changes internationally, such as German re-unification and the new situation in eastern Europe, etc. However, the level of budgetary spending was contained below the own resource ceilings, partly through better procedures, plus rising GNP and favourable international conditions in agriculture.

A new financial perspective was proposed in 1992 (Delors II) showing significant continuity from the Delors I package. The six expenditure headings are similar to those in Delors I, with a few minor changes; for example, heading 3 is internal policies and includes a significant increase to finance the TENs. Heading 4 provided a significant increase for 'external action'. Heading 2 showed continued growth of the SFs, with the innovation of the Cohesion Fund. As a consequence, the four member states eligible for this, plus the Objective 1 funding, were to receive twice as much in 1999 as under Objective 1 in 1992.

The new financial perspective extended over a longer time period and was adjusted mid-stream to cater for the fourth enlargement of the EU in 1995. Some consequences of this enlargement were to increase expenditure under the various headings (for example, a new Objective 6 under the SFs for sparsely populated regions), plus a new heading 7 to cover financial compensation of

Austria, Finland and Sweden, largely in connection with agriculture. For the EU15 there was also a larger margin left over of 0.03 per cent of GNP for 1998 and 1999. The principle of budgetary discipline continued by getting the EP to co-operate and respect the annual financial ceilings. The Interinstitutional Agreement consolidated a tight budgetary approach, continuing to respect key principles of having no budget appropriations before adoption of a legal base; keeping margins under the ceilings for each heading to enable additional appropriations to be entered if necessary without the need for any revision; and ensuring that insignificant amounts are generally not entered in the Budget.

Enlargement and the new financial perspective

The Commission in its Agenda 2000 Report published in 1997 assessed the applicants for membership under the three criteria drawn up to cover the political and economic acceptability along with acceptance of the *acquis communautaire*. The economic criteria require the existence of a functioning market economy, as well as the capacity to cope with competitive pressure and market forces within the EU. The Commission divided the applicants into two groups, with the favoured group consisting of the Czech Republic, Hungary, Poland, Slovenia and Estonia (plus Cyprus). These are regarded as 'pre-ins', with the weaker applicants such as Bulgaria, Romania, Slovakia, Latvia and Lithuania (plus Malta) to join later. Unfortunately, many of the CEECs have never been market economies and therefore an enormous transition is necessary. Whilst the EU has already provided limited trading access and modest financial help, at times its overemphasis on macroeconomic nominal convergence (for example, as part of its Maastricht EMU conditions) has aggravated the problems in the real economy, such as rising unemployment. Full entry to the EU poses further opportunities and also immense problems on both sides.

The main components of Agenda 2000 were agreed at the Berlin Summit in 1999. A new Interinstitutional Agreement was finally adopted and sets out the new financial perspective from 2000 to 2006. On the revenue side there is less reliance on VAT; also, the financing of the UK budgetary rebate has been adjusted, reducing the shares paid by some member states who felt that they were contributing too much. On the expenditure side, under heading 1 the ceiling on CAP expenditure is set in line with estimated growth in actual expenditure, taking into account agreed reforms. The agricultural guideline covers CAP expenditure plus agriculture-related pre-accession aid. There is also a separate sub-heading for rural development and accompanying measures and these are classed as non-compulsory expenditure. Apart from the usual six headings, there is a new heading 7 which provides pre-accession aid and three instruments which include the agricultural instrument (SAPAR), the structural instrument (ISPA) and an enhanced PHARE programme for the applicant countries. While the PHARE expenditure has increased significantly, the proposed agricultural expenditure looks modest and will inevitably have

to rise much more after enlargement. Expenditure under heading 7 is to be used solely for new members, while spending under headings 1 to 6 is completely separate for the EU15. Whilst the needs of the CEECs are enormous, the financial framework leaves a substantial margin under the own resources ceiling for unforeseen expenditure; for example, from the own resources ceiling still fixed at only 1.27 per cent each year, ceiling payments as a percentage of GNP are 1.13 per cent in 2000 and 2006, giving a margin of 0.14 per cent.

The European Council and Commission may have taken an overly optimistic view regarding the limited financing needed for the Union's next enlargement since these are all countries with low per-capita GNP and enormous needs for economic development. It is based upon an unchanging maximum of own resources of 1.27 per cent of EU GNP. Assumptions that most of the costs of enlargement will come from increased economic growth depend upon a sustained economic performance. The assumption is that annual economic growth in the EU15 will average 2.5 per cent, whilst new member states are expected to grow at 4 per cent around 2006. Cuts in existing policies such as regional aid will impact undesirably on existing member states which face cutbacks in structural funding. To make room for quite generous pre-accession structural operations the Structural Fund expenditure for the EU15 per annum at 1999 prices is set to fall each year. Also, the percentage allocated to Community Initiatives is set to fall. At the Berlin Summit it was further agreed that the number of regions receiving aid would be cut from 51 per cent of the EU15 population to 42 per cent. Transition payments to regions no longer eligible will be given to cushion the changes. The four Cohesion countries were given special financial allowance to maintain the combined level of aid they received in 1999. However, they accepted that when their per-capita GNP reaches 90 per cent of the new EU average, they will no longer be eligible for Cohesion Funding. For example, Ireland is set to lose significantly from its structural receipts, including the Cohesion Fund.

The Commission aims to keep the total cost of structural policies below the level of 0.46 per cent of EU GDP. There will be a maximum of 4 per cent of GDP for transfers to the poorest Member States from the Structural Funds and the Cohesion Fund. Finally, the implementation of continued agricultural reform proposed by the Commission still needs to be implemented to avoid continued budgetary problems from the less efficient and more agriculture-dependent CEECs. For example, both Romania and Poland have had around a quarter of their labour force employed in agriculture and all the CEECs have a larger percentage of their labour force in agriculture than the current EU15.

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4 The development of the EU Budget and EMU¹

Brian Ardy

Introduction

Monetary unions historically have only persisted for nation states² (Bordo and Jonung, 2000) and they are, therefore, associated with comparatively large federal/central government budgets. These budgets, besides financing the provision of government goods and services, also enable fiscal policy to be used to stabilize the economy and to transfer resources between different regions³ within the country. Economic and Monetary Union (EMU) in the European Union (EU) is different, as there is no federal government endowed with a large budget. EU member states have only ceded control over government expenditure and taxation reluctantly and to a very limited extent. Most EU policies have developed on the basis of creating a framework of legislation with little EU expenditure. This is true of the most EU policies such as EMU, the Single Market, Environmental Policy, Competition Policy etc. European Union expenditure is further limited by the fact that the operation of policies remains largely the responsibility of the member states.

Does the lack of significant EU budget pose problems for the operation of EMU? This chapter, which will seek to answer this question, is arranged in four sections. First, the macroeconomic stabilization, insurance and redistribution functions of federal budgets are considered. Second, the characteristics of the EU Budget are examined and the degree to which it can achieve these functions assessed. Third, the differences between the EU and other federal budgets will be analysed in relation to the three macroeconomic objectives. Finally, an overall evaluation will be made of the role of the EU Budget in relation to EMU.

The macroeconomic functions of federal budgets

There are two macroeconomic roles for the budget in a federation: fiscal policy and transfers between regions. Fiscal policy is the manipulation of the balance between government expenditure and revenue so as to influence aggregate demand in the economy. The discretionary use of fiscal policy fell out of favour with the end of the post-war boom and the increasing ascendancy of monetary economics. There were concerns over the effectiveness of fiscal expansions in

the face of crowding out and possible effects of increased national debt on consumption, as well as practical problems with its implementation. Various studies (Buti *et al.*, 1997; Alesina and Perotti, 1995; IMF, 1999a) suggested that budgetary policies have not always been anti-cyclical,⁴ because of technical problems, as a result of the constraints of large debt and deficits,⁵ or for political reasons.⁶ There is still, however, seen to be a role for fiscal policy in the form of automatic stabilizers⁷ (Buti and Sapir, 1998). Whether federal fiscal policy is discretionary or automatic, there are three requirements for its effective operation. First, the federal/central budget should be large in relation to the economy otherwise changes in the budgetary position will have little impact on the economy. Second, it must be possible to change the balance between expenditure and revenue in a counter cyclical manner.⁸ A balanced budget is of no use for stabilization purposes. Third, fiscal and monetary policy should be co-ordinated so that both elements of macroeconomic policy are pulling in the same direction (Blake and Weale, 1998; Hall *et al.*, 1999).

Regions within a monetary union if affected by asymmetric shocks can no longer use the exchange rate as a shock absorbing mechanism. One process that mitigates the impact of asymmetric shocks on regions in nation states is a system of automatic transfers from the central/federal budget. Central/federal fiscal policy will act as a means of interregional risk-sharing by transferring resources between regions. These transfers perform three types of function (Fatas, 1998): inter-temporal stabilization, interregional insurance and inter-regional redistribution. The first two stabilize regional income, the third reduces inequalities in income levels between regions. Inter-temporal stabilization seeks to smooth fluctuations in income levels by compensatory movements in the public sector deficit, the Keynesian stabilization function. Thus, in a recession government borrowing and debt expand and in the future, when the economy is growing more quickly, this borrowing can be repaid. Inter-regional insurance can occur when economic cycles are imperfectly correlated between regions. Under these circumstances tax revenue from fast growing regions can be transferred to slow growing regions to finance public expenditure and so smooth the economic cycle. Interregional redistribution involves the transfer of resources from more prosperous to less prosperous regions. Such transfers might be justified in terms of the solidarity of the nation state or to achieve a fairer individual distribution of income.

The delineation of these transfers in theory, and their separation in reality, are another matter. In national monetary unions, transfers between regions perform all three functions. For example, national progressive taxation used to finance social security will automatically achieve some interregional insurance, inter-temporal stabilization and interregional redistribution. The large size of the central government budget relative to that of the regions and restrictions on regional budgets⁹ means that inter-temporal stabilization in national monetary unions is a central government responsibility. This is also the case with interregional insurance and redistribution; the difference between these largely hinges on the length persistence of the shock. Thus, if

two regions had similar per capita income levels but one suffered a temporary shock reducing income, transfers from the growing to the contracting region would be interregional insurance. If, by contrast, the shock was permanent then the difference between the regions would persist and the interregional transfers, if they were not time limited, would become interregional redistribution.

The EU Budget

The EU Budget differs from that of national governments in four fundamental ways: it is more tightly regulated; it is much smaller; the pattern of expenditure is completely different; and the sources of finance are distinct. These differences demonstrate the extent to which member states wanted to limit EU competence in this sensitive area of government activity. Recent controversy in the United Kingdom over an EU-wide tax on saving¹⁰ and further EU tax harmonization have emphasized the political salience of this issue. Thus budgetary rules contained in the EEC Treaty have been designed to ensure maximum control by member states and minimum discretion of EU institutions over expenditure and revenue. There are five basic principles derived from the treaties (European Union, 1997): annuality, balance, unity, universality and specification. Annuity means that the budget is only for the one year, and that authorization cannot be given beyond this year. This prevents the build-up of long-term commitments but has caused some problems because much EU expenditure is now on multi-annual programmes. The practical reconciliation of these two conflicting requirements has been through the use of commitments for future years, which strictly do not have to be honoured but which in practice usually are. Balance ensures that revenue covers expenditure and deficit financing is not permitted.¹¹ Unity requires that all expenditure be entered in a single budget document. Universality follows with all EU revenue and expenditure being included in the budget, such that there are to be no self-cancelling items. Specification requires that expenditure is allocated to a particular objective and is used for the purposes the budgetary authority intended. There is however some possibility for transfers between categories for the effective execution of the Budget.

National government budgets and the EU Budget: a comparison

Over time the size of the EU Budget has expanded but overall expenditure continues to be subject to strict limits. The EEC began financing its operations like other international organizations with national contributions as fixed shares of the overall budget. In 1970 with policies especially the Common Agricultural Policy (CAP) developing and expenditure rising, a system of 'Own Resources' as provided for in the EEC Treaty was set up. 'Own Resources' were the proceeds from the Common Customs Tariff (CCT), Agricultural and Sugar Levies¹² and VAT up to a maximum rate of 1 per cent¹³

on the harmonized base. The revenue from these resources represented the upper limit of EC budgetary expenditure. In 1988 a fourth GNP-based resource was added and the overall budgetary limit was expressed as a proportion of EU GNP, 1.27 per cent since 1993.¹⁴ This maximum level of expenditure can be changed but to do so requires the unanimous agreement of the member states. In agreeing to the latest 7-year financial framework for the EU Budget in 1999 (European Council, 1999) the member states showed that not only were they not prepared to raise this ceiling but that they wanted expenditure constrained at a lower level (Begg, 2000).

Revenue from the CCT and agricultural levies so-called traditional own resources (TOR) has been declining with reductions in protection and falling agricultural imports. As can be seen from Table 4.1 over 80 per cent of budgetary revenue now derives from VAT and the GNP resource. The GNP resource paid by each country is calculated by taking the difference between overall EU expenditure and the revenue from TOR and VAT, and multiplying this by the country's share of EU GNP. So it is simply a way of calculating a national contribution, which bears no relation to any particular tax. The VAT contribution has always been somewhat arbitrary because no country actually used the harmonized base. Gradually, to increase the fairness of the budget, it has become even more arbitrary so that the VAT base cannot exceed 50 per cent of GNP. In the 1999 agreement the reduction in the maximum rate of VAT to 0.5 per cent and the increase in the costs of collecting own resources means that when the new system is fully operation two thirds of the budget will be financed by GNP contributions.

Although the EU does have legally independent revenue, this revenue is derived from national governments' tax revenue and is tightly controlled by those governments. What the EU does not have is independent taxes, the rate of which it has the power to independently vary, and from which it directly receives revenue. Thus, the typical revenue resources of federal governments such as income tax, corporation tax, sales taxes, social security contributions (see Table 4.2) are not available to the EU. Typically in nation states the federal/central government controls the most significant revenue resources

Table 4.1 EU revenue sources

| | 1997 | 1998 | 1999 |
|-----------------------------------|----------|----------|----------|
| Agricultural levies | 1.2% | 1.3% | 1.4% |
| Sugar levies | 1.5% | 1.3% | 1.5% |
| Customs duties | 18.1% | 16.4% | 15.8% |
| Costs of collecting own resources | -2.1% | -1.9% | -1.9% |
| VAT | 45.5% | 40.3% | 37.9% |
| GNP | 35.7% | 42.6% | 45.3% |
| Total revenue: ECU/Euro millions | 75,292.9 | 82,249.2 | 82,532.7 |
| Total revenue: % of EU GDP | 0.94 | 1.08 | 1.13 |

Source: European Court of Auditors (1998, 1999, 2000) Annual Report, Luxembourg.

Table 4.2 National central government total revenue, 1997 (% GDP)

| | <i>Income tax</i> | <i>Corporation tax</i> | <i>Social security</i> | <i>Taxes on goods and services</i> | <i>Other</i> | <i>Total</i> |
|-----------------------|-------------------|------------------------|------------------------|------------------------------------|--------------|--------------|
| Federal states | | | | | | |
| Australia | 11.7 | 4.1 | 0.0 | 4.9 | 3.1 | 23.8 |
| United States | 8.9 | 2.2 | 6.5 | 0.7 | 2.0 | 20.3 |
| Switzerland | 3.1 | 2.3 | 12.5 | 5.4 | 0.4 | 23.7 |
| Germany | 3.9 | 0.6 | 15.5 | 6.3 | 5.3 | 31.6 |
| Unitary states | | | | | | |
| France | 6.0 | 2.1 | 17.2 | 11.8 | 4.7 | 41.9 |
| Sweden | 2.7 | 3.2 | 13.6 | 11.2 | 10.2 | 41.0 |
| United Kingdom | 8.9 | 4.2 | 6.1 | 11.6 | 5.0 | 35.8 |
| EU | – | – | – | – | 0.9 | 0.9 |

Source: IMF (1999b).

and provides significant finance for lower tiers of government, whose expenditure is also limited. In the EU's case it is the lower tier, the member states' central governments, that control the vast majority of taxes and derive the revenue from them, thus the finance for the EU derives from these national sources and it is the EU's expenditure that is subject to strict limitation.

European Union budgetary expenditure is concentrated on a narrow range of policies that are not significant for national governments (see Table 4.3). Agricultural plus structural /regional policies alone account for more than 80 per cent of expenditure. The only other important areas of expenditure are research, external action and administration. Research covers EU funding of collaborative scientific projects under a series of framework programmes. External action expenditure reflects the EU's growing role in external relations particularly in relation to Central and Eastern Europe. Administrative expenditure is a fairly large part of the budget because one of the most important roles of the European Commission is monitoring the operation of policies and regulations implemented by the member states.

The distribution of expenditure between levels of government in nation states is shown in Tables 4.4 and 4.5. Even the federal governments of very decentralized nation states such as Switzerland and the United States have levels of central government expenditure many times that of the EU. Member states have large public sectors with total expenditure amounting to 40–50 per cent of GDP. The highest tier of government accounts for most of that expenditure even in a federal state such as Germany. The largest categories of national government expenditure are social security, health, education, defence and debt interest, none of which are significant for the EU. There are very major differences between these policies in different countries reflecting different histories, cultures and preferences. This diversity is part of the reason

Table 4.3 EU budgetary expenditure

| | 1997 | 1998 | 1999 |
|--------------------------------------|--------|--------|--------|
| Agricultural levies | 1.2% | 1.3% | 1.4% |
| CAP markets | 50.3% | 48.1% | 49.5% |
| Structural operations | 32.8% | 35.1% | 33.2% |
| Research | 3.8% | 3.9% | 3.2% |
| External action | 4.9% | 5.0% | 5.7% |
| Administration | 5.1% | 5.2% | 5.6% |
| Other | 2.7% | 2.6% | 2.7% |
| Total expenditure: ECU/Euro millions | 80,236 | 80,713 | 80,301 |
| Total expenditure: % of EU GDP | 1.01 | 1.06 | 1.10 |

Source: European Court of Auditors (1998, 1999, 2000) Annual Report, Luxembourg.

Table 4.4 National central government expenditure by function, 1997 (% GDP)

| | <i>Defence</i> | <i>Education</i> | <i>Health</i> | <i>Social security</i> | <i>Debt interest</i> | <i>Other</i> | <i>Total</i> |
|-----------------------|----------------|------------------|---------------|------------------------|----------------------|--------------|--------------|
| Federal states | | | | | | | |
| Australia | 1.7 | 1.8 | 3.4 | 8.7 | 1.7 | 1.0 | 18.4 |
| United States | 3.2 | 0.4 | 4.3 | 6.0 | 3.1 | 1.4 | 18.4 |
| Switzerland | 1.5 | 0.6 | 5.5 | 14.1 | 0.9 | 0.0 | 22.6 |
| Germany* | 1.3 | 0.2 | 6.4 | 16.9 | 2.4 | 5.3 | 31.9 |
| Unitary states | | | | | | | |
| France** | 2.5 | 3.3 | 10.0 | 17.9 | 2.7 | 6.6 | 43.0 |
| Sweden | 2.3 | 2.4 | 0.1 | 21.0 | 5.4 | 7.6 | 38.8 |
| United Kingdom | 2.7 | 1.6 | 5.5 | 14.0 | 3.5 | 3.2 | 30.5 |
| EU | 0.0 | 0.0 | 0.0 | – | – | 1.0 | 1.0 |

Source: IMF (1999b).

Note

Germany* 1996; France** 1993.

for the very great reluctance to transfer these policies to the EU, and thus they remain firmly under national control. The EU, therefore, has a pattern of expenditure that is totally different from that of national governments.

The difference between the EU and national budgets has potentially important implications for EMU. The small size of the budget and the fact that it has to balance means that it cannot have a macroeconomic stabilizing role for EMU. Although the structural policies do involve redistribution between member states (Ardy, 2002) they cannot provide interregional insurance. This is because the distribution of expenditure is based on a bidding process with long time lags. Nearly 70 per cent of expenditure is concentrated in poorer regions whatever the macroeconomic situation.¹⁵ The relatively small size of these transfers¹⁶ also means that their macroeconomic impact is likely to be limited.

Table 4.5 Government expenditure by level of government, 1997 (% of nominal GDP)

| | <i>Central government</i> | <i>Social security</i> | <i>Central and social security</i> | <i>State and local government</i> | <i>Total government expenditure</i> |
|-----------------------|---------------------------|------------------------|------------------------------------|-----------------------------------|-------------------------------------|
| Federal states | | | | | |
| Australia | 9.6 | 8.7 | 18.4 | 14.0 | 32.4 |
| United States | 12.3 | 6.0 | 18.4 | 10.3 | 28.6 |
| Switzerland | 8.2 | 14.1 | 22.3 | 10.3 | 32.7 |
| Germany* | 14.3 | 16.9 | 31.2 | 13.3 | 44.5 |
| Unitary states | | | | | |
| France | 28.9 | 17.2 | 46.1 | 9.8 | 55.9 |
| Sweden | 17.8 | 21.0 | 38.8 | 22.2 | 60.9 |
| United Kingdom | 16.5 | 14.0 | 30.5 | 11.1 | 41.6 |

Source: IMF (1999b).

Note

Germany* 1996

Is the restricted EU Budget a problem for monetary union?

Euro area stabilization

The EU Budget under its current restrictions is unable to provide stabilization for EMU either as a whole, or for its regions. Aggregate stabilization is ruled out by the small size of the EU Budget and the requirement for it to balance every year. Interregional insurance is ruled out by the way in which the level of expenditure in particular regions is determined. The situation in the EU to an extent inverts that in national monetary unions: most tax revenue and expenditure remains the responsibility of national governments, which for the EU is the regional rather than the federal level.

The norm in fiscal federations is for the federal government to determine the overall fiscal stance with the budgets of lower tiers regulated. With the EU Budget balanced, the overall fiscal stance in EMU is the sum of the national fiscal stances but subject to EU regulation. This regulation is via the Stability and Growth Pact (SGP), which is a classic EU mix of legal regulation and intergovernmental co-operation. The SGP consists of two regulations, first for surveillance (Council of the EU, 1997a) and second for excessive deficits (Council of the EU, 1997b). Surveillance seeks to ensure that member states' budgetary plans are such that they will avoid excessive deficits with compliance achieved by peer pressure and the possibility of adverse publicity,¹⁷ because the only sanction is a recommendation to a member state to modify policy. Fiscal policy is more tightly controlled by the Excessive Deficit Procedure. When a country's deficit exceeds 3 per cent of GDP the Economic and Finance Council of the EU can decide by a qualified majority that an

excessive deficit exists, make recommendations for its correction, and impose penalties if the member state fails to remedy the situation. Excessive deficits are those exceeding 3 per cent of GDP except where the excess is not exceptional and temporary. Penalties include non-interest bearing deposits and, ultimately, fines.

These procedures are geared to the achievement of medium-term budgetary positions close to balance or in surplus. If this is achieved then the overall fiscal stance for EMU should correspond to one appropriate to the cyclical economic situation as a result of the operation of automatic stabilizers. Thus, below average growth for the euro zone will lead to an automatic counter-cycle expansion of the aggregate public sector deficit caused by falling tax revenues and rising expenditure. If, in the medium term, national budgets are close to balance this will give sufficient headroom for the automatic stabilizing response to a recession. Given the continuance of a small EU budget and large national budgets, discretionary fiscal policy at the euro zone level would mean requiring individual governments to adjust their budgetary policies to achieve the overall EU stance. This is not politically feasible as member states would not be prepared to change taxation/public expenditure to achieve the necessary euro zone budgetary stance. Thus, it is not surprising that the EU has opted for the fiscal stance of the euro zone to be determined by automatic stabilizers within an overall framework of responsible budgetary policies.

With the EU Budget balanced and national budgets over the medium-term the overall fiscal stance for EMU is also one of balance. Although such fiscal rectitude seems desirable this could be questioned. One problem is that governments need to be debtors in order to provide the necessary depth and liquidity to financial markets. To an extent corporate debt can fulfil this function but would not offer the security and portfolio possibilities of government debt (Gordon, 1997). The need for balance also rules out the possibility of the government borrowing to cover investment, the 'golden rule' policy that Gordon Brown is currently following in the United Kingdom. Thus the United Kingdom's current expenditure and revenue plans do not fit the EU's Broad Economic Policy Guidelines (Ecofin, 2001) and have also been criticised by the IMF (2001). Given the current importance ascribed to public investment in education and infrastructure as necessary for competitiveness, reductions in public investment could adversely affect rates of economic growth.

The continuance of large national budgets means that inter-temporal stabilization is still possible via changes in these national budgets.¹⁸ Given that inter-temporal stabilization is possible at the national level does not mean that it is optimal at the national level. There may be gains from operating fiscal policy over the larger federal area, for example liquidity effects on public debt may mean that debt is cheaper and, thus, the costs of inter-temporal stabilization are lower (Martin, 1998: 197). A fiscal federation will also have a higher potential to stabilize against shocks unless the national component in income variation is negligible.¹⁹

Interregional stabilization, insurance and redistribution

Interregional stabilization is not, however, possible using either national or EU budgets. So how important is this stabilization and how much of a problem is its absence? The large transfers between regions in monetary unions in developed countries were estimated for the MacDougall Report (MacDougall *et al.*, 1977), which indicated that interregional flows of public finance reduced long run per-capita income differences between regions by between 25 and 53 per cent. This conflated the redistribution and stabilization elements of the flows. The first attempt to separate these elements was carried out by Sala-i-Martin and Sachs (1992), who regressed log-levels of US regional transfers and taxes on personal income. The results suggested that tax and transfers offset 35–44 per cent of variations in US regional income. Thus, despite the flexibility of private interregional adjustment in the United States²⁰ there is still a heavy reliance on fiscal transfers.

The high estimate of stabilization by Sala-i-Martin and Sachs prompted criticism that their method confused stabilization with redistribution. Thus, von Hagen (1992) regressed changes in regional taxes and transfers on changes in regional income, and found that the stabilizing effect was only 10 per cent. Unfortunately the results are not directly comparable; von Hagen uses Gross State Product per-capita which is larger than personal incomes – also there is a much more limited coverage of taxation, for example social security contributions are omitted (Goodhart and Smith, 1993). Both these factors would tend to reduce the estimated extent of stabilization – with a wider coverage of taxation Goodhart and Smith (1993) suggest the stabilizing effect would be 20 per cent. This result is similar to that obtained by Pisani-Ferry *et al.* (1993) who used a simulation model to estimate regional stabilization effect in the United States of 17 per cent. Bayoumi and Masson's (1996) results indicate that using personal income rather than GSP is likely to lead to higher values of stabilization with an estimated 30 per cent. But their specification is also different with stabilization measured by yearly differences but redistribution by long-run averages of levels.

Melitz and Zumer (1998) who attempt a reconciliation of these competing results, estimate stabilization at 20 per cent and redistribution of 17 per cent for the United States. They demonstrate that the higher estimates of stabilization obtained by Sala-i-Martin and Sachs (1992) and Bayoumi and Masson (1996) are the result of the use of state personal income rather than gross state product, together with the inclusion of grants to lower tiers of government. With the exceptions noted, there seems to be fairly general agreement among these studies that in the United States around 20 per cent of the fluctuations in gross state product are offset by fluctuations in federal taxes and transfers. There are, however, four recent studies that come to a much lower figure of around 10 per cent (Obstfeld and Peri, 1998; Fatas, 1998; Asdrubali *et al.*, 1996; Melitz and Zumer, 1999). Obstfeld and Peri's lower estimate is due to a

different specification and estimation technique (a bivariate VAR). These estimates are particularly low considering the dependent variable is relative regional per-capita person income and such low estimates are perhaps due to the dynamic properties of the model. The other authors have more profound critiques of the established methods.

Fatas (1998) argues that estimated stabilization effects include both intertemporal stabilization as well as interregional insurance. He estimates interregional stabilization separately as the reduction in the volatility of regional permanent income²¹ relative to pre-tax income, giving an average value of 11 per cent. There are, however, some questions over his methodology (Andersen, 1998). The relatively low stabilization in the United States is not just the result of low levels of transfers, it is also due to the high correlation and low persistence of shocks across states. Europe suffers from much more persistent shocks so Fatas' argument that stabilization should concentrate on short-term shocks has been questioned (Forni and Reichlin, 1999). 'A fiscal federation by acting through cross-sectional transfers can in principle reduce both short and long run variance' (Forni and Reichlin, 2001: 124).

The role of private capital markets is crucial in cushioning regional specific shocks in the United States (Atkeson and Bayoumi; 1993. Sorensen and Yasha, 1996). Using accounting identities to decompose regional income into its components and then analysing their fluctuations provides another route to estimate stabilization. Asdrubali *et al.* (1996) find that only 13 per cent of shocks are offset by the federal government, but the role of financial markets is crucial: 39 per cent of shocks are offset by cross-regional ownership claims to output and 23 per cent by the extension of credit on an interregional basis. Using a corrected specification and estimation procedure, Melitz and Zumer (1999) have a similar estimate of 13 per cent for the effect of federal stabilization but the role of financial markets and credit are equally important, each offsetting 24 per cent of the shock.²²

Thus far the analysis has concentrated on estimates of stabilization for the United States, a monetary union comparable in size to EMU. Whether it is a good basis for comparison with EMU could be questioned because of its much higher level of interregional labour mobility and lower level of unemployment persistence (Obstfeld and Peri, 1998). Another fundamental difference between EMU and the United States is the much lower level of interregional credit and ownership of assets in EMU. Whilst the cross-border ownership of assets grows and credit markets develop, EMU may be vulnerable to shocks. The lower ability of the EU economies to absorb interregional shocks is perhaps reflected in the higher degrees of interregional stabilization estimated for EU countries. Estimates for the United Kingdom (Goodhart and Smith, 1993), Germany and France (Pisani-Ferry, 1993) and Italy (Decressin, 1999) suggest national stabilization offsets somewhere between 20–40 per cent of changes in regional incomes. Melitz and Zumer's (1998) estimates are towards the bottom of this range with around 20 per cent for the United Kingdom and France.

European Monetary Union, of course, lacks any significant interregional stabilization between its regions; is its absence a significant problem? This depends upon how significant asymmetric shocks²³ will be and the efficacy of other adjustment mechanisms. The ERM and the convergence process of monetary integration seemed to enhance the synchronization of European business cycles (Artis and Zhang, 1999) and it seems likely that EMU will further intensify this process. The national economies²⁴ of EMU remain diversified so their vulnerability to asymmetric shocks and, consequently, the need for interregional stabilization is less. But will the intensification of integration implied by EMU lead to greater specialization and hence vulnerability? By stimulating restructuring and promoting the mobility of factors of production, EMU enhances both economic integration and competitive pressures. It can be argued that this will tend to encourage the concentration of economic activity. This is because, as trade costs fall, agglomeration economies and supply side linkages become more important, and the cost disadvantages of concentration will be limited by factor mobility and factor inflows limit (Krugman and Venables, 1990, 1995, 1996; Krugman, 1991). These effects may be reinforced by a dynamic interaction between agglomeration and R&D. Working in the opposite direction are cost differentials that remain in the EU, together with congestion costs and differences in the cost of non-tradeable services, which will encourage dispersion. Thus, the impact of the single currency on specialization is an empirical question, but the evidence is ambiguous. While providing some support for the variables important to the 'new geography' models, there is no very great evidence of significant agglomeration (Braunerhjelm *et al.*, 2000). Thus, by comparison with the United States, European national economies are perhaps less vulnerable to asymmetric shocks than United States but Europe at present lacks adjustment mechanisms such as labour mobility and cross border capital holdings and flows.

The absence of significant international transfers in the EU means that EMU lacks interregional redistribution as well as stabilization. In reality it is difficult to separate these two elements and in the absence of a specially constructed interregional stabilization mechanism the lack of redistribution also implies the lack of stabilization. Justification for redistribution may be political (the need for some equity in living standards to maintain the solidarity of the nation state) or economic (that efficiency will be enhanced). In EMU it could be argued that the political argument for redistribution is relatively weak. The euro zone is far from a homogeneous area in terms of citizenship, culture and language. The differences in income levels are such that it could be counterproductive to encourage the idea that they should be similar across the area. At the moment there is only limited attachment to a European identity among the citizens of Europe. Within nation states such as Belgium, Italy and Canada it is proving increasingly difficult to maintain existing regional transfers. The failure to agree on even small increases in the EU Budget to finance enlargement indicates an unwillingness among

governments to finance large transfers. The economic case for interregional redistribution is also relatively weak and there are a number of problems with such redistribution. Transfers in the short term would boost income and economic activity in the region but this might lead to higher factor prices blunting productivity gains and innovation necessary for competitiveness. Continuing grants could create a situation of dependency, beset by problems of moral hazard²⁵ and inefficient projects.

Regional stabilization schemes

Is it possible to develop an effective regional stabilization scheme that is politically acceptable? Such a scheme would have to meet certain criteria (Goodhart and Smith, 1993). It should be temporary, being triggered by a fall in economic activity and suspended when the economy stabilizes. Timing is also crucial; the instrument should come into effect when economic activity is weakening. These requirements are extended by the Commission of the EC (1993b: 79–80) – any stabilization should only apply country-specific asymmetric shocks that presents serious economic difficulties. Von Hagen and Hammond (1995) suggest some further requirements: transfers for each country should average zero, payments into the system should therefore equal receipts from it, ideally every year. To be worthwhile the scheme should offset a large part of the relevant shocks.

In practice it is difficult to meet these requirements although there have been two proposed schemes (Italianer and Vanheukelen, 1993; Melitz and Vori, 1993). Unemployment is used to measure shocks in the Italianer and Vanheukelen scheme because data is rapidly available and in a harmonized form. With this scheme it is suggested similar stabilization to the United States can be achieved with an average budget of around 0.2 per cent of GDP. It has been argued (Melitz, 1994) that this unemployment based scheme would provide only very small benefits under rare circumstances. The lagging nature of unemployment as an economic indicator and the arbitrariness of relating changes in unemployment and the size of transfers also argue against its use. The Melitz and Vori scheme aims to provide stabilization via transfers related to deviations of a country's per-capita income level from a national reference value derived from a deterministic trend. They find, however, that shocks among potential EMU members are moderately persistent and positively correlated so that the potential for insurance is small.

What these schemes indicate is that it is very difficult to establish a practical scheme, which will meet the criteria necessary to be acceptable to EU member states. Von Hagen and Hammond (1995) demonstrate that it is possible to devise an effective stabilization scheme with no persistent distributional effects. This scheme is, however, based on an 'intricate econometric procedure' (p. 348) upon which it would difficult to achieve agreement in the EU. The size of contributions and receipts is relatively large particularly for small countries.²⁶ Thus Ireland's maximum benefit is 4.04 per cent of GDP

and maximum contribution 4.39 per cent. Even for the United Kingdom the maximum benefit is 2.45 per cent of GDP and the maximum contribution 2.85 per cent. It is difficult to see member states being prepared to accept these potential commitments under any circumstances let alone under a complex econometric formula. Unfortunately less complex formulations lose the effective properties of the econometric scheme, with transfers becoming permanent and incorrect in size and direction. This is not the case with a smaller core of the original six plus Denmark, indicating that perhaps this is less of a problem with the more convergent EMU that has emerged. Most damning of all 'insurance against asymmetric shocks need not reduce the variability of output and employment over time even it stabilizes fluctuations around a common trend' (Von Hagen and Hammond, 1995: 348). Although this is the result of simulations, and generalizations are not strictly possible, it does suggest that the benefits of interregional insurance scheme for EMU could be relatively small.

Conclusion

The EU Budget as currently constituted is unable to undertake two roles usually assumed by central/federal budgets in monetary unions: stabilization and redistribution. For the present redistribution between member states is probably not that important because the media and public attention continues to focus on the national rather than the EMU/EU level. So it is redistribution between individuals and regions within nations rather than between nation which is crucial for the time being. Paradoxically, the more successful the EU is in fostering an attachment to a European identity, the more problematic this could be. Thus the more the EU comes to resemble a nation state the greater the demands for a budget with redistributive capabilities are likely to become.

There are two aspects to stabilization: first an overall macroeconomic stance for the euro zone compatible with monetary policy; and second stabilization between nation states within the euro zone to offset asymmetric shocks. The evidence does suggest that there is substantial stabilization in macroeconomic activity between regions within nation states, as a result of the activities of federal/central budgets. The EU Budget cannot provide this interregional stabilization but its absence is mitigated by two factors. First, the national as opposed to the EU or regional (sub-national), component in macroeconomic instability is relatively small. Second, member states retain some flexibility to counter national macroeconomic shocks by using national fiscal policy. The EMU system does, therefore, contain sufficient national fiscal adjustment possibilities. The Growth and Stability Pact is the major mechanism EMU has to adjust the overall fiscal stance to achieve compatibility with monetary policy. With monetary used for short run stabilization, the GSP provision provides an appropriate fiscal stance for EMU, with medium-term budgetary balance and the short-term fiscal stance determined by automatic stabilizers.

Attempts at increased co-ordination of fiscal policy would inevitably limit national budgetary autonomy, and thus require a politically unacceptable expansion and reform of the EU Budget to enhance its capacity to achieve regional stabilization. Thus despite their unorthodoxy, the budgetary arrangements for EMU arguably provide a viable system which fulfils the macro-economic functions of a 'normal' federal budget. This is just as well because national stances are such that, for the foreseeable future, EMU is destined to continue in its unique configuration as a monetary union without a fiscal federation.

Notes

- 1 Research arising out of ESRC: One Europe or Several? Programme award no. L213252034.
- 2 The only exception is monetary unions involving a micro-state, e.g. Belgium and Luxembourg.
- 3 The term 'region' is used in this chapter to refer to sub-national units of federal states, e.g. Lander in Germany, but to individual nation states within EMU.
- 4 The suggestion that discretionary fiscal policy does not succeed in stabilizing the economy is, however, controversial: Noord (2000) presents evidence that for the OECD as a whole and the United States in particular there was a significant stabilizing effect from discretionary policy.
- 5 Countries with large deficits and debt would find these rising to unsustainable levels in a recession and may, therefore, have to act counter-cyclically, tightening policy by increasing taxes and/or reducing government expenditure. Thus in the early 1990s, even without the Maastricht convergence requirements, EU countries would have been forced into fiscal consolidation despite the recessionary conditions. This meant that for the euro area as opposed to the OECD a neutral discretionary fiscal policy would have been less volatile than the discretionary policy actually employed (Noord, 2000).
- 6 For example it is difficult for governments to run large surpluses when tax revenues are buoyant.
- 7 Automatic stabilizers are changes in budget deficits, which tend to offset variations in economic activity. Thus, if growth slows the public sector deficit increases; as tax revenue falls and expenditure rises; this adds to demand in the economy reducing the extent of the fall in economic growth.
- 8 This either requires that policy acts without lags or that government forecasting of economic activity is accurate. Another potential benefit of automatic stabilizers is the potential absence of a recognition and implementation lag in their operation.
- 9 These restrictions can take various forms such as: limitations on local taxation or expenditure or balanced budget rules.
- 10 The withholding tax.
- 11 Small deficits and surpluses do emerge but these are not allowed to cumulate.
- 12 Agricultural levies were variable taxes on agricultural imports. Sugar levies are a charge on sugar producers for production in excess of a defined output quota.
- 13 The maximum rate was increased to 1.4 per cent in 1984 and back to 1 per cent in 1992.
- 14 Planned expenditure has to be kept below this level to allow a margin for expenditure overruns.
- 15 Thus from the mid-1990s Ireland has enjoyed exceptional rates of economic growth but still receives substantial structural expenditure from the EU.

- 16 For smaller member states, when combined with the effects of agricultural policy the transfers can be quite large, but this small size of the budget means this cannot be the case for larger states such as Spain.
- 17 Adverse publicity could exact a price, undermining confidence in the government and its debt leading to an interest rate premium. Paradoxically when Ireland was the first country to have recommendation against it, the Irish government sought to use this to their electoral advantage by sticking to their policy in the face of what they claimed was EU intimidation.
- 18 Provided that in the medium term national budgets are in balance or close to surplus, so that the excessive deficit limit is not binding.
- 19 Although it is not negligible Forni and Reichlin (2001) suggest that the relatively small 75 per cent of output variance is explained by global or local factors.
- 20 Via migration and integrated capital markets, see following section.
- 21 Regional permanent income is defined as regional income less future taxes on the region necessary to finance the current public sector deficit.
- 22 The model does not yield significant results when estimated for the United Kingdom and Italy.
- 23 Possibly also asymmetric responses to common shocks.
- 24 It is national economies that are important here because the persistence of large national budgets means that interregional transfers can continue within nation states, albeit constrained by the requirement of the Stability and Growth Pact.
- 25 The adoption of policy actions aimed to continue receipt of transfers rather than facilitate development.
- 26 This is due to the greater effect of asymmetric shocks on such countries.

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Part III

EMU and fiscal federalism

5 Stabilization in EMU

A critical review

Robert Ackrill

Introduction

Despite much advice to the contrary, EMU has started without the European Union having the means to undertake economic stabilization across the euro area. The purpose of this chapter is to question whether this is an important omission. To consider this, we reassess fiscal federalism and draw it together with the principle of subsidiarity. We argue that the traditional fiscal federalism paradigm, developed in the context of a single country, can lead to erroneous policy prescriptions if applied without qualification to the European Union. We agree with the observation that the 'standard model of fiscal federalism is not appropriate for Europe. It relies on a functional specialisation at each level of government, emphasising the provision of local public goods while the main redistributive responses are undertaken by central government' (Hughes and Smith, 1991: 452). We consider a range of theoretical and empirical issues, relevant shock symmetry or asymmetry and examine national stabilization efforts. We conclude that, on balance, there is no compelling evidence to force the European Union to introduce a stabilization scheme at the EU level. Moreover, there is considerable and growing evidence that, so long as flexibility in national fiscal policies is maintained, national budgets can provide sufficient stabilization. Through EMU, continued convergence can help reinforce this conclusion.

Setting up the problem – limitations and terminology

In this first section, we address a small but important point – the language of fiscal federalism. Starting with the following quote from Oates (1972: 14), we see how confused terminology can lead to confused policy prescriptions:

The central government presumably accepts primary responsibility for stabilizing the economy, for achieving the most equitable distribution of income, and for providing certain public goods that influence significantly the welfare of all members of society. Complementing these operations, subcentral governments can supply those public goods that are of primary interest only to the residents of their respective jurisdictions.

(Oates, 1972)

This indicates clearly where the fiscal function of stabilization should be assigned in a single country fiscal federation. 'Central' refers to the national/federal government. When the European Union is considered, however, it is by no means clear that it is appropriate simply to reassign the term 'central' and, crucially, its associated fiscal functions to the European Union. To apply fiscal federalism to the Union, a clearer terminology is required. This chapter uses the term *national* when referring to that level of government. 'Federal' is unhelpful as it refers to a specific form of government and it becomes extremely confusing (and politically loaded) when used in the context of the Union. In addition, lower levels of government (that is, those covering a geographical area within the borders of a country) are referred to as *sub-national* levels of government, whilst the European Union is referred to as the *supra-national* level. The terms 'government' and 'fiscal authority' are, however, used interchangeably, partly because the European Union is not a 'government' in the normal meaning of that term.

To this, we can add an important idea from Forte (1977: 321–22), whereby the 'highest level of government is that where the ultimate tax power lies and thus has the right to enter in any sphere of taxation and public debt which has not yet been given (presumably by itself) to the other levels of government. For public expenditures there may be a similar distinction. The highest government may be allowed to spend where it likes, unless the contrary is specified, while the other may be prevented from doing so.' Within most countries, the 'highest' and 'broadest' levels of government coincide, whereas with the European Union this is not the case. We may describe the Union as the broadest, whereas member states remain the highest for most fiscal functions.

In seeking to extend the fiscal federalism paradigm to include the European Union, there is no definitive formula to help, but we can draw upon the concept of subsidiarity. This has many definitions and is not sufficiently developed to be testable in law, but its essence is captured by defining it as the allocation of government functions to the national level, unless the Union should be the lowest *effective* level of government.¹ It is this idea that will underpin the subsequent discussion. As a footnote to this section, it is noted that Masson (1996) provides the heading 'Is Fiscal Federalism Desirable/Necessary in Europe?' for his discussion of this topic. This serves to emphasise how much EMU is confusing the fiscal federalism debate, as this wording (and Masson is not alone in doing this) implies that it is only fiscal federalism if functions currently assigned to national governments are re-assigned to the European Union. In practice, it is fiscal federalism even if the re-assignment of fiscal functions from the national to supra-national tier is rejected.

Fiscal tiers and the assignment of fiscal functions

Following on from the above discussion on fiscal tiers, this section discusses the role of, and relationship between, each tier. It will, in particular, challenge

the assumption implicit in much that is written on stabilization in EMU, that monetary union means the European Union becoming the highest (in Forte's terms) fiscal tier. Sub-national governments are allocated various fiscal functions, but one common feature of sub-national budgets is the imposition (usually by the national government) of a balanced budget rule requiring revenue and expenditure to be equal each fiscal year. The existing literature (see, *inter alia*, Alesina and Perotti, 1995, 1996; Corsetti and Roubini, 1996; Poterba, 1994, 1996) supports the view that with sub-national governments, this helps prevent a budget deficit. Corsetti and Roubini (1996) find that, in practice, sub-national governments may be allowed to undertake some borrowing, accumulate 'rainy-day' reserves and receive national/federal budget transfers which can act as quasi-automatic stabilisers for those lower-level governments. Poterba (1996) argues that in the United States, those states that reduce spending to keep within short term budget limits also have lower levels of spending in the long run. It is pertinent also to note that the states in the United States have adopted these rules themselves rather than having them imposed from above and that they are 'unique' in this.² By doing this, the greater fiscal discipline (as confirmed by Poterba) allowed the states to maintain the ability 'to borrow in financial markets' (*ibid.*).

If balanced budget rules promote fiscal restraint, why are they not more widely imposed on national budgets? Alesina and Perotti (1996) suggest that whilst balanced budget laws are appropriate for sub-national governments, they are not so for national governments. Specifically, they identify the sub-optimal nature of forcing fiscal policies to respond with increased volatility in order to maintain balance each and every year.³ In particular, it is the stabilization function and the associated fiscal instruments (as discussed below) that create the year-to-year fluctuations that would be compromised by such rules. Thus the national government (usually) not only imposes a balanced budget rule on the sub-national government, it also does not impose the same rule on itself, in part because of the assignment of the stabilization function that causes fluctuations in budget balances.

The EU Budget also operates under a balanced budget rule. Strasser (1992: 57) argues it was the wish of the authors of the Treaty of Rome not 'to offer the Communities, and in particular the Commission, any easy solutions' to the financing of EU activities. Before considering further whether or not stabilization should be re-assigned to the European Union, it is asserted at this point that stabilization will not, for the foreseeable future, be re-assigned. Picking up on one point from Forte noted earlier, this rule is imposed by national governments on the supra-national level just as it is (in most cases) on sub-national governments. In other words, even though the national governments are not the broadest fiscal authority, they continue to be the highest/ultimate authority (and they also retain ultimate political legitimacy). Sub-national governments are typically limited in the range of fiscal functions they are assigned. These limits can be thought of as applying *a fortiori* to a supra-national government, because it is further away from voters.⁴ Within the

European Union the principle of subsidiarity is, moreover, designed to ensure that fiscal and other functions are only assigned to the supra-national level when this is more efficient than assigning the function to national governments (for example, by lowering co-ordination costs, or where there are significant international spillover effects from policies).

There are two further issues related to the unwillingness to re-assign stabilization, the second of which also forms the basis of the argument that, for now, there is arguably no need to re-assign this particular fiscal function. First, ever since the MacDougall Report (EC Commission, 1977) it has been argued that the further re-assignment of fiscal functions to the European Union would require a much larger EU budget. Always looking unlikely, the Agenda 2000 budget agreement reached in Berlin in March 1999 confirmed that, for the period to 2006 at least, the size of the budget as a percentage of EU GNP will remain constant – even though it is anticipated that further enlargement will occur during that time. Unless stabilization was located outside of the main EU Budget, the balanced budget rule and the continuing very tight limits imposed on the EU Budget would be inadequate for effective stabilization. Moreover, the EU member states would be unlikely to provide such a rise in funding when imposing fiscal discipline on the core EU Budget and on themselves, through the Stability and Growth Pact (see below).

The second issue is a factor that is central to the assignment and functioning of stabilization, yet one that is all-too frequently overlooked (though note Italianer and Pisani-Ferry, 1994). The problem with imposing balanced budget rules on national budgets was the constraint they would impose on the functioning of stabilization. This arises fundamentally because of the nature of instruments through which stabilization is effected. Accepting that fiscal instruments will not be used for active demand management (European Commission 1998 argues that a lack of stability in fiscal policy was a major factor in the poor growth and unemployment records of European countries in the early 1990s) and that the ECB will not use monetary instruments in that way (see the ECB Monthly Bulletin of January 1999, p. 42, for confirmation of this), then the primary remaining means by which stabilization will be undertaken is through automatic stabilizers, such as unemployment benefits and direct income taxes.

These instruments share two characteristics: they are very sensitive politically and are therefore assigned to (or, rather, 'retained by') the national fiscal authority. As these fiscal instruments operate through the economic cycle or in response to economic shocks, so the budget balance rises and falls. To try to force the national budget to balance each year could, therefore, act to destabilise the economy if it required the government to undertake pro-cyclical *discretionary* measures to comply with the balanced budget rule, rather than let the budget surplus/deficit rise and fall with the functioning of *non-discretionary* automatic stabilizers. The importance of automatic stabilizers and the potentially counter-productive effects of discretionary fiscal policy is discussed in Andersen and Dogonowski (1999).

It is therefore critically important for fiscal federalism to look not only at where fiscal powers are assigned, but also who determines the assignment of fiscal functions and, crucially in this case, the nature of the instruments through which the particular fiscal function operates. Thus the national governments remain the highest fiscal authority, even though they are no longer the broadest within the European Union. This is particularly important as the Union is governed by the Treaty of Rome, which can only be changed with the unanimous agreement of all member states. When the fiscal instruments in question are as politically sensitive as those central to automatic fiscal stabilization, political considerations play a vital role in determining the re-assignment (or not) of policy. We need, however, to consider whether this is important in economic terms.

A detailed analysis of stabilization in EMU – and the application of fiscal federalism – is problematic for several reasons. Fiscal federalism is a very difficult concept to test empirically *ex ante* and, especially with EMU, might be subject to the Lucas Critique (a problem compounded in the case of Optimum Currency Area criteria by their endogeneity – see below – which also undermines any comparisons made with the United States). Thus in considering the appropriateness of EU stabilization at the current time (and this chapter does not deny the possibility that EU stabilization might one day become a policy imperative), a series of issues are raised which, *when taken together*, suggest to this author that the re-assignment of stabilization is not yet needed, but which also indicate areas where further research could usefully be undertaken to attempt to identify more clearly when the time might be right.

Optimum currency areas, asymmetric shocks and fiscal federalism

This is not the place for a detailed discussion on OCA theory. Even so, there are some issues that need examination in the context of stabilization. The primary focus of OCA theory is identifying which countries are best suited to forming a sustainable currency area (strictly, the term ‘optimum’ is a misnomer), particularly in the face of asymmetric shocks. There is, however, a particular problem encountered in trying to use OCA theory to identify countries suited to forming a currency area. The work of Frankel and Rose (1997, 1998) in particular indicates that OCA criteria are actually endogenous – the act of forming a monetary union will, of itself, lead participating countries to reflect more closely the criteria that OCA theory highlights (see also Fontagné and Freudenberg (1999) on how shocks may well become more symmetric with integration). In addition to creating difficulties in predicting the future for EMU, it also provides one reason (others are discussed later) why it is problematic to make a comparison between EMU and the monetary union that is the United States, since the latter has been a monetary union for many decades and will inevitably come closer to satisfying the OCA criteria than one only just formed.

Labour mobility is a central element in OCA theory. The starting point is the work of Mundell (1961), who saw labour mobility as one alternative shock absorbing mechanism to accommodate asymmetric shocks in the absence of flexible nominal exchange rate. Three questions arise on labour mobility. The first is how mobile does labour have to be in order to be considered 'mobile' rather than 'immobile'? The second is what sort of mobility is being referred to – geographical, occupational, mobility into and out of the labour market? This will be returned to shortly, in using the examples of the United States and European Union to identify when different types of mobility might be relevant.

The third question is – is this even what Mundell said? Intuitively it seems strange to put so much emphasis on a variable that is so hard to pin down (note the first question above). A closer reading of Mundell's argument, however, reveals an argument that does make sense. OCA theory seeks to distinguish between countries that are suited to sharing a currency and those that are not – that is, distinguishing between insiders and outsiders. Mundell therefore argues (p. 661) that the key issue is the difference between interregional and intraregional labour mobility (although he does not use those terms), thus implicitly referring to geographical mobility (but see also below).

This implies that, for example, if labour mobility is low between France and the United Kingdom, but is also low within those countries then, on the basis that both France and the United Kingdom are sustainable currency areas, so would the United Kingdom and France be able to form a sustainable currency area, *ceteris paribus*. In short, Mundell's argument does not preclude a monetary union between countries if labour mobility is not very high within or between each other, but does raise doubts if interregional mobility is significantly lower than intraregional mobility. Data on labour mobility is scarce, but it appears that whilst between-country mobility is low, so too is within-country mobility. Eurostat figures indicate that both types of geographical labour mobility were less than 1 per cent in 1992 with regard to the European Union. Spain had very low internal mobility (about 0.5 per cent), Germany had the highest (1.5 per cent), perhaps as a continuing result of unification, with the United Kingdom in between (just over 1 per cent). The average was about 0.9 per cent. This compares with immigration into the European Union of about 0.67 per cent and mobility between countries of about 0.5 per cent (that is, about the same as internal mobility in Spain, which is a sustainable currency area). This contrasts with interregional mobility within the United States of 2–3 per cent.⁵

It is the case, moreover, that there are different types of mobility. The Mundell argument clearly refers to geographical mobility. On what basis, however, might occupational mobility or even mobility into and out of the labour force be relevant? In order to consider this, we need to examine a particular feature that distinguishes the US economy from that of the EU: the extent to which each economy is based on inter-industry or intra-industry specialization. There are two stages to this argument. First we compare inter-

industry and intra-industry specialization as traditionally defined. The implication of this is simply that if an economy is based on inter-industry lines, an industry-specific shock will also be a region-specific shock. In contrast, with intra-industry specialization, not only will an industry-specific shock have a smaller impact on a particular region, the impact will also be more symmetric in its impact across different regions. Given this distinction, the conclusion follows that geographical labour mobility might *need* to be higher if the basis of specialization is more along inter-industry lines (as in the United States compared with the European Union), because regardless of whether the shock is primarily region- or industry-specific in its origins, it will have a regional impact.⁶ In the European Union, moreover, mobility into and out of the labour market appears to be more important than in the United States (see Decressin and Fatás, 1995). Note also that if mobility is along occupational lines, then flexibility through re-training may be of critical importance to the European Union. In the meantime, shocks that bring about symmetric rises in unemployment might still threaten national budgets (but see below for more on this).

A second stage in this argument comes with recent developments in the theory of intra-industry specialization (see, *inter alia*, Greenaway *et al.*, 1995, 1999; Fontagné *et al.*, 1998, Fontagné and Freudenberg, 1999). The distinction is now drawn between vertical and horizontal intra-industry trade, where the latter conforms to 'traditional' intra-industry trade, whereas the former implies specialization based on quality. Thus if intra-industry specialization is horizontal in nature, the preceding argument applies. If specialization is along vertical lines, however, the issues are not so clear. Moreover, there is growing evidence that much intra-industry trade in the European Union is vertical. If industries are analysed at low levels of disaggregation, the differences between vertical and horizontal are minimal. If, however, extremely high levels of disaggregation are used, it is possible to argue that vertical intra-industry specialization is, *de facto*, akin to inter-industry specialization, with attendant consequences for shock asymmetries.

Overall, however, this whole area is one where further research is required. If there is substantial (horizontal) intra-industry specialization, is occupational mobility (or mobility into and out of the labour market) an adequate substitute for geographical labour mobility? Given the growing evidence of the importance of vertical intra-industry specialization, what implications does this have for the analysis of the impact of shocks? Does it mean that *any* shock will have an asymmetric impact, or is it the case that only highly specific shocks, affecting narrowly defined, quality-differentiated sub-sections of industries will have asymmetric effects under vertical intra-industry specialization? This is a critical question to answer in order to understand whether or not industry-specific shocks will have asymmetric effects under vertical intra-industry specialization.

A separate issue, also important to the EMU debate, is how the nature of specialization will change over time. Greater integration can, in theory, push

an economy either towards greater regional specialization (as argued by Paul Krugman), or towards greater similarity between regions (as Paul de Grauwe argues is evidenced in the European Union by empirical studies).⁷ Indeed, it is possible to suggest that since low labour mobility does not favour greater industrial concentration,⁸ the Krugman view is less likely to prevail in the European Union precisely because the geographical mobility of labour is relatively low.

Thus, on the question of shock asymmetries, first there is much evidence that indicates shocks in the European Union are not only likely to be more symmetric than, say, in the United States, but that symmetry with growth *because* of EMU. Second, the issue of labour mobility is complex and it is suggested that, when comparisons with the United States are made, it is the case that, to a degree, different types of mobility are at work in the different labour markets. These points even question the extent to which fiscal stabilization in EMU needs to be as great as that required by the United States. Uncertainties remain over the degree to which industry-specific shocks can be so specific as to affect different qualities of product. To quote Fontagné and Freudenberg (1999: 281), the distinction between vertical and horizontal intra-industry trade

is not likely to alter deeply our general message. In total, the share of trade flows associated with symmetry in shocks will increase: the monetary union will endogenously create the conditions of its success. Thus, the empirical evidence of structural asymmetries between core and periphery countries no longer justifies fears of cumulative divergence between members, within the EMU.

(Fontagné and Freudenberg, 1999)

Stabilization – can national budgets do it all?

Automatic stabilization will remain in the hands of national governments since, as indicated earlier, the relevant fiscal instruments will remain there. As several authors indicate, however (see, *inter alia*, Italianer and Pisani-Ferry, 1994; Fatás, 1998), the act of stabilization when different regions' incomes move imperfectly together is likely to have a longer term impact on the overall budget balance. When this is made up in terms of higher taxes or lower expenditures, the impact of the stabilization is reduced. Thus it is that some authors argue that the stabilization capacity of national budgets is lower than some authors estimate. We follow the terminology of Fatás (1998) and distinguish between inter-temporal transfers and interregional transfers (or 'insurance').

This distinction is important for two reasons. First, it qualifies the capacity of national budgets to undertake stabilization, as estimated by the several authors who do not allow for this distinction and thus over-estimate stabilization

capacity. Thus, for example, Sachs and Sala-i-Martin (1992) and Bayoumi and Masson (1995) estimate the US budget stabilizes about 30 per cent of the impact of a shock whereas, for example, Fatás puts the figure at about 10 per cent. Second, this is crucial to the present argument, in that inter-temporal transfers remain with the member states through the functioning of national budgets (subject to a limit imposed on the overall budget balance – see the next section), whereas substantial interregional transfers could require an EU-level transfer system.

In estimating the stabilizing impact of budgets within the EU, the same methodological caveat applies, but one result broadly consistent within most studies is that the stabilizing capacity of national European budgets is comparable to that of the United States (and typically higher than in Canada). Given the distinction between inter-temporal and interregional transfers, however, this is only significant insofar as it indicates that one element of stabilization is comparable as between the European Union and mature, sustainable currency areas. If, however, there is found to be a fundamental need for interregional insurance within EMU, then the argument for some form of supra-national transfers is strengthened.

Considering two studies that examine this particular point, both Fatás (1998) and Forni and Reichlin (2001) argue that the greater the degree of integration, the less there is to be gained by introducing an EU system of insurance, because of greater symmetry in the movement of incomes (Fatás: 166–7) or output (Forni and Reichlin: 124–5). The key point these authors make is that the evidence indicates a clear movement towards greater integration and, therefore, a reduction over time in the benefits to be had from introducing an EU system of insurance. This finding is reinforced by the earlier discussion on the endogeneity of OCA criteria.

As for the estimates regarding interregional insurance, in addition to the general points already noted, it is estimated by Fatás that in the United States, of the overall stabilizing consequence of fiscal transfers, only about one third represents interregional insurance (1998: 177). He goes on to examine the contribution both national and European systems could provide on insurance. He finds that, on average, national systems can provide over 50 per cent of that provided by a European system, although (as with the US system), there are regional variations. With its higher volatility, Spain is one country that could potentially gain more from a European system of insurance. A detailed case study of Italy and Germany shows that convergence over time reduces the benefits to be had from a European system of insurance, so that for 1979 to 1994, national budgets provide nearly 70 per cent of the insurance provided by an EU system (as compared with 40 per cent for 1961 to 1979).

This suggests that, even allowing for the distinction between inter-temporal and interregional transfers, the benefits to be gained by adding a supra-national stabilizing element to the existing fiscal functions would not be that great. The work of Fatás, even with data ending in 1994, finds that the gains to be had by introducing this additional component ‘is modest’ (p. 192).

The debate on EMU has emphasized so much the need for the extensive re-assignment of fiscal functions to the EU. This work has the dramatic conclusion that with the greater convergence achieved through greater monetary policy co-ordination, the need for a supra-national stabilizing function actually falls. For this to work, however, national fiscal flexibility must be retained. This is the theme of the following section.

As a footnote to this analysis, it is interesting to note that Bayoumi and Masson state (page 267) that ‘stabilization of cyclical movements in income across EC states can be carried out at the national level.’ They also observe (p. 269), that the institutional structure of a country is important in determining the size of federal fiscal flows, to the point that ‘neither the United States nor Canada provides a “blueprint” for the EC’. As noted below, however, although EMU does not have a single fiscal policy to accompany the single monetary policy, it does have a mechanism for co-ordinating national fiscal policies. This conforms with one of the observations of Allsopp, Davies and Vines (1995: 141), who argue that whilst ‘the design of fiscal policy would need to be co-ordinated . . . it could be locally implemented.’ A further point of interest comes from Bayoumi and Masson. They argue that low labour mobility enhances the effectiveness of national stabilization policies and that, moreover, inter-country labour mobility is currently sufficiently low to ensure that such policies are effective. Furthermore, there is a growing body of evidence that suggests regions across borders in the European Union are becoming more similar, whereas regions within borders are becoming less similar (see Fontagné and Freudenberg, 1999: 268–9, for a review. See also, *inter alia*, Fatás, 1998; Forni and Reichlin, 2001). Whilst this serves to limit the extent of cross-border stabilization needed because of EMU, it might require greater national action in future (again, see below).

Stabilization and the Stability and Growth Pact

One unusual feature of EMU is that monetary policy is assigned to the supra-national ECB, whereas most fiscal policies are still assigned to national governments. Much of the foregoing discussion has indicated that, of itself, this is not necessarily a problem. What many argue, however, is that some kind of control is still needed in order to ensure national fiscal policies are compatible with the anti-inflationary stance of the ECB – that is, that the anti-inflation credibility of this fledgling institution is supported rather than compromised by national fiscal policies (see, *inter alia*, Artis and Winckler, 1998, 1999; Buti *et al.*, 1998). It is on this basis that the Stability and Growth Pact is justified. This allows countries to retain control over national fiscal policy instruments, subject to a limit on the overall deficit (other than in a deep recession or in the event of a natural disaster). Member states must ensure their average budget is about in balance over the medium term to ensure that in times of economic downturn the deficit does not rise above 3 per cent (though see Artis and Buti, 2000 for a more detailed analysis).

Although this limit restricts discretionary fiscal policy, of particular concern is whether or not the functioning of automatic stabilizers will also be restricted (see, *inter alia*, Artis and Winckler, 1999; Eichengreen, 1997; Buti *et al.*, 1997). If the deficit is too large, or the depth of recession not great enough to exempt the country from the financial penalty, the fiscal policy response from the country in question might need to be pro-cyclical in order to avoid a financial penalty.⁹ The Stability and Growth Pact might therefore generate instability if a government is forced to undertake such discretionary fiscal action, neutralizing the benefits from the operation of non-discretionary automatic stabilizers.¹⁰

The idea of a budget in balance over the medium term is not merely a convenient benchmark. Masson (1996) and Thygesen (1999) are but two authors who present evidence suggesting that, other than in extreme conditions (when the exemption may well not apply anyway), this general rule of budgetary balance leaves sufficient leeway for automatic stabilizers to function normally and without restraint. As Thygesen observes, this would allow for a 'substantial role for national budgetary policies in macroeconomic stabilization' (p. 29). An alternative approach to ensuring flexibility under the Stability and Growth Pact is to remove certain elements of expenditure from the constraint. One possibility is to exclude public investment (see Eichengreen, 1997). This policy, as pursued by the United Kingdom, has received criticism not only from the Commission, but also from the International Monetary Fund, who argue that it risks failing to control spending adequately. Another suggestion from Eichengreen (1997: 95) is to adjust the excessive deficit procedure so it applies to 'the constant-employment budget deficit'. Overall, however, there seems plenty of evidence to support the claim that, so long as average budgets are roughly in balance, the concerns over the Stability and Growth Pact inhibiting automatic stabilisers will not be realized. On the other hand, for as long as the budget limit applies to the overall balance and that balance is in deficit, public investment might be squeezed. The need for countries to continue to pursue sound fiscal policies once in EMU remains.¹¹ Indeed, Eurostat data indicate that, in 2000, the total euro area budget was marginally in surplus. Even so, five countries still had deficits, although in all cases the figures were better than in the preceding three years.

Conclusion

The existing literature on fiscal federalism has developed in the context of studying national economies and the fiscal relationships between national and sub-national levels of government. In the context of the European Union and supranational fiscal authority, however, this traditional paradigm is not only inadequate but confused, leading to a lack of clarity in the debate on fiscal federalism in EMU. In identifying clearly subnational, national and supra-national levels of fiscal authority, this chapter has allowed for distinctions and

similarities to be drawn between each. This has proved important in highlighting flaws in the assumption that EMU will see the Union supersede national governments as the 'highest' fiscal authority. Fiscal federalism needs to be able to incorporate supra-national authority effectively. It is argued that subsidiarity allows this to be done in a clear manner for the European Union and, moreover, that the conclusion that stabilization does not yet need to be re-assigned to the European level is consistent with the principles of fiscal federalism. It is also argued that fiscal federalism needs to be clearer in studying not just which fiscal functions are to be allocated between different levels of government, but also which fiscal instruments are involved since these are, ultimately, the tools that will be re-assigned should the European Union ever be given a stabilization role.

Such stabilization as will occur in EMU will predominantly be through national automatic stabilization instruments. Evidence indicates that current stabilization efforts through national budgets compare favourably with the stabilization achieved by the federal budgets of the United States and Canada, both clearly sustainable currency areas. Moreover, there is considerable weight of argument that suggests membership of EMU will enhance economic convergence. This will mean less of a burden being placed on national fiscal policies for autonomous stabilization in EMU than previously as shocks become more symmetric. The distinction between stabilization and insurance reinforces this conclusion, with studies suggesting that national budgets can provide stabilization, whilst the benefits to be gained by the European Union from introducing a supra-national insurance system are currently small. Put another way, the lack of EU insurance does not threaten EMU. There is also concern that the design of the Stability Pact will impair the freedom of national automatic stabilisers to operate. The evidence, however, points to this threat only becoming a reality if countries fail to continue the current trend of improving fiscal balances and, moreover, if they sustain large deficits over a substantial period of time. It has not been the intention of this chapter to argue that supra-national stabilization will never be needed but, rather, to present a series of arguments that suggest, when combined with considerations both of fiscal federalism and subsidiarity, that such re-assignment is not yet needed.

Notes

- 1 Throughout this chapter, subsidiarity is given an economic context by considering 'effective' in terms of economic objectives and outcomes.
- 2 Thygesen (1999: 22).
- 3 They note elsewhere (Alesina and Perotti, 1995) that a balanced budget rule would be optimal if government spending were constant throughout the budget planning horizon.
- 4 Currently 80–90 per cent of EU spending is on redistribution (predominantly under the agricultural and regional policies), with a small amount on allocation (principally an evolving research policy).

- 5 See, *inter alia*, Gros and Thygesen (1998: 285–7) for discussion of the European Union. The US figure is from the *Financial Times*, 29 January 2001, as is that for intra-EU mobility.
- 6 Note that this distinction would be less important if region-specific shocks were the more common. Bini-Smaghi and Vori (1993) and Lee and Shields (1997) suggest that in the European Union, industry-specific shocks are more prevalent.
- 7 See de Grauwe (2000: chapters 2 and 4) for more details.
- 8 See Gros and Thygesen (1998: 286–7).
- 9 Andersen and Dogonowski (1999) examine much historical evidence for rising budget deficits and find that a number exceeds 3 per cent. They fail, however, to indicate whether these were matched by sufficiently large falls in GDP to render the Stability Pact penalty inoperative.
- 10 Another aspect of the Stability and Growth Pact is that a budget actually has to exceed 3 per cent for nearly a year before a deposit is required and many more months before the deposit is turned into a fine. Thus the deficit has to be both particularly large and long-lasting for the penalty system to come into force.
- 11 Arguably the need for fiscal flexibility is even greater in EMU with the final sacrifice of autonomous monetary policy (see Masson (1996) for a summary of the main issues), although it is possible that continued action to liberalize labour markets in member states can also help to compensate for the loss of local monetary policy flexibility. It is beyond the scope of this chapter to pursue this issue further.

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6 Fiscal and monetary policies

Edward M. Gramlich and Paul R. Wood

Introduction

Fiscal federalism has been an important economic topic for many years now. The usual analysis of fiscal federalism has considered various expenditures and taxes, asking which expenditure and tax programmes should be carried out by what level of government. However, the more fundamental question regarding the shape of the nation, or federation, is typically not asked.

European economic integration raises this interesting and fundamental question. Depending on whether one is looking at the European Union (EU) or the euro area, either fifteen or twelve viable economic states have come together and formed a new union, certainly the most significant such union in modern economic history. Instead of dealing with the assignment of spending and taxing programmes between various levels of government, the Europeans are now considering situations where national governments are giving up some authority to the newly-formed overall confederation. Analysing such an important change greatly enriches the study of federalism. Now questions involving the power that is given up, how it is managed at the new central level, and what other accommodations are to be made, are all in play.

In this chapter we examine European economic integration in light of standard thinking about federalism. We first describe the main features of European integration, analysing how these institutions fit the main prescriptions of a federal system. On some issues the Europeans have already developed reasonably satisfactory arrangements, on others they have a way to go, and on still others their unique historical path may suggest some interesting new departures in the federalism literature. We then try to extract some lessons from this analysis: some recommendations for Europe based on the orthodox principles of fiscal federalism, and some modifications of these orthodox principles based on the European experience.

Institutional description

In contrast to the mature federations contemplated in the standard theory of fiscal federalism, the European Union is not a federation but a confederation of fifteen national governments. The EU central government is small and derives

most of its authority indirectly through the national governments rather than through direct elections. The directly elected European Parliament has a very limited role in governing the Union. The principal power of the Union's government rests with the Council of the European Union (the Council), which is not directly elected but consists of one representative at the ministerial level from each member government. The European Commission (the Commission) is the executive organ of the Union, advising the Council and implementing its directives.

Given this structure, the European Union features a relatively restricted role for the central authority. Among policies that are determined centrally, monetary policy is probably the most important. That is set by the European System of Central Banks. Only twelve of the fifteen Union member states are part of the euro common currency area. The eventual goal is to include all fifteen Union member states in the euro area, as well as to include new EU members as soon as practical after their accession. Denmark's rejection of the euro, for example, may call into question this timeframe.

The Maastricht Treaty set conditions for the adoption of the common currency by member countries. Inflation rates and long-term interest rates were required to converge toward the average rates in the three best-performing member countries. National governments were also required to bring budget deficits and debt down to acceptable levels, or to show that they were making significant progress toward achieving those goals. The fiscal requirements stemmed from a concern that, under monetary union, the fiscal policy of one country would have an impact on other countries. First, there was a fear that large budget deficits and debts in one country would drive up interest rates for other countries within the monetary union. Second, large fiscal deficits for the area as a whole could undermine the credibility of the new Central Bank, to the extent that monetary policy might be needed to accommodate overly loose fiscal policy. Finally, there was a concern that market participants might assume that the European Union would bail out a country in severe financial difficulties.

The Stability and Growth Pact (SGP) was adopted in 1997 to ensure that fiscal discipline would be a continuing part of Economic and Monetary Union (EMU). Under the SGP, each country in the euro area must submit a stability programme, while each country in the broader EU must submit a convergence programme. These programmes give targets over the medium term (typically the next four years) for the budget balance and debt. The Commission reviews each programme and makes a recommendation to the Council, which then delivers an opinion on each programme and can ask a member country to alter its targets.

The Council and the Commission monitor the implementation of the stability programmes to ensure that member country governments do not diverge significantly from the stated targets. Because the budget balance targets are not set in cyclically-adjusted (or structural) terms, a significant worsening of economic performance and tax revenues relative to that assumed

in the programme can force a national government to tighten its fiscal stance in order to meet the programme objectives. Partly in response to that possibility, the economic assumptions embedded in the stability programmes tend to be on the conservative side. That presents a problem of a different sort. If economic performance is stronger than assumed, a national government can ease its fiscal stance and still meet its stated objectives. In both scenarios, the focus on budget balance targets can create incentives for pro-cyclical fiscal policy.

Spending policies

The theory of fiscal federalism concludes that, in the absence of significant externalities or economies of scale, spending programmes should be carried out at the lowest level of government possible. In this way spending programmes can respond to local concerns and conditions and take account of regional taste differences. But because factors of production are typically mobile across state borders, taxation programmes should be conducted at the highest level of government possible, to cut down on tax competition between local authorities that could lead to sub-optimal levels of service provision. The difference between high local expenditures and low local taxes, and low central expenditures and high central taxes, is to be made up by central government grants to local governments.

Largely for historical reasons, the European Union appears to fit this prescription on the spending side, though not on the tax or grant side. The EU budget is very small relative to that of central government budgets in the fifteen member states and in other Organization for Economic Cooperation and Development (OECD) countries. EU central government outlays were restricted by agreement to only 1.27 per cent of EU GDP for the 2000–06 period, and the Union also has very little discretion over this spending.

The largest single central spending programme is in connection with the Common Agricultural Policy, a programme designed to stabilize and support farm incomes. Another type of EU spending is aimed at facilitating the growth of a single market and helping poorer regions that are left behind. To that end, there are several funds that are collectively called the Structural and Cohesion Funds. These funds are used to develop infrastructure and promote adjustment in regions that are lagging in development or that are facing structural difficulties. These funds are not primarily geared towards redistribution as such, and their small size prevents them from doing much to address economic inequalities, within or across countries. These funds also do not play any role in stabilizing against asymmetric spending shocks, a topic we discuss below.

The European Union does not have spending programmes in many of the areas that would normally be contemplated for the central government in longer-standing federations. The Union does not provide for such standard central services as national defence, foreign aid, or inter-country highways. There has been some move to give the Union a greater role in co-ordinating

defence and foreign policy, including a suggestion by the French foreign minister that Europe may someday need a single nuclear authority to speak for the Union as a whole in negotiations with other nuclear powers. This is one straw in the wind that suggests that the central government's role in providing standard national goods may gradually increase over time.

In addition, the European Union might develop a larger role over time in the redistribution of income among EU countries. But rather than giving the EU government a greater share of revenues, or permitting it to levy its own taxes, the Union may devise a revenue sharing system with its member national governments, similar to that now used within Germany.

If the European Union begins to provide more services that are currently funded by national governments, and if it acquires the revenue sources to provide these services, the importance of the present national governments may recede over time. Under orthodox canons of fiscal federalism, services such as primary education, police and fire protection, and local roads, now provided by local governments, should probably stay that way. Services such as national defence and inter-country highways should probably gravitate to the centralized level. This may leave a vacuum at the present national level. It has long been predicted, so far not accurately, that the same vacuum would develop for American states.

One additional area where the European Union, even though new, does follow orthodox canons of federalism involves policies related to competition. To nurture an evolving single market, the Commission sets competition policy. The goal of that policy is to guarantee that firms can compete on a level playing field throughout the Union. Competition policy also strives to avoid monopolization of markets. Firms are prohibited from making agreements that restrict competition or from abusing a dominant position in a market. The Commission rules on proposed mergers to ensure that they do not impede competition and to decide whether they are compatible with the Single Market. The Commission also aims to prevent member countries from aiding firms in a way that would distort competition.

Taxation and grants

While the theory of federalism suggests that much taxation authority should be lodged with the central government, the historical development of the European Union did not follow that pattern. Member national states were reluctant to surrender too much taxing power to the new confederation. To reduce tax competition, then, the European Union has taken the alternative approach of trying to harmonize or to co-ordinate different national taxation systems. The logic is that as far as tax competition goes, the important issue is relative tax rates, not which government actually collects the revenue.

In the European Union model, there is in principle limited tax competition and little need for central government grants. Those who fear the rise of government would see at least two advantages in the European model:

- rather than spending most of their time lobbying for grants, member country politicians should actually be managing their budgets;
- to the extent that union power or other forces tend to raise government spending beyond the optimal level, any residual tax competition that follows incomplete standardization will offset the pro-spending distortions.

As for particular taxes, the theory of fiscal federalism provides some guidance about which taxes should be harmonized and which not. Theory suggests that taxes on mobile factors should be harmonized, while taxes on immobile factors need not be. That implies that taxes on mobile capital, including corporate taxes, should be harmonized but that taxes on labour need not be, at least to the same degree. The Value Added Tax (VAT) would fall into the category of taxes on mobile factors, because purchasers can move across the border to make some purchases.

Table 6.1 shows, for each of the EU countries, effective tax rates on labour, capital and consumption, as well as standard VAT rates. These effective tax rates (from the European Commission) allow us to separate the incidence of the tax burden falling on each factor. Effective tax rates come from dividing the broad categories of tax revenues by the corresponding tax bases: labour income, capital income, and consumption expenditure. As can be seen from the table, consistent with the idea that less mobile factors would be more heavily taxed in the absence of complete tax co-ordination, the average tax rate on labour income is greater than that on capital or on consumption. In

Table 6.1 Tax rates in EU countries

| | <i>Effective tax rate on labour</i> | <i>Effective tax rate on capital</i> | <i>Effective tax rate on consumption</i> | <i>Standard VAT rate</i> |
|--------------------------|-------------------------------------|--------------------------------------|--|--------------------------|
| Austria | 40.6 | 18.8 | 23.4 | 20.0 |
| Belgium | 44.8 | 23.7 | 20.5 | 21.0 |
| Finland | 43.3 | 24.1 | 24.5 | 22.0 |
| France | 42.4 | 22.6 | 24.5 | 19.6 |
| Germany | 44.0 | 15.9 | 17.9 | 16.0 |
| Ireland | 24.2 | 20.8 | 24.8 | 21.0 |
| Italy | 35.8 | 26.2 | 22.9 | 20.0 |
| Luxembourg | 31.0 | 34.0 | 25.7 | 15.0 |
| The Netherlands | 36.9 | 25.1 | 19.5 | 17.5 |
| Portugal | 27.8 | 24.6 | 22.7 | 17.0 |
| Spain | 29.9 | 18.5 | 17.7 | 16.0 |
| Denmark | 44.5 | 28.0 | 30.5 | 25.0 |
| Greece | 29.3 | 19.5 | 20.0 | 18.0 |
| United Kingdom | 25.2 | 35.1 | 18.2 | 17.5 |
| Sweden | 51.3 | 27.9 | 28.0 | 25.0 |
| Average | 36.7 | 24.3 | 22.7 | 19.4 |
| Standard Deviation | 8.1 | 5.3 | 3.7 | 3.0 |
| Coefficient of variation | 22.1% | 21.6% | 16.1% | 15.4% |

Source: European Commission, May 2000.

addition, the standard deviation of effective labour tax rates among EU countries is greater than that for capital tax rates, although the difference is only slight when measured by the coefficient of variation.

As shown by both the standard deviation and the coefficient of variation, consumption tax rates (and specifically VAT rates) appear more closely aligned among EU countries than are tax rates on labour and capital. Consumption is intermediate between labour and capital in terms of mobility. While cross-border shopping can occur in response to significant differences in tax rates, it does not occur to the same extent as cross-border movements of capital. Thus the smaller variation in consumption tax rates than capital tax rates across EU countries may owe less to the mobility of consumption than to efforts by the Commission to co-ordinate tax policies with respect to consumption. The Commission has proposed minimum standard rates for the VAT and has encouraged a reduction in the number of items that are taxed at reduced VAT rates.

Capital is mobile enough for tax competition and tax evasion to be serious worries, leading to a presumptive role for the Union in harmonizing capital income tax rates and tax withholding policies. There is a concern that investment will flow to countries with low tax rates, or that taxpayers may escape taxation altogether by investing in a country that does not report the income to the country in which the taxpayer resides. The best solution to this problem is to have full centralization of taxes on mobile factors. The next best is to have full information-sharing among EU countries. The third best is withholding at the source of investment income to reduce the incentive to evade taxes.

There is less labour mobility in Europe than in other countries with a federal structure – the United States, Canada, and Australia. Low labour mobility allows European governments to set labour income taxes and unemployment benefits more freely than would otherwise be the case. But labour mobility, at least among the EU countries, will probably increase over time, making a centralized set of tax rates on labour income potentially more desirable in the future.

The greater mobility of capital than labour has tended to shift EU taxation away from capital and towards labour, as would be predicted by most economic theories. As long as capital is fully mobile, within the European Union and indeed outside of its borders, its income cannot be taxed very heavily by any country. Hence this tax shift is fundamentally a result of factor mobility, not of European economic integration or harmonization policies. It would be likely in any federation.

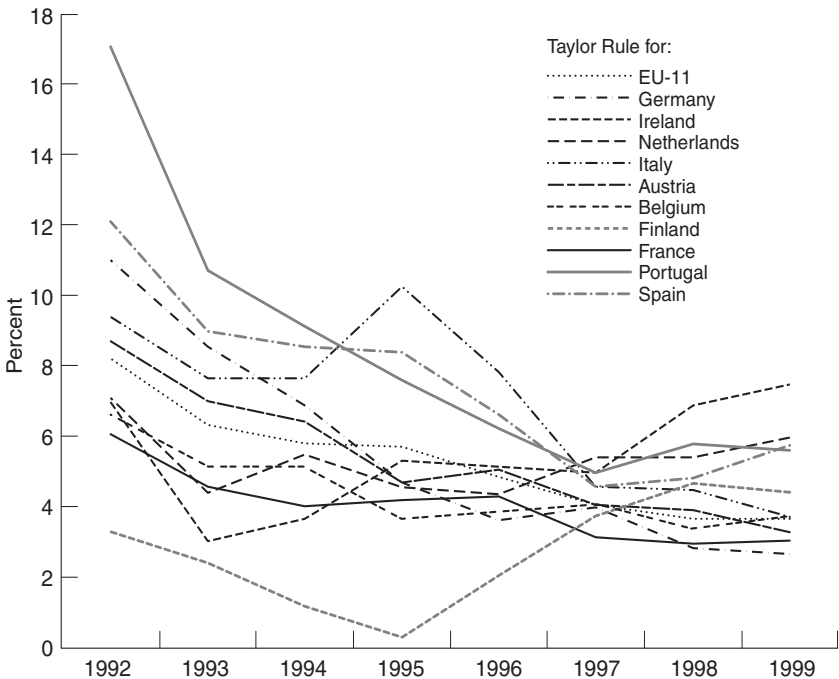
Fiscal policy

Most discussions of fiscal federalism consider spending and tax programmes and end there. The usual thinking is that stabilization policies, monetary and fiscal policy, are best left to the central authority. But that thinking ignores

the fact that macroeconomic shocks could be regional, affecting some parts of the federation differently than other parts. If the federation has a common monetary policy, the logical way to deal with differential shocks is through differential fiscal policy.

This is precisely the issue that now confronts the European Union. There are clearly differential shocks. These may be less important over time in the EU countries, as they integrate and perhaps become similar economies. But the EU countries will never be producing exactly the same goods, and indeed integration may also increase specialization. For practical purposes, there should at least be planning for a fiscal response to differential shocks.

The following chart provides an illustration of how stabilization needs may vary across member countries at any given point in time. The chart shows, for ten of the euro zone countries, short-term interest rates implied by a simple Taylor rule that puts equal weights on output gaps (measured by the OECD) and the excess of core inflation over the implicit target rate, which we have assumed to be $1\frac{1}{2}$ per cent. The equilibrium real interest rate is assumed to be $3\frac{1}{4}$ per cent, which is approximately equal to the twenty-year average for Germany. It is notable that considerable convergence among implied Taylor-rule interest rates has taken place among EMU countries since the Maastricht



*Based on simple Taylor Rule with weight of 1/2 each on the output gap and the excess of inflation over 1.5 percent.

Figure 6.1 Taylor Rule short-term interest rates.

treaty was signed. However, the chart shows a significant difference even in the most recent year between the Taylor-rule interest rates of the countries most (Ireland) and least (Germany) in need of restraint.

In principle one can think of several potential natural adjustment mechanisms for differential shocks. Relative prices can change, factors of production can migrate, there can be monetary transfers between regions, or fiscal policies can be different. In the European Union, most of the natural adjustment mechanisms seem to be unimportant: relative prices are sluggish, labour mobility is limited, and regional transfers are minimal. This leaves differential fiscal policy as the main means of adjusting for differential shocks.

The small size of the EU Budget implies, at least for now, that differential EU fiscal policy will not play a large role in fiscal stabilization. Since national governments will control their much larger budgets, they could in principle act differentially. Those countries with excess demand pressure could tighten fiscal policy and those countries with deficient demand could ease. There is no constitutional bar to such an assumption of stabilizing fiscal policy responsibilities by the component national governments. Unlike state governments in the United States, these national governments do not have constitutional constraints on their ability to borrow, and indeed have been borrowing on world capital markets for years.

But there are nevertheless some barriers to having the component states conduct differential fiscal policy. As said above, the small size of the EU Budget implies there can be no EU-wide tax-transfer system for risk-sharing. There is no automatic response to shocks that hit some parts of the European Union more than others, and no centralized income tax that will automatically absorb less from countries that are in recession and more from countries that are booming. Nor is there a centralized unemployment insurance scheme that could provide differential help to those countries with relatively high unemployment.

Given the resistance of the EU countries toward an EU-wide income tax, Goodhart and Smith (1993) have put forward a proposal for an insurance mechanism that would allow for stabilization against temporary differential shocks. Their proposal would involve temporary additional fiscal contributions from countries that are experiencing booms and additional disbursements to countries in recession, with little long-term redistribution of income between countries. In contrast to a central income tax, such a system would not protect against permanent shocks, and there would seem to be serious definitional problems regarding whether a country is in recession (hence qualifying for outside assistance) or in a boom (having an obligation to give outside assistance).

The Maastricht Treaty is an even more serious bar. To protect fiscal integrity, Maastricht required the member states of the European Union to reduce deficits to 3 per cent of GDP and public debt ratios to 60 per cent of GDP. At the time, few of the states were close to these targets, and all have taken significant restrictive actions to come into compliance. Moreover, the Commission critiques the medium-term plans for fiscal deficits under the

Stability and Growth Pact. Until now, the emphasis has been definitely on bringing states into compliance with these targets.

Provisions in the Stability and Growth Pact allow a country to have a temporary deficit above the 3 per cent ceiling without sanction if the country's GDP declines by at least 2 per cent in the relevant year. In addition, the Council is allowed to grant an exception if a country's GDP declines by from 0.75 to 2 per cent in the relevant year. Even so, the joint supervision of fiscal policies based on actual budget balances tends to create incentives for national governments to tighten fiscal policy when a slowdown reduces revenues.

Given this past emphasis, there seems to be no problem with counter-cyclical fiscal policy in response to booming demand. Countries could simply tighten their fiscal policy and move further away from their Maastricht limits, with the Commission unlikely to object. The serious problem is on the other side: What happens if a country sees a recession coming and tries to ease fiscal policy differentially?

It could accomplish such expansionary fiscal policy in at least three ways. One, not satisfactory to anybody, is for the recession to be so serious that the escape clauses are invoked. Second, the country could apply for a waiver to deviate from the targets it has set. A third, by far the most preferred in the long run, is for the country to reduce deficits and debt to levels well below the Maastricht limits, and then develop some 'cap room'. The country could simply incorporate its fiscal plans into its medium-term report, and follow through.

As shown in the Table 6.2, a few of the EMU countries have projected budget surpluses and thus room for fiscal flexibility, while others expect to open up some 'cap room' over the next few years. For both Belgium and Italy, government debt relative to GDP is expected to remain well above the 60 per cent Maastricht upper limit through 2003. However, both countries have reduced their debts significantly over the past few years and expect to make further progress in the medium term, so they are not considered to be in violation of that criterion.

The projections in the 2000 stability programmes show that the EU member countries anticipate a gradual reduction in their fiscal deficits and debts relative to GDP over the next few years, although only about half expect to be in surplus by 2003. According to the Commission, however, most of the projected improvement will come from anticipated strong growth and reductions in interest payments, with no significant progress in the cyclically-adjusted primary balance.

The fact that the European Union has emphasized conformity in fiscal policy, along with the fact that the deficit targets are set in terms of actual deficits and that countries have developed only limited cap room, could do more than prevent fiscal stabilization. It could actually encourage pro-cyclical fiscal policies. Suppose a country is near the Maastricht deficit limit when growth slows. The slowdown will tend to lower tax revenues, raise deficits, and force spending cutbacks, hence aggravating the slowdown. If the growth

Table 6.2 Projections in the 2000 stability programmes (% of GDP)

| | <i>General government surplus</i> (Maastricht Limit = -3%) | | | | <i>Debt</i> (Maastricht Limit = 60%) | | | |
|-----------------|---|------|------|------|---|-------|-------|-------|
| | 2000 | 2001 | 2002 | 2003 | 2000 | 2001 | 2002 | 2003 |
| Austria | -1.7 | -1.5 | -1.4 | - | 62.2 | 61.2 | 60.0 | - |
| Belgium | -1.0 | -0.5 | 0.0 | 0.2 | 112.4 | 108.8 | 105.0 | 101.3 |
| Finland | 4.7 | 4.2 | 4.6 | 4.7 | 42.9 | 40.7 | 38.0 | 35.2 |
| France | -1.7 | -1.3 | -0.9 | -0.3 | 59.4 | 59.0 | 58.1 | 57.2 |
| Germany | -1.0 | -1.5 | -1.0 | -0.5 | 61.0 | 60.5 | 59.5 | 58.5 |
| Ireland | 1.2 | 2.5 | 2.6 | - | 46.0 | 40.0 | 36.0 | - |
| Italy | -1.5 | -1.0 | -0.6 | -0.1 | 111.7 | 108.5 | 104.3 | 100.0 |
| Luxembourg | 2.5 | 2.6 | 2.9 | 3.1 | 4.3 | 4.3 | 4.3 | 4.3 |
| The Netherlands | -0.6 | -1.3 | -1.1 | - | 62.3 | 61.8 | 61.0 | - |
| Portugal | -1.5 | -1.1 | -0.7 | -0.3 | 57.1 | 55.2 | 53.3 | 51.0 |
| Spain | -0.8 | -0.4 | 0.1 | 0.2 | 62.8 | 60.6 | 58.1 | 55.8 |

Source: ECB Monthly Bulletin, March 2000.

slowdown is not shared across the euro zone, this problem is compounded by the fact that interest rates are set centrally, hence eliminating any automatic monetary stabilizers.

How serious is this problem? If policy were pro-cyclical, as actual output falls relative to potential (making the output gap more negative), fiscal policy would be getting more contractionary (raising the structural budget surplus). Hence there would be a negative correlation between changes in output gaps and changes in structural budget surpluses. Table 6.3 shows data for ten countries in the euro zone, pre- and post-Maastricht. It also shows comparable data for five other countries, and with the correlations done for both actual and structural budget surpluses. The table suggests several points:

- For almost all countries there is a vast difference between the actual and structural correlations, indicating that automatic fiscal stabilizers are alive and well, pre-and post-Maastricht, inside and outside of the EMU area.
- For all euro area countries the correlation between output gaps and actual budget surpluses is positive in the post-Maastricht era, indicating that the automatic fiscal stabilizers do still work for most of these countries. Indeed, for all countries except Finland the correlations have become more positive since Maastricht, indicating that, for whatever reason, automatic fiscal stabilizers seem to work better than before in these countries. Note that the same is not true for the comparison countries at the bottom of the table.
- For all euro zone countries except for Finland and Austria, the structural correlations in the post-Maastricht period have become less negative,

Table 6.3 Correlations between changes in output gaps and changes in fiscal surpluses

| | <i>Actual surpluses</i> | | <i>Structural surpluses</i> | |
|-----------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
| | <i>Pre-Maastricht</i> (1983–92) | <i>Post-Maastricht</i> (1993–99) | <i>Pre-Maastricht</i> (1983–92) | <i>Post-Maastricht</i> (1993–99) |
| Germany | -0.85 | 0.55 | -0.86 | 0.03 |
| France | 0.76 | 0.88 | 0.16 | 0.55 |
| Italy | -0.05 | 0.29 | -0.42 | 0.00 |
| The Netherlands | 0.14 | 0.15 | -0.39 | -0.17 |
| Spain | 0.69 | 0.89 | 0.26 | 0.92 |
| Portugal | -0.13 | 0.41 | -0.31 | 0.26 |
| Belgium | 0.23 | 0.70 | -0.25 | 0.20 |
| Ireland | 0.04 | 0.49 | -0.33 | 0.10 |
| Austria | -0.20 | 0.15 | -0.10 | -0.21 |
| Finland | 0.62 | 0.42 | 0.59 | -0.16 |
| United States | 0.65 | 0.20 | 0.60 | -0.03 |
| Canada | 0.84 | 0.52 | 0.18 | 0.19 |
| Japan | 0.17 | 0.31 | -0.14 | 0.06 |
| United Kingdom | 0.58 | -0.22 | 0.62 | -0.23 |
| Sweden | 0.79 | 0.33 | 0.29 | 0.13 |

Source: OECD, June 2000.

indicating again that, for whatever reason, Maastricht seems to be generating discretionary fiscal policies that are less pro-cyclical than before.

- But even if Maastricht itself is absolved from blame, the fact remains that in all euro zone countries except for France and Spain, and in all comparison countries, the structural correlations are now either negative or close to zero, so there is not much discretionary counter-cyclical fiscal policy anywhere.

Even though country data do not suggest a serious pro-cyclical problem at this point, there is a rather simple way around the potential problem. Eichengreen has suggested that the deficit limits be applied to structural, and not actual, deficit levels. This simple change would eliminate the destabilizing bias toward pro-cyclical fiscal policies. One drawback to Eichengreen's suggestion is the difficulty of estimating potential output, which would be necessary to calculate structural budget balances. If national governments were charged with estimating their own potential output, there could be concerns that they would overstate potential output to make budget deficits look more cyclical than structural. On the other hand, if a central body were to estimate potential output, there would be criticism that national governments would be forced to alter fiscal policy in response to the calculations of anonymous bureaucrats. In fact, the OECD, IMF, and national governments frequently come up with divergent estimates of structural budget balances.

Monetary policy

Since the EMU is in effect creating a joint central bank from the central banks of eleven previously independent countries, it makes sense to look at how this has been accomplished. As described in some detail by Bertaut and Iyigun (1999), monetary policy in the euro area is conducted by the Eurosystem. This Eurosystem comprises the European Central Bank (ECB) at its centre, along with the eleven national central banks. The Maastricht Treaty confers upon the Eurosystem as a whole most normal responsibilities of a central bank: defining and implementing monetary policy in the euro area, conducting foreign exchange operations, holding and managing official reserves, promoting the smooth operation of payment systems, and issuing banknotes and coins. In addition, the Eurosystem is expected to contribute to policies relating to the prudential supervision and stability of the financial system and to collect relevant statistical information.

The Eurosystem is structured much like the US Federal Reserve System. The ECB has the responsibility to make sure that all of these central banking tasks are carried out, either on its own or by the national central banks. Decisions regarding monetary policy, interest rates and monetary growth, are set by the Governing Council (GC) of the ECB, composed of the eleven national central bank governors as well as six members of the executive committee. The primary responsibility of this executive board is to implement monetary policy and issue instructions to the national central banks, in accordance with the guidelines of the GC.

The euro area has adopted a form of inflation targeting to guide the conduct of monetary policy. As specified in the Maastricht Treaty, the primary objective of the ECB is to 'maintain price stability', defined as a change of 2 per cent or less in the published harmonized consumer price index. To bring this about, the GC considers the growth in euro area monetary aggregates, along with a mix of other indicators that give a 'broadly based assessment of the outlook for future price developments'. This mix includes wages, bond rates, the yield curve, measures of real activity, business and consumer confidence, and euro exchange rates.

The ECB's focus in setting monetary policy is on area-wide price developments, not on conditions in individual countries. Discussion in the ECB Monthly Bulletin is in terms of area-wide developments, and the ECB itself publishes only area-wide statistics. Although ECB officials sometimes comment on conditions in individual countries, such comments are in terms of how policy is likely to be set for the euro area as a whole, with the tacit assumption that fiscal policy (or something outside of the common monetary policy) is left to deal with differential conditions in individual countries.

The Eurosystem has the authority to make decisions about intervention in the foreign exchange market and to conduct those operations. The ECB can conduct foreign exchange operations using its own reserves, or it can instruct the national central banks (who hold the bulk of the foreign exchange reserves)

to do so on the Eurosystem's behalf. However, as stated in the ECB Monthly Bulletin (October 2000), 'with regard to the overall framework within which exchange rate policy is conducted, the Treaty [establishing the European Community] provides for close interaction between the ECB and the EU Council'. In particular, the Council can, after consultation with the ECB or upon recommendation of the ECB, formulate 'general orientations for exchange-rate policy' (according to art. 111 (2) of the Treaty).

The more operational aspects of monetary policy – the execution of open market operations, administration of standing facilities, and reserve requirements are conducted by the national central banks. Access to the standing facilities is granted by the national central banks in their own countries. Credit institutions must also submit bids for refinancing operations to their own national central banks.

Some administrative arrangements reflect prior differences. For example, the ECB designates collateral required for its operations in two tiers. Tier one includes marketable euro-denominated debt instruments that fulfill area-wide eligibility specified by the ECB. Tier two consists of additional marketable and non-marketable assets of particular importance to national banking systems. The establishment of two tiers of eligible collateral reflects eligibility differences across the national central banks. In these and some other matters the ECB decided that full harmonization of practices before the start of the monetary union was neither practical nor desirable.

Prudential supervision is also conducted in a decentralized fashion. There is no uniform standard determining which agency has supervisory responsibilities within the euro area. In Ireland, Italy, the Netherlands, Portugal, and Spain, the national central bank has exclusive supervisory responsibility. In Belgium, Finland, and Luxembourg, the central bank has no specific supervisory responsibilities. In Austria, France, and Germany the central bank is extensively involved in supervision, though the explicit supervisory authority is either another branch of the government or an autonomous public institution. Although most prudential regulations are harmonized within the European Union and supervisory roles remain at the national level, the ECB has seen the need for more coordination, and to this end established the Banking Supervision Committee in 1999. The mandate of this committee is to promote co-operation on issues of common interest to banking supervisors within the European Union, and to assist in the preparation of ECB opinions on draft legislation regarding banking supervision and financial stability.

Conclusion

The European Union represents an interesting case study for examining some of the postulates of fiscal federalism. Rather than dividing up responsibilities between the central and local governments, the Union was formed by a number of countries coming together to harmonize monetary and certain fiscal policies.

The European Union fits naturally into federalism orthodoxy regarding spending policies. Because the central authority is formed from national governments without independent political authority, central spending in the Union will most likely remain low, as suggested by federalist teachings. On the tax side, however, rather than having large common taxes to reduce migration incentives, the Union is working gradually to harmonize the taxes assessed by national governments on mobile factors. Time will tell whether harmonized national tax rates work as well as centralized taxation in limiting migration incentives, and other inefficiencies.

The EU has worked successfully to centralize monetary policy and harmonize interest rates. Simultaneously it has tried to enforce badly-needed fiscal discipline on its member states. Such a strategy should work well as long as there are not disparate recessionary shocks in some countries. If there are, these countries could in principle combat the shocks through differentially expansionary fiscal policy, but only up to the limits provided by various EU agreements. Again, time will tell whether these limits impede stabilizing fiscal policy.

On the whole, the EU has successfully negotiated a complicated transaction to harmonized tax and monetary policies. Inevitably, a few issues are left in the wake, and it will be interesting to see whether these issues become important as time passes.

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Part IV

A global perspective

7 Australia's federal experience

Jeff Petchey and Graeme Wells

Introduction

In 1901, the former colonies of New South Wales, Victoria, Queensland, Tasmania, Western Australia and South Australia federated to create the nation of Australia under the auspices of a new constitution. Within the federation, the colonies became States and a democratic national parliament with an upper house (the Senate) and a lower house (the House of Representatives) was created.¹ The party that achieves a majority of seats in the lower house forms the national government, generally referred to as the Commonwealth.

Since then Australia has remained a relatively prosperous democratic federation with two features that distinguish its fiscal arrangements from other federal countries: highly centralized tax powers and a strong emphasis on inter-State equity. Centralization of taxes has its origins in decisions made in the course of framing the Constitution, as well as transfers of taxing powers made during the Second World War. The cornerstone of the emphasis on equity is a federal institution known as the Commonwealth Grants Commission. Created in 1933 following a period of instability in the federal union, the Commission implements the most comprehensive system of inter-State transfers of any federal country. The goal of these transfers is to achieve equity across States in the provision of public services.

The next two sections of the chapter are organized around two important distinguishing features of Australian federalism – centralization and the emphasis on equity. The conclusion highlights implications of this experience for the European Union.

Centralization

In common with the European Union, an important economic motive behind Australian federation was the desire to create a customs union with a uniform system of external tariffs.² For this reason, the power to levy tariffs was given exclusively to the Commonwealth in Section 90 of the Constitution. The right to levy excise taxes was also ceded to the Commonwealth within the same Section. Various explanations for this have been offered. One is that the founders were concerned that States might use excise taxes to interfere with

the intended effects of federal tariff policy.³ Another is that they were worried over the potential for excise tax competition between States to distort free internal trade. There is also evidence of a general fear of the negative effects of inter-colonial rivalry, its impact on federal stability and the need for the States to pursue common interests through co-operation.

The effect of the State tariff and excise tax exclusion embodied in Section 90 was to leave the States financially weak. In the now famous words of Alfred Deakin, one of the key instigators of Australian union, Section 90 left the States 'financially bound to the Chariot wheels of the central Government'.⁴ However, though the Commonwealth gained considerable tax powers at federation, it had few expenditure responsibilities (these were restricted mainly to defence and foreign affairs). The Commonwealth's tax revenues far exceeded its spending. States, however, retained responsibility for the major public expenditures.

The mismatch between expenditure and revenue for the two levels of government is illustrated in Table 7.1. In 1901 the Commonwealth was the dominant collector of taxes, although this disparity is reversed if revenue from land sales and business operations is taken into account. The States, on the other hand, were responsible for more than 90 per cent of expenditures. These imbalances have changed during the twentieth century. The increasing importance of the Commonwealth's taxing powers in the overall financing of government spending reflects, in part, the increasing share of total taxes raised by the Commonwealth, rising from 66 to 77 per cent of tax collections. But also, non-tax elements of State revenues have declined as the pace of land sales slackened off and privatization has cut the importance of State-owned business operations. Centralization of expenditure has been even more pronounced. In 1901 the Commonwealth's share of expenditure was less than 10 per cent, with the States providing the bulk of public services. By the end of the century, the share of Commonwealth spending had risen to 53 per cent.

Table 7.1 Changes in revenue and spending powers: Australia (%)

| | 1901–02 | | 1998–99 | | |
|--------------------------------|---------------------|--------------|---------------------|--------------|--------------|
| | <i>Commonwealth</i> | <i>State</i> | <i>Commonwealth</i> | <i>State</i> | <i>Local</i> |
| Tax revenue ¹ | 76.2 | 23.8 | 77.1 | 19.4 | 3.5 |
| Total revenue ² | 41.5 | 58.5 | 68.4 | 26.2 | 5.3 |
| Total expenditure ³ | 9.4 | 90.6 | 52.7 | 47.3 | |

Notes

1 For 1901–02, Barnard (1986); for 1998–99, Australian Bureau of Statistics, *Taxation Revenue 1998–99* (catalogue no. 5506.0), Table 2.

2 Includes revenue from land sales, net revenues from business operations and taxation, but excludes intergovernment transfers. For 1901–02, source as for 1; for 1998–99, Australian Bureau of Statistics, *Government Financial Estimates 1999–2000* (catalogue no. 5501.0), Tables 2, 5 and 11.

3 Excludes intergovernment transfers. For 1901–02, Barnard (1986); for 1998–99, Australian Bureau of Statistics, *Government Financial Estimates 1999–2000* (catalogue no. 5501.0), Tables 1 and 10.

Comparing the 1901 figures with those for 1998, two points emerge: the Commonwealth has greatly increased its share of total tax revenue collected and it has expanded its share of total public sector expenditure.⁵ These changes are due mainly to the further loss of tax powers by the States in the period between federation and the current era. They are also influenced by the fact that there was a general expansion of the role of government during the twentieth century and much of this expansion occurred at the national level (principally, development of the welfare state and income redistribution).

Taxes

The shift of taxation powers to the Commonwealth since federation has been a result of two factors. First, in 1942 the Commonwealth took control of the income tax base as a temporary wartime measure, albeit not without an unsuccessful High Court challenge by the States as to the constitutional validity of the legislation. Prior to 1942, both the States and the Commonwealth levied income taxes, with a wide variety of bases and rates. In the previous two decades there had been some movement towards uniformity of tax arrangements by the various States, but in 1942 there were still 26 separate Commonwealth and State income taxes.⁶ In the longer term, Commonwealth control of the income tax simplified and unified that part of the tax system; in the short term a more important motivation was to constrain spending by the States, releasing resources for military purposes. The latter objective was achieved by returning to the States a sum less than the State taxes collected immediately prior to the transfer of tax responsibility. In terms of tax centralization, the effect of these measures was dramatic – in 1945, 94 per cent of all taxes were collected by the Commonwealth.⁷

Temporary tax measures quickly acquire a degree of permanence, and in 1946 this proved to be the case with the transfer of income tax powers. Post-war legislation enacted by the Commonwealth entrenched wartime arrangements. Provided States vacated the income tax field, they received grants from the Commonwealth, the size of which was indexed for growth in population and nominal wages. With various changes to the basis on which the grants are determined, this system has persisted to the present day.

The second major force towards centralization involves the meaning of the term 'excise' used in Section 90 of the Constitution. To an economist, an excise at the State level is a tax on the quantity or value of particular goods produced within the State. As noted earlier, such a tax, if levied by a State, has the potential to discriminate between imported and locally produced goods and may interfere with the intended effects of federal tariff policy.

Given the lack of clarity in the Constitutional debates and the Constitution itself about the definition of excise, the High Court was soon asked to interpret its meaning. The first case to be considered⁸ saw the Court adopt an economist's view of an excise. This left the States free, in principle, to impose other consumption-type taxes, including general sales or value added taxes.

The early stance by the Court was soon abandoned in favour of a more expansive view of the meaning of excise, the implication of which is that the States can only levy a tax on consumption (e.g. a general sales tax) as long as they levied the tax on consumers directly. However, adoption of such a broad view of excise meant that the States could not use retailers as tax collection agents, effectively excluding the States from adopting consumption taxes. Section 90 cases have seen the adoption of this wide definition of an excise as any tax on the production, distribution or sale of goods. In other words, an excise has been interpreted by the High Court more as a general sales tax or value added tax.

Thus, the excise tax exclusion within Section 90 of the Constitution, together with the High Court's broad interpretation of excise, has excluded the States from the consumption tax base.⁹ As with the income tax, this is in contrast to other federations where sub national governments levy consumption taxes. The result is that, as detailed in Table 7.2, the States have been restricted to a relatively narrow tax base, relying mainly for their own-source revenues on payroll taxes, land taxes, franchise fees, and a range of other minor tax instruments.

Spending

While tax powers have been ceded to the Commonwealth the States have retained responsibility for major areas of spending, including education, health and the provision of important public infrastructure such as utility services, roads, rail networks and ports. However, as noted, the major expansion of public expenditure – a feature of most economies during the twentieth century – has taken place at the national level, principally in the area of income redistribution. Thus, as indicated in Table 7.1, the Commonwealth's share of expenditure has increased considerably since 1901 while the States' share has decreased. Unlike taxes, this is due to the expansion in expenditure at the national level rather than to any loss of expenditure responsibilities by the States.

Fiscal imbalance

We have argued that in Australia the disparity between revenue means and expenditure needs at the two levels of government – vertical fiscal imbalance – has increased substantially as a result of the centralization of tax powers. Though similar trends can be identified for other major federations, it is commonly recognized that the level and rate of increase of central dominance over taxation has been relatively more marked in Australia. This is recognized, for example, by Shah (1994). He shows, using an index of sub-national autonomy derived from measures of vertical fiscal imbalance such as those presented in Table 7.1, that of ten major federations (including the United States and Germany), Australian States have the second lowest degree of fiscal autonomy.

Table 7.2 Sources of tax revenue 1998–99 (\$Abn)

| <i>Commonwealth</i> | | <i>State and local</i> | |
|---------------------------|-------|------------------------|------|
| Income | 101.9 | Payroll | 8.0 |
| Payroll | 3.2 | Gambling and insurance | 6.2 |
| Sales, customs and excise | 31.7 | Motor vehicles | 3.9 |
| Other | 0.5 | Franchises | 9.9 |
| | | Property | 16.7 |
| Total | 137.3 | Total | 40.8 |

Source: Australian Bureau of Statistics, *Taxation Revenue 1998–99* (catalogue no. 5506.0), Tables 3 and 4.

Scholarly debate over the economic costs and benefits of vertical fiscal imbalance and State fiscal dependence has not been particularly intense. Research results that do exist have been almost entirely against centralization. Specifically, commentators have argued that centralization reduces accountability and creates fiscal illusion among voters. They also argue that policy competition between States which, as Breton (1984) has proposed, may curtail the taxing power of wayward governments acting in their own self-interest, is diminished by centralization. While this may result in a lower overall level of taxation than otherwise would have been the case, other writers observe that the States have been forced to rely on relatively inefficient taxes because of the central dominance of the major bases. Useful discussions of all of these arguments can be found in Walsh (1990, 1993, 1996).

Finding Australian scholars who support the *status quo* is much more difficult – indeed, we know of no well-reasoned defence of Australian centralization. Politicians and policy-makers claim that centralization of tax powers is necessary in order to allow the Commonwealth to conduct macroeconomic policy, income redistribution and pursue the national interest in matters of joint concern to the States. As noted earlier, pursuit of common interests was a motivating factor behind federation in 1901 and the Commonwealth frequently uses this justification for central intervention in its dealings with the States.

The detractors from centralization have called for a reallocation of tax powers to the States. These calls were particularly strong during the 1980s and early 1990s when the States were going through a period of budgetary stress, but have tapered off in recent years. Two options were proposed. The first, allowing the States into the consumption tax base, required a Constitutional amendment to delete the words ‘. . . and of excise’ from Section 90. The second, that the States be given access to the income tax base – in conjunction with the Commonwealth – was the proposal that seemed to be taken most seriously, at least among the few scholars taking an interest in federalism. The economic costs and benefits of each approach are discussed in Collins (1993). In practice, neither of these proposals received widespread support at the policy or political level. Federal politicians and bureaucrats

continue to use national interest and macroeconomic arguments in support of the *status quo*.

Specific purpose payments

Petchey and Shapiro (1997b) provide another perspective. They observe that, because of a High Court decision in 1926, the Commonwealth has unfettered power to attach conditions to the tax reimbursement transfers that it must make to the States each year as a result of vertical fiscal imbalance. Successive Commonwealth administrations have taken advantage of this decision and an increasing proportion of total Commonwealth transfers to the States since 1926 have been conditional. The conditions include matching requirements and clauses specifying that the States must adopt policy guidelines set down by the Commonwealth in order to qualify for funding. Greatest use of these transfers, known as specific purpose payments, has been made in education and health. In the year 2000–01, specific purpose payments will account for 69 per cent of all Commonwealth transfers to the States.

Bureaucracies have grown at the Commonwealth and State levels of government charged with the sole task of administering and negotiating agreements related to specific purpose payments. In recent years both levels of government have expressed support for a reduction in these conditional grants, without effect. The States in 2000 remain highly dependent on specific purpose payments, particularly in health and education.

According to the thesis put forward by Petchey and Shapiro, specific purpose payments have allowed the Commonwealth to have a considerable influence on State policy-making in areas intended by the spirit of the Constitution to be State responsibilities. Indirectly, tax centralization and vertical fiscal imbalance have facilitated the diminution of State autonomy over their expenditure policies. States have increasingly become spending agents of the Commonwealth with little discretionary power over taxes or expenditure policy. The implication is that centralization is even more severe in Australia than measures of fiscal autonomy, for example, those of Shah, or simple vertical fiscal imbalance ratios, suggest.

The 2000 tax reforms

Recently, a rare opportunity arose to decentralise tax powers, a chance that was not taken. During 2000, the Commonwealth introduced a value added tax known locally as a Goods and Services Tax (GST). In 2000–01, the new tax is expected to raise about \$24 billion.¹⁰ There have been compensating cuts in income and other taxes so that the policy change is approximately revenue neutral from the Commonwealth's perspective. The principal motivation for the changes to tax policy is economic efficiency, with the choice of consumption tax based on the belief that a value added tax is less inefficient than a simple consumption tax.¹¹

Prior to its introduction, limited debate took place on whether the tax should be levied independently by the States – an option that would require amendment of Section 90 of the Constitution. Supporters of a more competitive federation favoured the introduction of a State based sales tax similar to the one levied by the United States.¹² However, for policy-makers and politicians the constitutional obstacles to this option seemed insurmountable. In Australia, there is a history of electoral suspicion and rejection of constitutional amendments, and given the practical difficulties with operating a value added tax at the sub-national level in a federation (see Boadway (1997)), a State level consumption tax was ruled out.

The outcome of the tax reforms imply that lip service was paid to the notion of improving the States' autonomy, but in practice nothing changed. The Commonwealth levies the GST, with all the revenue returned to the States. The States also have some indirect say in levying the tax rate (currently a uniform 10 per cent) and administrative matters. The Commonwealth has eliminated its existing unconditional grants to the States (though not the specific purposes payments) by an amount equal to the revenue raised from the GST.¹³ Therefore, the reforms still leave the Commonwealth with substantial control of State expenditure at the margin, at least in the immediate term.

This amounts to a revenue sharing mechanism in which the States share one hundred per cent of the federal GST base. The arrangements do not give the States independent tax powers and do not increase State fiscal autonomy. Rather, the untied grants that States used to receive, and which were determined largely at the discretion of the Commonwealth, have been replaced by a revenue sharing system.

Of course, one can argue that this gives the States more certainty since they are less dependent on Commonwealth discretion over the size of untied transfers and instead have access to a tax that will likely grow in real terms. However, in another sense they are just as dependent on the Commonwealth which still has discretionary power over the tax rate, the tax base, and whether the States continue to receive one hundred per cent of the revenue raised.

The 'fiscal cartel' thesis

Explanations of why Australia has become so centralized are few. One of the more prominent ideas is that the Australian federation is a fiscal cartel in which States and the Commonwealth collude to minimize tax competition. The benefit to the Commonwealth and the States is that they exploit the monopoly power of the central government and raise more revenue than under a competitive tax regime in which tax powers are decentralized and States engage in tax competition. The monopoly tax revenues are passed back to the States through the intergovernmental transfer system. Shapiro and Petchey (1994), in a theoretical analysis of the economic effects of the excise tax exclusion within Section 90, model Australian federalism in this fashion.

Is this good or bad for citizens? The answer depends on how one views

government behaviour. If it is believed that governments are benevolent and pursue the interests of the citizenry, then a fiscal cartel may be desirable. In this world, it is well known that fiscal competition leads to inefficient outcomes.¹⁴ By eliminating the inefficiency, a cartel raises social welfare (tax harmonization, as distinct from centralized tax collection, can achieve the same welfare improving outcomes if governments are benevolent). The presence of scale economies associated with tax collection enhances the welfare gains from a fiscal cartel (scale economies are not a benefit of harmonization, however, since tax raising remains at the state level). In Australia, the economies of scale argument is frequently used by the Commonwealth to justify central collection of taxes.

Alternatively, if governments pursue their own interests, including revenue maximization or furthering the prospects of powerful lobby groups, a tax cartel is not in citizens' interests. In this world, fiscal competition helps protect citizens against the abuse of power by governments. By removing competition the cartel takes away this protection and makes it easier for governments to pursue their own interests.

Anecdotal evidence of political and official support for the tax cartel is readily found. Kelly (1978) notes that the system is one of the 'sacred cows' of Australian politics. The discussion of this issue in Kelly ends with a poem, supposedly a State tax official's response to a Commonwealth offer of more tax powers:¹⁵

We thank you for the offer of the cow,
 But we can't milk so we answer now,
 We answer with a loud emphatic chorus,
 You keep the cow and do the milking for us.

Regretfully, there is no rigorous empirical analysis of whether State governments and the Commonwealth have colluded in a tax cartel arrangement to maximize tax revenue. But the idea remains a popular one in Australia. It also appeals to economists who worry about the power of government, public choice issues and whether governments act in the best interests of citizens or pursue their own agendas.

Borrowing

At the time of federation, the States and Commonwealth each retained the right to issue sovereign debt. No rules-based constraints on borrowing, such as the balanced budget requirements or specified debt ratios that characterize other federal systems, were contemplated. None have been implemented subsequently. Rather, the twentieth century has seen increasing centralism in terms of the Commonwealth's control over global borrowing limits for the federation as a whole. It is only in recent times that this control has been relaxed, with increasing reliance placed on market-based monitoring of State indebtedness.

The Commonwealth's first substantive entry into the market was occasioned

by the need for military spending after 1914. After the war, the early 1920s was a time of intense competition between State governments in domestic and international financial markets, and non-co-operative borrowing policy was thought to create negative externalities. The Premiers' Conference of 1923¹⁶ delivered a cooperative mechanism by creating a new institution, the Loan Council, with the aim of co-ordinating borrowings by the States and the Commonwealth. The Council did this by securing voluntary agreement on the timing of loan issues and the equalization of loan conditions and interest rates to be paid.

At the time the concern was with minimizing borrowing-policy competition between governments, rather than with the magnitude of borrowings and the prospect that governments might be 'under' or 'over' borrowing. States were left to determine how much they borrowed. Further, if agreement was not reached over timing, interest rates and conditions, States could opt out of the voluntary compact. The Commonwealth's role was limited to one of facilitating co-operation and monitoring the voluntary Council's operations based on information reported by the States on their borrowings.

These voluntary arrangements were soon replaced by a permanent Loan Council as part of the Financial Agreement of 1927, an objective of which was for the Commonwealth to acquire freehold title to properties transferred to it at the time of federation, in return for the assumption of Commonwealth liability for State debt.¹⁷ The seeds of Commonwealth domination of the Council were sewn from the start because, although the States each had one vote in Council decisions, the Commonwealth had two votes plus a casting vote. By the 1930s concerns about the need to eliminate competition from government borrowing policies, the prime purpose for setting up the Loan Council, gave way to worries over excessive state borrowing and high spending on infrastructure during the Depression. The Commonwealth responded by exercising its control over the Loan Council and imposed binding limits on new state borrowings. From this point onward, the Commonwealth's stranglehold on the Loan Council expanded and it was increasingly used as a credit rationing scheme applied to the States and local governments to achieve macroeconomic goals.

This system broke down in the 1980s, for a number of reasons. At the time the Commonwealth had large budget deficits and used the Loan Council to reduce the state allocations in real terms. States responded by using innovative financing arrangements, made possible by general deregulation of financial markets, through both local governments and public enterprises. The proportion of State and local government borrowing under the control of the Loan Council fell from 95 per cent in 1979–80 to 25 per cent in 1983–84.

The financial market deregulation of the early 1980s also helped foster the idea that financial markets could become effective monitors and regulators of sub-national borrowing policies. By this time concerns over inefficiencies arising from competition between States in financial markets had also evaporated because of the increasing sophistication and size of domestic markets, and growing access by the public sector to international financial markets.

The so-called global approach, introduced in 1985, was an attempt to continue regulation in the form of a voluntary agreement between the Commonwealth and the States, monitored by the Commonwealth through the Commonwealth Treasury. The Commonwealth had no legal sanctions to enforce compliance as it did under the earlier arrangements but it did use financial sanctions quite effectively, for a time, after 1985. The role of the Loan Council as sole borrower on behalf of the States was scrapped. It was given the new task of setting an overall global borrowing limit for new (gross) borrowings for the sub-national sector. Given the federal dominance of the Loan Council this was in reality nominated by the Commonwealth and agreed to by the States following 'negotiation' with the threat of financial sanctions through general revenue grants being used to ensure compliance.

This period marked a radical shift in the distribution of borrowing policy powers in the sense that states were now allowed to borrow directly from financial markets in their own right, and negotiate directly over terms and conditions. Further, the explicit Commonwealth guarantee had gone. For the first time since 1927, investors were lending directly to states as sovereign entities and being exposed to state risk, although there was still an implicit Commonwealth guarantee. In practice, the Commonwealth's financial sanctions have proved impossible to enforce with any precision. Because a major activity of the States is the provision of public services through institutions with a variety of ownership structures, monitoring State liabilities is extremely difficult.

A feature of the new arrangements is that while the Loan Council has a less direct role in sub-national borrowing regulation, and the states have more independence, moves have been taken to improve monitoring and regulation of sub-national borrowing by financial markets. Adoption of a common accrual accounting standard across all national and sub-national jurisdictions is an important part of this process. However, financial markets alone are still seen in Australia as inadequate monitors and regulators of the States. Two reasons are given for this. First, in a federation where the central government implicitly guarantees state debts there may be a moral hazard problem leading states to over-borrow. Second, there is a public choice question of whether governments react efficiently to financial market signals. Both have been advanced as reasons for continued regulation of sub-national borrowings in Australia.

There has been no recent analysis of the efficiency of these arrangements. However, it is of note that in 1999 general government debt, aggregated over all jurisdictions, was just 15.7 per cent of GDP, which is low by contemporary OECD standards.¹⁸

Constitutional and political constraints

Clearly, the Australian Constitution has not protected State interests from the encroachment of Commonwealth fiscal dominance. Rather, through its lack of

specificity, and the actions of the High Court, the Constitution has aided the loss of State autonomy.

The other way that State interests might have been protected is through the political process itself. In this respect, a two-house Parliamentary system was established at the federal level in 1901: the House of Representatives and the Senate. The intended role of the Senate was to protect State interests, and in particular, the interests of the less populous States. To achieve this, these States were given more than their per-capita share of Senate representatives (vote weighting). However, most political commentators recognize that the Senate has never been an effective 'States house' mainly because of the party system, which has seen voting on party, not State, lines.

The implication is that the institutions and legal processes established at federation left the way open for Australia to become highly centralized if the public choice process at the national and State levels decided that this should happen.

Equity

High centralization and vertical fiscal imbalance imply that the Commonwealth makes comparatively large transfers to the States each year. These transfers now comprise specific purpose payments (conditional transfers) and all of the revenue from the GST, which is unconditional.

We have noted that the specific purpose payments have promoted Commonwealth influence in State policy decisions – back door centralization. What we now suggest is that, through the model used to distribute unconditional transfers, centralization also facilitates inter State uniformity in the provision of public services. The emphasis on uniformity, we argue, is a result of an overriding concern in Australia for egalitarianism and equity. As noted, this as a key feature that separates Australia's system of federalism from other countries.

The distribution of unconditional transfers to the States is determined by a horizontal fiscal equalization formula developed by the Commonwealth Grants Commission. The formula, the most comprehensive adopted anywhere in the world, is complex. A full explanation is unwarranted here but we can give some basic insights using a simple example. Consider revenue base j . The formula estimates the average tax rate applied by all States to base j . Suppose this to be 10 per cent. The formula then calculates the (per capita) value of tax base j in State i , which we suppose for our example to be \$40, and the (per-capita) value of tax base j averaged across all States, which we suppose to be \$50.

Two calculations then follow. First, the average tax rate for base j is applied to the average tax base j . In the example, this yields \$5. The average tax rate is then applied to tax base j in State i – in our example this yields \$4. The implication is that if State i were to apply the average tax rate to its own tax base j , it would raise \$4 in revenue, but when the average tax rate is applied to

the average tax base, the yield is \$5. The difference is due to the fact that State *i*, in our example, is assumed to have a relatively low valued tax base *j* (on a per-capita basis). This might be because it is a relatively poor State.

The formula treats the difference between the two, here an amount of \$1, as a revenue need. State *i* would be entitled to receive a \$1 (per-capita) grant from the pool of funds available. This means that if the State chooses to make an average tax effort with respect to base *j* it will receive \$5 in revenue – \$4 from its own efforts and \$1 in grant which is derived from the tax base of all other States included in the formula.

In this respect, the formula is no different from tax base sharing schemes used around the world, both at the national level, and at the city or regional level. Essentially, the formula allows each State to share the total tax base of all States and to raise a given amount of revenue from its own base without having to tax its citizens more heavily (or lightly) than the average tax rate. Of course, the total revenue need for State *i* will be the sum of its needs on each tax base. This sum could be negative or positive, depending on whether State *i* is rich or poor in terms of income and endowments of resources.

What distinguishes the Australian approach is the other component of the model which assesses expenditure needs. This is calculated by first assessing, for each expenditure category, the average (across all States) cost of providing the service. The formula then estimates the extent to which the cost of providing each service in State *i* deviates from the average for that service due to factors such as population size, the geographic dispersion of the population, economies of scale, ethnic background and age distribution. These factors are known as ‘cost disabilities’ and can be compensated under the Commission’s methodology. In estimating cost disabilities, an attempt is made to isolate the influence of policy induced inefficiencies.

The Grants Commission estimates two types of cost disability, one for recurrent expenditures and another for spending on capital. However, the Commission’s capital cost disabilities are estimated from the recurrent disabilities. This procedure, along with other aspects of the estimation of capital disabilities, has attracted criticism from the States and the Commission is currently undertaking a review of its capital equalization methodology.¹⁹

The deviation between a State’s cost of providing a particular service and the average cost is then used to create an estimate of the expenditure need for that service in State *i*. Positive expenditure needs arise for a service when a State faces relatively high costs of providing it. The sum of expenditure needs across all services determines a State’s total expenditure need, which may be positive or negative.

The equalization formula combines the revenue and expenditures needs estimates in such a way that yields, for each State, a ratio that determines the State’s share of the pool of funds available for distribution. The share of a State in the revenue pool is determined by the strength of its revenue base relative to the average and the costs it faces in providing services relative to the average.

A major impact of the formula is to redistribute income from the high

income low cost States to the lower income high cost States. The extent of this redistribution can be seen by comparing what the States actually receive from the pool under the equalization model with what they would receive if the revenue were given back to the States on the basis of where it is raised. Alternatively, one can examine what the States would receive if there were an equal per-capita distribution. This last comparison is made in Table 7.3. Clearly, New South Wales and Victoria (high income and low cost States) and Western Australia (high income but high cost State) would gain from an equal per-capita distribution while all other States would lose, relative to the distribution using the Commission's formula.

Criticism of the equalization system has been directed at its efficiency costs. For example, Gramlich (1984) has been highly critical of the equalization model on efficiency grounds, claiming that it encourages people and capital to migrate to remote areas that are costly to supply. Dixon *et al.* (1993) use a general equilibrium model to argue that equalization leads to inefficient inter-State migration of capital and labour. Albon (1990) makes similar criticisms.

The system can also be defended on efficiency grounds. An obvious way to do this is to draw on the well known notion that inter-State transfers may be required to establish an efficient allocation of mobile factors of production between States. This argument, developed by Boadway and Flatters (1982), and refined by others including Myers (1990), Mansoorian and Myers (1993) and Burbidge and Myers (1994), is that if States have access to taxes on resource rents, or create fiscal externalities from the operation of their tax and expenditure systems, a free migration equilibrium in which factors allocate themselves between States to satisfy some sort of 'equating at the margin rule'

Table 7.3 The impact of horizontal fiscal equalization, Australia, 2000–01

| | Distribution using CGC relativities (1) | | Distribution on equal per-capita basis (2) | | Difference (1)–(2) |
|------------------------------|---|-------|--|-------|-----------------------|
| | \$million | % | \$million | % | |
| New South Wales | 9,229.2 | 30.7 | 10,149.0 | 33.8 | -920.0 |
| Victoria | 6,499.3 | 21.6 | 7,464.0 | 24.8 | -965.0 |
| Queensland | 5,703.3 | 19.0 | 5,599.0 | 18.6 | 104.0 |
| Western Australia | 2,920.1 | 9.7 | 2,968.0 | 9.9 | -48.0 |
| South Australia | 2,768.0 | 9.2 | 2,340.0 | 7.8 | 428.0 |
| Tasmania | 1,104.0 | 3.7 | 730.0 | 2.4 | 373.0 |
| Australian Capital Territory | 544.7 | 1.8 | 489.0 | 1.6 | 55.0 |
| Northern Territory | 1,279.0 | 4.3 | 307.0 | 1.0 | 972.0 |
| Total | 30,048.0 | 100.0 | 30,048.0 | 100.0 | 0.0 |

Source: Commonwealth Budget Paper No. 3, 'Federal Financial Relations, 2000–01'.

Notes

Total is equal to \$23,955.6 million from the Goods and Services Tax in 2000–01 and \$6,092.1 in Health Care Grants which are also subject to the equalization formula.

may be inefficient. For example resource-rich States may use rents to provide location-specific factor subsidies. Inter-State transfers then have the potential to move factors in such a way that creates efficiency in their geographic distribution and maximizes national welfare.

Dixon *et al.* (1993) obtain the result that transfers shift factors inefficiently because they do not allow for the possibility that State taxes on resource rents and fiscal externalities can lead to inefficient free migration of mobile factors. Rather, in their model, factors always allocate themselves efficiently across States in the absence of transfers. Therefore, any inter State transfer induces inefficiency. This feature of the Dixon *et al.* (1993) model was emphasized by Petchey (1995) who, using a model more in the spirit of Boadway and Flatters, showed that transfers can be efficiency enhancing, and more specifically, that Australian equalization – even with its inclusion of expenditure needs – may be efficiency enhancing.

The efficiency effects of Australian equalization, when assessed against factor mobility arguments, are not yet settled. But one can say that the previously dominant opinion, that equalization creates inefficiency in the geographic distribution of resources, has been countered by other arguments. In our view, the two sides to the debate have probably neutralized one another, and interest in the issue has now waned to some extent.

Inter-State transfers may also be the glue that holds a federation together, ensuring federal stability. Briefly, the idea is that some States are winners from the process of federation while others are losers. The distribution of winners and losers, and the size of the gains and losses, is dependent upon the degree of diversity between the States forming a union. Diversity may be expressed in terms of economic factors such as incomes, preferences, production technologies or endowments of natural resources, as well as in terms of cultural, ethnic and political differences. If the economic surplus from union is sufficiently large to compensate the losing States, leaving them no worse off than they were in autarky (and hopefully better off), while at the same time making the winning States better off, then the union may be stable in the sense that no participating State will wish to secede. However, stability may depend on the existence of inter-State transfers. Moreover, the larger is the diversity between members of the union, the greater is the need for inter-State transfers to maintain stability. These conclusions result from the application of co-operative game theory concepts (where side payments are allowed) to the theory of federal union.

In Australia's case, there is some evidence that federal stability was a significant motivating force behind the creation of the Commonwealth Grants Commission in 1933.²⁰ However, since then federal stability has become less of an issue in Australia – especially since there is now such a high degree of homogeneity between the States. It would be difficult to defend equalization in Australia, at least in modern times, on federal stability arguments. The factor mobility–efficiency case has also, with the exception of Petchey (1995), not generally been used to justify Australian equalization. Rather, the

prominent view is that equalization is designed to support uniformity in the provision of access to public services across States – an equity goal.

Conclusion

Regional unions of States are susceptible to centralization and the sustained loss of autonomy by member States. A benefit is that the union gains from scale economies associated with tax collection, and also the provision of public goods. Central action also allows a union of States to pursue common interests. But there are costs including a loss of policy diversity. This cost is considerable if preferences, resource endowments and technologies of the member states are very different. Also, if one is seduced by the notion that governments pursue their own agendas, the concentration of tax powers may not be in the best interests of citizens. Achieving the most desirable degree of central versus decentralized responsibilities is a matter of balancing the costs and benefits.

The aim of a regional union, such as the European Union, should be to develop a distribution of tax and spending powers that minimizes the costs of central action and maximizes the benefits. This will entail the development of mechanisms to protect member state interests as the power of the centre grows, as it must in order to deal with matters of common interest to the Union. The Australian experience suggests that explicit political and constitutional constraints on central power are difficult to design and may not work in practice.

If the European Union expands to accept more States from the eastern borders of the Union (e.g. States from the former Soviet Bloc) then the Union will also become much more disparate in terms of incomes and preferences over public policy outcomes. As a result, there will be greater migration of mobile factors of production, including capital and certain types of labour, from poorer eastern States to richer western States as the borders are opened. Fears of such migration are causing resistance to further integration. They have led to recent calls, by countries such as Germany, for policies designed to curtail the expected influx of labour. One proposal is that labour in the currently excluded States be made to wait for seven years (after integration) before being able to acquire a job in one of the existing member states.

An alternative, and perhaps more effective response, would be for the Union to consider a system of inter-State equalization transfers. We know from the discussion here that inter-State equalization transfers, in this case from the richer to the poorer States, have the potential to reduce any inefficient migration that may follow from an expansion of membership. Thus, the further planned expansion of the Union may need to be accompanied by the introduction of a formal system of Union wide equalization. This may mean considering, at the very least, a system of tax base equalization, which estimates revenue needs of member states. The Australian experience also suggests that there are benefits to having a formal and transparent system of inter-State redistribution, implemented by a separate institution that is responsible directly to the central parliament.

Notes

- 1 Two territories (the Northern Territory and the Australian Capital Territory) have been created since federation. These operate like States for most purposes and in what follows references to States can also be taken to refer to the territories. The third tier of government – local government – includes urban municipal authorities and rural authorities. These are not sovereign entities and have no status in the Australian constitution, although they do have status in State constitutions.
- 2 All the colonies were on the gold standard prior to federation, so monetary union preceded formation of a customs union, reversing the European sequence.
- 3 For discussion of this argument, see Coper (1988).
- 4 Deakin 1901, p. 17.
- 5 Examination of time series data (not displayed) on revenue and expenditure shares confirms that these observations are long run trends. We have presented observations for two years only for presentational convenience.
- 6 See Laffer (1942).
- 7 *Yearbook of the Commonwealth of Australia*, No.36 1944–45, p. 730.
- 8 *Peterswald v Bartley* (1904).
- 9 There were, until recently, three exceptions: the States were allowed to levy franchise fees on tobacco, alcohol and petroleum products. The Court justified this by arguing that franchise fees are taxes on the right to conduct business rather than consumption itself (this interpretation relied on the use of the previous year's sales as the fee base). Recently, however, even these loopholes have been closed and the Commonwealth on behalf of the States now collects franchise fees, with the revenue being returned to the States using a distribution formula.
- 10 Commonwealth Budget Paper No. 3, 2000–01.
- 11 The efficiency arguments are discussed in Freebairn (1998).
- 12 See the arguments in Petchey and Shapiro (1997a).
- 13 As is discussed later, the distribution of the GST revenue is determined by a fiscal equalization formula (as were the old Financial Assistance Grants which are replaced by the GST revenue).
- 14 See Wildasin (1988).
- 15 We do not know whether the poem is imagined (by Kelly) or real, and assume the 'cow' to be a representative taxpayer.
- 16 The Premiers' Conference is an annual meeting between state premiers and the Prime Minister to coordinate intergovernmental financial issues.
- 17 The Financial Agreement was a formal contract between the States and the Commonwealth, in the sense that the Loan Council was established by an amendment to the Constitution.
- 18 Commonwealth of Australia (2000) Table B4.
- 19 The only empirical estimates of capital cost disabilities for the Australian States are to be found in Petchey, Shapiro, MacDonald and Koshy (2000).
- 20 See May (1971).

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8 Fiscal federalism in Switzerland

A public choice approach

Christoph A. Schaltegger and René L. Frey

Introduction

One of the fundamental problems of political systems is that governments strong enough to protect individual property rights are strong enough to confiscate the wealth of their citizens too (Weingast, 1995). To resolve this dilemma, from a public choice point of view constitutional rules are needed to prevent politicians from abusing their power. Checks and balances must create credible commitments for self-enforcing institutions. Federalism is an important institution of this kind.

The meaning of federalism as a principle of political order is not clearly defined. Many different interpretations exist. Following Riker (1964), we characterize the federalist system by hierarchy and autonomy of different layers of government. In this sense, federalism is based on the principle of subsidiarity. As a concept of a social and constitutional order, the meaning of subsidiarity can be traced back to Johannes Althusius, a juridical savant of the seventeenth century. He claimed that government authority and sovereignty should be based on a bottom-up approach. Thus, the legitimacy of the upper-level authority has to be justified on the basis of lower-level organizations. According to this definition, the Swiss constitution comes very close to the core meaning of a federalist organization. Inspired by the US constitution of 1787, the fathers of the Swiss constitution have reached national unity by a very large autonomy of the sub-federal jurisdictions in 1848.¹ Anyhow, the Swiss federalism has its own peculiarities. It differs in many respects from the federalist organization of other countries.

The aim of this chapter is twofold. First, we summarize the main characteristics of federalism in Switzerland. Second, we show that it can be adequately characterized by Hirschman's (1970) concept of exit, voice, and loyalty. We argue that the interaction of these institutions can make a constitution self-enforcing. And we will show that the Swiss federalism, far from being perfect, works well in reality.

The chapter proceeds as follows. In Section 2, some stylized facts about federalism in Switzerland are presented. In Section 3, we argue that fragmentation and fiscal autonomy in the Swiss federalism provide substantial restrictions on government behaviour and, therefore, lead to a comparably

smaller size of the public sector. Section 4 deals with the voice mechanism. Direct democratic institutions are a suitable means to reduce principal agent problems between the voters and their representatives. Direct democracy enriches politics with competition. In Section 5, we raise the issue of loyalty and its connection with exit and voice. Section 6 presents some conclusions.

Stylized facts about Swiss federalism

At first sight, the federalist system of Switzerland is similar to those of Germany, Australia, Canada, Austria and the United States. All these countries have a federalist constitution where important policy tasks are at least partly reserved for sub-national jurisdictions. However, there are institutional characteristics in Switzerland leading to a special federalist system in terms of scale, autonomy and democratic decision-making.

Switzerland is characterized by a high diversity of geographical conditions, economic potential, size and degree of democratic institutions. Its small scale federalism is organized on three governmental layers: the central government, 26 cantons and some 3,000 municipalities. The sub-national jurisdictions are very small. The average canton has 270,000, the average municipality 2,400 inhabitants. The tasks of the central government are explicitly enumerated in the federal constitution. Competence on major policy fields, especially fiscal affairs, is extensive on the cantonal and municipal level. The cantons have full autonomy to the extent that it is not restricted by the federal constitution. Constitutional changes can only be effected by voters' approval (compulsory referenda) and additionally need the support of a majority of the cantons. The cantons levy their own income and property taxes. The tax tariffs, tax rates and tax exemptions are in the cantonal competence. Even the municipalities are autonomous in deciding on the tax burden. They normally levy their taxes as a per centage of the cantonal level. This increases the autonomy of the sub-national jurisdictions on the expenditure side, too. As a consequence fiscal competition is very strong in Switzerland.

The central government has the right to raise its own income tax. The federal income tax is based on a sunset legislation. It must be renewed by popular vote by 2006 at the next. Fiscal policy on the upper level is mainly based on consumption taxes. Table 8.1 shows the revenue shares of the three levels. They have been rather stable during the last decades.

The democratic institutions in Switzerland are closely related to the federalist structure. Instruments of direct democracy are established on all three levels of government. On the central level, the popular initiative and the referendum allow people to influence parliamentary decisions. The initiative is a formal proposition to modify the constitution. It must be signed by at least 100,000 citizens within a period of 18 months. The share of the required voter signatures fell from 7.5 per cent in 1893 when the initiative was introduced to some 2 per cent today (Kleinewefers, 1995). The Federal Council and the Federal Assembly have a kind of advisory position. Their constitutional

Table 8.1 Structure and trend of public revenue in Switzerland, by % of total revenue

| | 1950 | 1960 | 1970 | 1980 | 1990 | 1997 |
|---------------------------|------|------|------|------|------|------|
| Federal level | | | | | | |
| Total taxes | 84.0 | 84.1 | 90.0 | 88.8 | 93.7 | 89.3 |
| Income and property taxes | 32.8 | 24.4 | 28.3 | 33.2 | 34.4 | 37.5 |
| Consumption taxes | 51.2 | 59.7 | 61.7 | 55.6 | 51.9 | 51.8 |
| User charges | 6.5 | 7.5 | 4.5 | 4.2 | 3.9 | 2.4 |
| Cantonal level | | | | | | |
| Total taxes | 49.5 | 55.9 | 52.9 | 54.1 | 57.4 | 46.0 |
| Income and property taxes | 44.5 | 49.7 | 47.9 | 50.1 | 45.1 | 36.9 |
| Consumption taxes | 5.0 | 6.2 | 5.0 | 4.0 | 3.3 | 3.0 |
| User charges | 16.3 | 15.6 | 12.4 | 14.2 | 15.9 | 15.1 |
| Vertical transfers | 24.6 | 20.9 | 29.3 | 27.1 | 24.0 | 27.7 |
| Municipal level | | | | | | |
| Total taxes | 55.8 | 60.9 | 58.1 | 51.0 | 53.2 | 47.4 |
| Income and property taxes | 55.1 | 60.1 | 57.7 | 50.8 | 46.0 | 42.1 |
| Consumption taxes | 0.7 | 0.8 | 0.4 | 0.2 | 0.3 | 0.1 |
| User charges | 24.0 | 14.9 | 15.4 | 25.6 | 23.9 | 26.8 |
| Vertical transfers | 9.6 | 17.1 | 17.7 | 16.1 | 18.6 | 17.8 |

Source: Feld (2000b: 165).

proposals and counter-proposals must be confirmed by a majority of voters and cantons in ballots. The referendum, on the other hand, is a constitutional right of the citizens to approve federal laws and treaties. There exists a mandatory referendum for revisions of the constitution, urgent acts without constitutional basis and international treaties. The optional referenda against parliamentary decisions has to be signed by 50,000 citizens within 100 days after the publication of the decree. This means that today only about 1 per cent of the voters have to give their signature to launch a ballot whereas in 1879 this share was of nearly 5 per cent (Kleinewefers, 1995).

Over the past 150 years, there were 194 mandatory and 137 optional referenda on the national level. In 35 per cent of all cases popular referenda have corrected the decisions of the federal parliament (25 per cent for mandatory referenda and 50 per cent for optional referenda). Since 1891, when the popular initiatives were established, 104 initiatives have been launched. They were less successful. The acceptance rate was of 10 per cent only (Swiss Statistical Yearbook, 2000). However, by way of counterproposals an indirect success is often achieved. The parliament accepts a part of the popular initiative when presenting a counter-proposal, which the voters in many cases accept at the ballot.

On the cantonal and local level popular rights are even more developed. Recently, Stutzer and Frey (2000) proposed an index of democracy for the Swiss cantons (cf. Figure 8.1). They include the constitutional initiative, the legislative initiative, the legislative referendum and the fiscal referendum on

Index of direct democracy

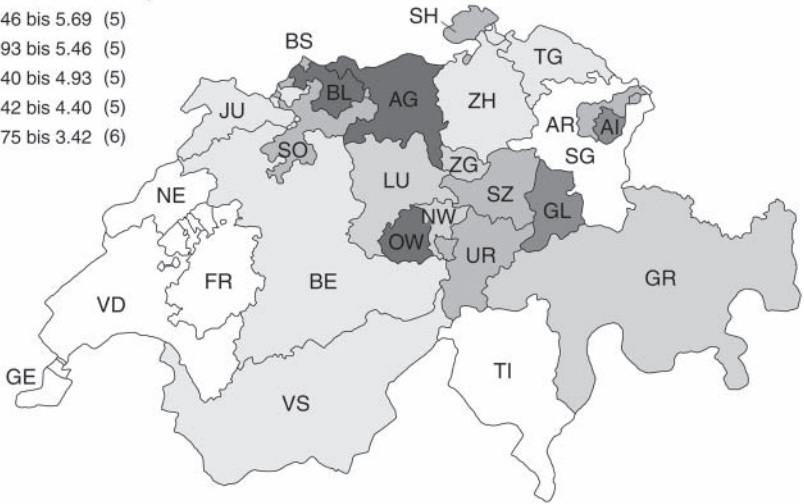
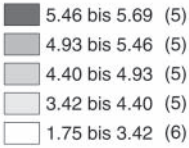


Figure 8.1 Index of democracy for Switzerland.

Note: the figure shows the extent of direct democratic rights in the 26 Swiss cantons. The abbreviations stand for the following cantons: Aargau (AG), Appenzell-Innerrhoden (AI), Appenzell-Ausserrhoden (AR), Bern (BE), Basel-Landschaft (BL), Basel-Stadt (BS), Fribourg (FR), Genève (GE), Glarus (GL), Graubünden (GR), Jura (JU), Luzern (LU), Neuchâtel (NE), Nidwalden (NW), Obwalden (OW), Schaffhausen (SH), Schwyz (SZ), St. Gallen (SG), Solothurn (SO), Thurgau (TG), Ticino (TI), Uri (UR), Vaud (VD), Valais (VS), Zug (ZG), Zürich (ZH).

an index to reflect the extent of direct democratic rights on the cantonal level in a range between 1 (lowest degree) and 6 (highest degree).

In 1959, Switzerland established a new system of intergovernmental transfers and revenue sharing (see Tables 8.2 and 8.3). This transfer system constitutes an important policy instrument in the hands of the federal government. The Swiss grants-in-aid are either conditional or unconditional. In accordance with the normative theory of public finance (e.g. Musgrave, 1959) and fiscal federalism (e.g. Oates, 1972), the former serve as a means to internalize spillover benefits whereas the latter are designed to improve the fiscal capacity of the poorer jurisdictions. Conditional grants normally take the form of matching grants. The recipients are bound by various restrictions so that the subsidies give local and cantonal decision-makers incentives to incorporate spillover benefits into their decision-making calculus. If regional disparities are to be reduced, unconditional grants should be designed as lump-sum transfers and revenue sharing. However, these instruments are not very important in the Swiss system of intergovernmental grants nowadays.

During the last decades, the system of intergovernmental transfers and revenue sharing in Switzerland has become very intransparent in three respects (Frey *et al.*, 1994). First, the mixture of instruments targeting at efficiency as

Table 8.2 Revenues of the three levels of government (%)

| | <i>Federal level</i> | | | <i>Cantonal level</i> | | | <i>Communal level</i> | | |
|-----------------------------------|----------------------|-------|-------|-----------------------|-------|-------|-----------------------|-------|-------|
| | 1975 | 1985 | 1995 | 1975 | 1985 | 1995 | 1975 | 1985 | 1995 |
| Income and property taxes | 32.2 | 38.6 | 33.7 | 51.5 | 51.7 | 49.3 | 58.3 | 49.8 | 47.4 |
| Consumption and expenditure taxes | 57.0 | 54.0 | 56.6 | 3.7 | 3.6 | 3.1 | 0.2 | 0.2 | 0.2 |
| Fiscal monopolies and licences | 2.2 | 1.8 | 0.6 | 0.7 | 0.7 | 1.2 | – | – | 0.3 |
| Revenues from public property | 3.3 | 2.2 | 5.6 | 3.3 | 3.7 | 4.1 | 7.2 | 6.0 | 6.8 |
| Revenue sharing | – | – | – | 5.7 | 5.6 | 6.7 | 1.2 | 1.3 | 3.0 |
| Grants-in-aid | 0.3 | 0.1 | 0.1 | 22.5 | 20.4 | 19.7 | 16.9 | 17.7 | 16.4 |
| Indemnities and sales | 4.9 | 3.3 | 3.3 | 12.6 | 14.3 | 15.9 | 16.3 | 25.0 | 26.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Federal Ministry of Finance.

Table 8.3 Share of federal aid on total cantonal revenue, 1997

| <i>Cantons</i> | <i>%</i> |
|-----------------------------|----------|
| Zurich (ZH) | 14.2 |
| Berne (BE) | 29.3 |
| Lucerne (LU) | 27.5 |
| Uri (UR) | 54.0 |
| Schwyz (SZ) | 36.8 |
| Obwalden (OW) | 49.3 |
| Nidwalden (NW) | 30.0 |
| Glarus (GL) | 24.7 |
| Zoug (ZG) | 22.8 |
| Fribourg (FR) | 36.8 |
| Solothurn (SO) | 29.0 |
| Basel-City (BS) | 9.8 |
| Basel-Country (BL) | 16.0 |
| Schaffhausen (SH) | 18.5 |
| Appenzell Ausserrhoden (AR) | 29.6 |
| Appenzell Innerrhoden (AI) | 39.5 |
| St. Gallen (SG) | 23.8 |
| Grisons (GR) | 40.2 |
| Aargau (AG) | 18.0 |
| Thurgau (TG) | 24.2 |
| Ticino (TI) | 24.4 |
| Vaud (VD) | 20.9 |
| Valais (VS) | 42.2 |
| Neuchâtel (NE) | 36.2 |
| Geneva (GE) | 9.9 |
| Jura (JU) | 53.1 |

Source: Stalder (1999: 81).

well as intercantonal redistribution often leads to curious results. Neither of the two objectives are attained in an efficient manner. Second, the system of intergovernmental grants is mainly based on vertical transfers from the federal to the cantonal level. In order to internalize benefit spillovers, horizontal transfers would be more appropriate. Third, transfers for equalization purposes are often developed as conditional grants. This induces the cantons and municipalities to deviate from the preferences of their own constituencies. Due to these defects, a fundamental reform of the intergovernmental transfers system is planned for the next years.

Federalism by autonomy and fragmentation: the role of exit

In this section, we will analyze the impact of the federalist institutions on the fiscal behavior of the sub-federal governments. For a public choice approach of fiscal federalism in Switzerland, Hirschman's (1970) concept of the interaction between exit, voice, and loyalty offers an appropriate guideline. Three reasons support this view. First, a high degree of fragmentation and the far reaching fiscal autonomy of the small sub-national jurisdictions represent favourable conditions for migrations. The exit option is easy to take as transaction costs are low. Thus, the competitive pressure of fiscal federalism is expected to be particularly pronounced in Switzerland. Second, on the sub-national level a huge variety of institutions of direct democracy is established, encouraging political participation by the citizens (voice). Third, given the inter-jurisdictional variety, the conditions for promoting loyalty by a specific institutional setting can be investigated (loyalty).

Our starting point is that federalist institutions matter for government behaviour. According to Stigler and Becker (1977) this is sensible since government behaviour can be explained by different institutional settings rather than by the regional variety of voter preferences. For our analysis, two institutions of interest are crucial: fragmentation and fiscal autonomy.

In 1956, Tiebout published his famous paper on fiscally induced migration. He provides a solution to Samuelson's (1954) argument that there is no demand-revealing-process for individual preferences in the case of public goods. By selecting the jurisdiction which can best satisfy the preferences of consumer-voters, the process of 'voting with one's feet' will lead to an efficient allocation of local public goods. However, this only holds under rather restrictive assumptions. Intergovernmental competition as an efficient demand-revealing process for local public goods implies that, among other things, consumer-voters are fully mobile, there is a large number of communities to choose and consumer-voters are fully informed about the performance of local governments. Since these assumptions are not fulfilled in reality, the predictions of an efficiency-enhancing Tiebout competition has been widely discussed.²

Years later, the Leviathan hypothesis – based on Tiebout's reflection – led to government size interpretations. In contrast to Tiebout, Brennan and Buchanan (1977, 1978, 1980) do not make statements about government

efficiency. In their analysis they assert that increased fiscal decentralization will lead to a smaller government size. Their hypothesis spots governments as a revenue-maximizing Leviathan exploiting its citizenry through excessive taxation. They argue that larger governmental units are less efficient because each jurisdiction exploits the spatial monopoly unless it is constrained by the exit threat. In order to restrict the monopoly power of a Leviathan government, fiscal decentralization is needed. The mobility of voters forces governments to implement policy reforms in accordance with the preferences of their inhabitants. The more fragmented a country, the harder these constraints are limiting the discretionary leeway of the local and cantonal politicians. In other words, fiscally induced migration in a highly centralized country will disappear since its transaction costs are too high. Hence, a high degree of fragmentation offers exit possibilities for comparably low transaction costs and therefore serves as a substitute for the incomplete political competition among parties and candidates.

Though geographical fragmentation is a necessary condition of a sustainable federalism, it is not sufficient. Fiscal autonomy on the state and local level has to be secured so that lower-level governments can decide by themselves which tasks to tackle. The federal government should be restricted to policy tasks with the characteristics of national public goods.

Empirical investigations have tried to provide evidence on the relative advantage of decentralization. The results are mainly drawn from the US American or Canadian sub-national level. While Oates (1985), Nelson (1986) and Forbes and Zampelli (1989) fail to support the Leviathan hypothesis, Nelson (1987), Zax (1989), Joulfaian and Marlow (1990) and Grossman and West (1994) provide evidence in favour of the predictions made by Brennan and Buchanan. Strikingly, the effect of decentralization on the size of government can be traced back to the level of data aggregation and may reflect two different effects of decentralization. On the one hand, according to Wallis and Oates (1988), it is reasonable that decentralization on the local level leads to a larger size of government since individuals have more control over public decisions and therefore are ready to transfer a broader range of functions and responsibilities to the local officials. On the other hand, decentralization restricts the overall government size. Therefore, the contradictory empirical results do not necessarily have to be inconsistent. Evidence for this inverse relationship between the level of decentralization and the public sector size was brought up by Joulfaian and Marlow (1990) and recently underlined by Shadbegian (1999).

For Switzerland, there is only little evidence of the effects of fiscal decentralization on the size of government. In a recent study, Schaltegger (2001) uses a pooled cross-section analysis from 1988 to 1998 to investigate the effects of fragmentation and fiscal autonomy. The results strongly support the predictions made by Brennan and Buchanan. In accordance with empirical studies in other federalist countries, in Switzerland these fiscal institutions matter in public decision-making and result in a significantly smaller size of government.

Critics of the Leviathan hypothesis argue that analysing government size provides no information about efficiency. Moreover, it is claimed that systems competition between governments induced by the mobility of voters results in serious allocative distortions. Local officials are forced to hold down tax rates and consequently the provision of public goods. As a result, fiscal competition among jurisdictions leads to a 'race-to-the-bottom'. Therefore, it may be ruinous for governments to compete for footloose tax payers (Sinn, 1997).

This line of argumentation has become quite powerful in the political discourse. Tax harmonization is a political claim in Switzerland, too. In a recent study, Feld (2000a) shows that a 'race-to-the-bottom' for redistributive taxation cannot be detected with respect for the sub-national level. He concludes that the reason for this result lies in specific institutional arrangements which stabilize decentralized redistribution. Feld puts emphasis on the aspect of procedural fairness by popular participation rights in politics: 'The strong fiscal competence of local jurisdictions and cantons may not lead to the problems associated with fiscal competition if they are accompanied by elements of direct democracy at least on fiscal issues' (p. 154).

In addition, there is a controversial debate on the relative advantage of larger or smaller jurisdictions. While federalism is seen to be more efficient in serving citizen's satisfaction, unitary systems permit the exploitation of economies of scale in the provision of public goods (Oates, 1999). More precisely, with a pure public good in the Samuelson sense, consumption by one person does not rival consumption by others. The costs of providing public services are independent of the number of users. Especially in Switzerland, where jurisdictions are particularly small (the smallest canton accounts for some 15,000 inhabitants), mergers should theoretically allow to exploit economies of scale. There is a huge empirical literature on increasing returns to scale challenging the presumption of non-rivalry of publicly provided goods (for a review compare Reiter and Weichenrieder, 1997).³ For Switzerland, there are studies by Pommerehne (1974), Pommerehne and Frey (1976), Pommerehne (1978), Blankart (1978) and Schaltegger (2001). They find in general that the publicly provided goods on the sub-federal level have roughly the same amount of rivalry as private goods. Thus, there is no evidence that larger jurisdictions can be managed more efficiently than smaller units due to economies of scale.

A possible explanation for the so-called urban crisis comes from a lack of fiscal equivalence in the Swiss federalism. It is argued that central cities are carrying the financial burden of providing public goods to their entire agglomeration, whereas the suburbs can benefit from these externalities without adequately sharing the costs. Therefore, strong incentives for a flight to the suburbs may occur and provoke a fiscal erosion of central cities. However, one possibility to internalize inter-jurisdictional benefit spillovers can be seen in a Coasian bargaining process between involved parties (Inman and Rubinfeld, 1997). Indeed, Pommerehne and Krebs (1991) report the case of the city of Zurich, where the suburbs and the central city have found a way in solving spillover problems by agreement.

Summing up, Swiss federalism offers exit options for unsatisfied voters, as due to its high degree of fragmentation and fiscal autonomy, transaction costs are low. Fiscal decentralization serves as a hard budget constraint on the decisions of cantonal and municipal governments. But transaction costs for migration will not create a perfect contestable market even when there is a high degree of fiscal decentralization. Therefore, another instrument is needed to limit government discretion. This instrument is democratic competition (voice).

Federalism preserving democracy: the role of voice

Federalism can only be a successful limitation for policy makers when its institutions are self-enforcing. Thus, we may ask which institutions make Swiss federalism sustainable. In his seminal work, Downs (1957) concludes that democratic competition has much in common with competition in the free-market economy. However, electoral competition in a framework of representative democratic institutions will not necessarily lead to a policy outcome according to the preferences of the median voter (Pommerehne and Schneider, 1978). There is a leeway for politicians to deviate from the voter preferences and to pursue their own ideological and economic aims. There is evidence for ideological shirking in politics (Kalt and Zupan, 1984, 1990).

Since the sub-national level in Switzerland has many specific characteristics concerning direct democratic institutions, it provides an appropriate laboratory to analyse the influence of different democratic arrangements on public decision-making. Pommerehne (1978) shows for 111 Swiss cities that there is a significant difference in budgetary decision-making under direct democratic legislation compared to purely representative democracies. A major reason lies in the power of agenda-setting (Frey and Bohnet, 1993). Although the parliamentary opposition has strong incentives to raise issues unwelcome to the government, they do not put things on the agenda which are disadvantageous for politicians as a whole. In contrast, under direct democratic circumstances, outsiders can put issues on the political agenda via the popular initiative. Frey (1994) argues that 'popular referenda are feasible and effective institutions to fulfill individual preferences and are able to break the cartel of politicians directed against voters and taxpayers' (p. 338).

Assuming that voters are fiscal conservatives (Peltzman, 1992), the instability of a cartel among politicians due to directly democratic rights should have sizeable effects for public households. Feld and Matsusaka (2000) provide evidence that fiscal referenda in Swiss cantons reduce the budget by 17 per cent for the median canton.⁴ Moreover, there is also evidence that the voters care more about fiscal discipline in terms of public debt than their elected representatives in Switzerland (Feld and Kirchgässner, 1999). Finally, Feld and Savioz (1997) show that the cantons with stronger elements of direct democracy enjoy a per-capita income 5.4 per cent higher than in cantons with weakly established popular rights. Freitag and Vatter (2000) underline this

conclusion. However, they emphasize that the use of instruments of direct democracy ('rules in use') is of greater importance than the pure existence of such instruments ('rules in form').

Discussions prior to votes is a major aspect of decision-making in a direct democracy. Bohnet and Frey (1994) argue that the process of verbal exchange puts new arguments on the political agenda which would not have been discussed without direct democratic institutions. This gives politicians information about the preferences of the voters on political topics. Additionally, it diminishes the informational advantage and thus the discretionary leeway of political agenda setters to deviate from voters' wishes. Feld and Kirchgässner (2000) assert that elements of direct democracy may also enhance citizen's willingness to bear information costs. This is of importance, because public decisions have a common pool character for voters, so that they have very little incentive to be well-informed when making decisions at the polls. But in contrast to representative democratic circumstances, the fundamental problem of 'rational ignorance' is less grave under direct democratic circumstances. Collecting information about political issues that affect their personal situation is important for the voters. Therefore, it is rational for them to collect information about policies and to engage in discussions evaluating different opinions.

Moreover, direct democracy has an impact on the degree of centralization. Harmonization by delegating competence from lower-level to upper-level governments weakens the advantages of a federalism. Nevertheless, most federalist countries are confronted with a secular trend towards centralization, for politicians on the lower levels have strong incentives to form tax cartels in order to avoid the disciplinary power of fiscal federalism. Tax harmonization and co-ordination of expenditure across jurisdictions are the easiest way to achieve this goal. However, such cartels are inherently unstable. The federal government is needed to enforce their stability, for example, by vertical intergovernmental grants. In return for an appropriate share of the sub-federal tax receipts, the central level penalizes cartel escapees to assure the collusive agreements (Brennan and Buchanan, 1980). According to Blankart (2000), the low level of government centralization in Switzerland compared to Germany can be explained by institutions of direct democracy. In Switzerland, the federal government is only allowed to have new tax competences when the majority of the voters and cantons give their approval. Thus, referenda represent a strong instrument to weaken the cartel stability for collusive agreements even though it cannot prevent them.

All in all, direct democratic institutions play an important role in securing the geographically fragmented and fiscally autonomous structure of sub-federal governments in Switzerland. Direct democracy makes federalism a self-enforcing institution because it credibly limits the power of politicians to discretionarily change the constitutional rules.

The interaction of exit and voice: the role of loyalty

The interpretation of exit and voice for the Swiss case is clear since it can be associated with specific institutions. This does not hold for loyalty. In his essay on the interaction between exit and voice, Hirschman (1970: 77) postulates: 'A more solid understanding of the conditions favouring coexistence of exit and voice is gained by introducing the concept of loyalty'. Therewith, rigidities of migration cannot only be explained by transaction costs and sunk costs due to investments in specific assets like reputation, business relation, linguistic proficiency, social network and friendship (Wohlgemuth and Adamovich, 1999). Feld (1997) shows that there is a trade-off between exit and voice. The stronger the direct democratic rights are established, the lower is the probability that voters migrate. This indicates that citizens esteem the ability to influence decisions in their jurisdiction. Accordingly, loyalty of members of an organization is endogenously influenced by institutions which promote trust. Feld using a capitalization approach provides empirical evidence that the institution of direct democracy on the Swiss sub-federal level can promote loyalty. More precisely, fiscal competition is particularly pronounced in purely representative cantons, whereas in cantons with a high degree of direct democracy exit is less often used.

The communicative aspect of direct democracy may also enhance people's consideration about fairness in the decision-making process (Frey and Bohnet, 1995). People do not follow the law because they are forced to do so, but because they are convinced that the law is justified (Tyler, 1990). The procedural effect of decision-making, especially direct democratic rules, enhance the law's legitimacy. This point is stressed by Pommerehne and Weck-Hannemann (1996) in the specific case of tax evasion in Switzerland. They show that tax morale is higher in cantons with direct legislation than in the other ones. Political participation allows citizens to exert strong control over government decisions. The willingness and loyalty to contribute to the financing of government activities is higher. In a recent study, Feld and Frey (2000) argue that the interaction of taxpayers and tax authorities is relevant for tax morale. The implicit psychological contract between principals and agents can be supported by direct political participation rights. In direct democracies, taxpayers are treated with more respect than in purely representative democracies. This reciprocity stabilizes the contract between taxpayers and tax authorities.

Frey and Stutzer (2000) provide empirical evidence that the institutional arrangements determine the subjective well-being. They conclude that in Switzerland direct democracy together with federalism in the sense of local autonomy has a strong effect on the reported happiness. There are two important aspects. First, in direct democracies agents are forced to follow the voter preferences. Second, the voters derive a benefit from direct participation in the decision-making process. Thus, institutional determinants can promote a relationship between principals and agents based on trust.

Table 8.4 Empirical studies on the impact of federalism on economic policy in Switzerland

| <i>Hypothesis</i> | <i>Authors</i> | <i>Sample</i> | <i>Time period</i> | <i>Results</i> |
|-------------------|--|--------------------------|--------------------------|--|
| Exit | Schaltegger | 26 cantons | 1988–1998 | Federalism by fragmentation leads to lower public expenditure/revenue |
| | Schaltegger | 26 cantons | 1988–1998 | Federalism by fiscal autonomy leads to lower public expenditure/revenue |
| Voice | Schaltegger and Kütrel | 26 cantons | 1980–1998 | Federalism leads to lower public expenditure, revenue and tax receipts |
| | Feld and Matsusaka | 26 cantons | 1986–1997 | Fiscal referenda lead to 17% lower per-capita expenditure |
| | Feld and Kirchgässner | 131 cities | 1990 | Direct democracy leads to a lower public debt |
| | Feld and Savioz | 26 cantons | 1982–1993 | Cantons with strong elements of direct democracy have a 5.4% higher GDP |
| Loyalty | Freitag and Vatter | 26 cantons | 1983–1997 | Cantons which use elements of direct democracy, to a greater extent, have a higher GDP |
| | Schaltegger and Kütrel | 26 cantons | 1980–1998 | Direct democracy leads to lower public expenditure, revenue and tax receipts |
| | Feld | 26 cantons | 1990 | Direct democracy leads to less migration, i.e. to a higher loyalty towards decisions of the government |
| | Pommerehne and Weck-Hannemann Feld and Frey | 25 cantons 26 cantons | 1965, 1970, 1978 2000 | Direct democracy leads to lower tax evasion Direct democracy is an asset to secure the implicit contract between the voters and the authorities |

Conclusion

In this chapter we have analysed Swiss federalism using Hirschman's three concepts of response to decline in firms, organizations, and states: exit, voice, and loyalty. Influenced by his observation on rail transport in Nigeria, Hirschman has developed a concept to illuminate the variety of functional behaviour in economic, social and political systems. He writes (1970: 7): 'I had come upon a manner of analyzing certain economic processes which promised to illuminate a wide range of social, political, and indeed moral phenomena.'

The concept of exit, voice, and loyalty is a useful means to understand the basic procedures in Swiss federalism, too. In our analysis we interpret exit by the extent of decentralization on the sub-national level. More precisely, our analysis examines the impact of fragmentation and fiscal autonomy for the fiscal performance of a canton. Theoretical arguments as well as empirical findings strongly support the view that exit represents a suitable way to discipline public decision-makers. Federalism does not only serve to adapt public services to the regionally different preferences of the citizens. It is also an effective instrument to restrict the politicians' discretionary leeway to deviate from citizens' wishes. The fear that systems competition between jurisdictions, as it results from fiscal decentralization, could lead to a 'race-to-the-bottom' cannot be proved for the Swiss case. Despite the strong degree of fiscal decentralization, a considerable amount of tax redistribution on the cantonal level can be observed.

Since a federalist constitution by itself is not sustainable the question arises: what is the institutional reason that makes a federal system self-enforcing? The Swiss sub-federal level is characterized by a large diversity of arrangements in direct democracy. It therefore represents an ideal object to examine the effects of voice in addition to exit. Empirical evidence supports the view that differences in popular participation rights on the cantonal level reflect major differences in policy outcome. Direct legislation urges politicians to adapt their policy choices according to the will of the citizens. This results in a better fiscal performance. In addition, voice represents a strong means to control centralization. However, voice does not only serve as an instrument to discipline incumbents. It also promotes loyalty between the voters and their representatives. Accordingly, voice is an asset to secure the implicit contract between principals (voters) and agents (representatives). It is direct democracy that makes federalism self-enforcing.

In this chapter we have detected some institutional arrangements for government size and stability in the Swiss federalism. Are there any suggestions for the European Union one could feel comfortable in recommending? We are reluctant to do so. In many ways Switzerland is similar to the European Union: different cultural backgrounds, languages, size and economic potential of and within the member countries. Nevertheless, there is little evidence in favour of the transferability of institutions. The question of how, when and why

governments should adopt institutional reforms remains therefore an important challenge for future research.

Notes

- 1 Blöchliger and Frey (1992) provide an economic interpretation of the emergence of federal structures in Switzerland.
- 2 For a review of the empirical literature, compare Dowding, John and Biggs (1994).
- 3 Borchering and Deacon (1972) were among the first to empirically investigate the effect of jurisdictional size on government expenditure.
- 4 A comparable study by Matsusaka (1995) comes to similar results with respect to the United States.

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9 Fiscal institutions, regional adjustment and convergence in Canada's currency union

Lessons for EMU

Tracy R. Snoddon

Introduction

The formation of a currency union requires that members give over control of monetary policy to a single, common authority and, in exchange, members share in the benefits of a common currency. In the case of Canada's currency union, control of monetary policy lies with the Bank of Canada; for countries participating in the relatively young EMU, the responsibility for monetary policy has shifted from national central banks to the European Central Bank. To support their respective currency unions, Canada and the EMU have adopted different fiscal institutions. In particular, fiscal transfers in Canada, large by international standards and an integral feature of Canada's model of fiscal federalism, are comparatively small in the European Union. The EMU has instead adopted a policy of tight fiscal rules to which no formal equivalent exists in Canada.

This chapter examines the contribution of these different fiscal institutions to two important issues in the context of a common currency and a single monetary policy – regional economic adjustment and stabilization and long run economic convergence. The EMU's fiscal harmonization policies and explicit convergence criteria aim to reduce long run economic divergences between members and enhance economic and social cohesion in the currency union. With adherence to the fiscal criteria, members acquire the fiscal room to manage their own short run fluctuations and thereby reducing the need for stabilizing fiscal transfers. The latter goal is important, since with the move to a single currency, individual members lose the tool of independent monetary policy for managing economic fluctuations. By promoting economic convergence among its members, pressures for redistributive transfers in the EMU can be reduced. In theory, this is a prudent strategy since the potential of the EU government to make large fiscal transfers is restricted by its narrowly defined responsibilities and comparatively small budget. In Canada, the federal government's redistributive fiscal transfers target economic disparities. Fiscal transfers also help stabilize regional economies in the presence of differential

shocks. Relative to the common EU government, Canada's federal government is comparatively unrestricted in its capacity to make and finance such transfers.

Given the differences in the approaches of Canada and the EMU, the obvious question is whether fiscal transfers and fiscal rules are *close* substitutes for addressing long run economic disparities and for helping members of a currency union adjust to short run, country-specific shocks? If not, are there inherent differences in the functioning of the two currency unions that limit the substitutability between these different approaches? To address these questions, this chapter investigates the contribution of Canada's system of fiscal federalism to long run economic convergence and to short run regional adjustment. An overview of the most salient features of fiscal federalism in Canada is presented in section 2. This section outlines the complex array of fiscal arrangements that, in addition to the constitution, determine the assignment of responsibilities and powers to different governments in Canada. For comparison, key fiscal institutions in the EMU are also discussed. Section 3 assesses the impact of Canada's system of fiscal federalism on the range and effectiveness of regional adjustment to differential shocks. The section compares the impact of fiscal transfers on regional adjustment in Canada with the European Union's system of fiscal rules. Both currency unions support long run economic convergence. Section 4 assesses the contribution of fiscal transfers in Canada and fiscal rules in the EMU to this goal. A summary of the chapter's main findings and concluding remarks are presented in the final section.

Comparative overview of fiscal institutions in Canada and EMU

It is necessary to first outline some important design features of the Canadian federation and the link between these features and the goals of regional adjustment, stabilization and convergence. This section highlights key differences in fiscal institutions in Canada and in the EMU. A brief description of the Canadian federation is followed by a review of the powers and responsibilities of the federal and provincial governments and their EMU counterparts. Fiscal transfers and fiscal rules in the two currency unions are then outlined. The section ends with a brief description of harmonization policies in the two currency unions.

Allocation of responsibilities and finances

Canada began as a federal system in 1867 with four provinces – Ontario, Quebec, New Brunswick and Nova Scotia. There are now ten provinces and three territories, following the establishment of the Nunavut Territory in 1999. Canada's original Constitution of 1867 (and subsequent amendments) describes the exclusive powers and responsibilities of the federal and provincial governments.¹ The federal government has authority to legislate in the areas of trade, commerce, defence, money and banking, and criminal law.

Residual powers are also assigned to the federal government. Both levels of government can and do engage in redistribution, although the federal government has the dominant role in this regard. On the revenue side, all major tax fields (with the exception of property taxes) are co-occupied by the federal and provincial governments.

The fiscal powers of the common government for the EMU are, in comparison, quite limited. Since its powers are derived from its members, it has only an indirect electoral and fiscal base. The European Union relies primarily on transfers from its members. For 1998, roughly 16 per cent of EU resources came from agricultural and customs duties while approximately 40 per cent came from the VAT base and another 44 per cent from GNP-based contributions from members.² Members and their respective governments have authority for most areas of spending. In addition to monetary policy, the common EU government has responsibility for agricultural policy, competition policy, the Structural and Cohesion Funds, and for overseeing fiscal harmonization policies and monitoring members' fiscal performance.

In Canada, the Constitution assigns exclusive responsibility for matters of a local nature including health, welfare, and education to provincial governments. Owing to the decentralized nature of the Canadian federation and the provinces' constitutionally-derived powers, provinces are roughly on par with member countries in the EMU. With few constraints, both provinces and EMU members can levy taxes, determine spending priorities, incur deficits and debts, and borrow on international markets.

Over time, the power of provincial governments has expanded as the Canadian federation has become more decentralized. Figure 9.1 shows the federal government's share of combined federal and provincial revenues before transfers to provinces and its share of combined expenditures after transfers from 1961 to 1999. The federal government's revenue share was 69 per cent in 1961. By the late 1970s, it fell to around 50 per cent where it has remained fairly stable. The federal government's expenditure share has followed a similar pattern, falling from 61 per cent in 1961 to a relatively stable share of 45 per cent from 1970 to 1990. In contrast, the common EU government's share of revenues before intergovernmental transfers was 1.2 per cent in 1996.³

Several factors have contributed to the decentralization trend in Canada. The tremendous growth in demand for health, education and social services, all areas of exclusive provincial domain, has increased the expenditure position of the provincial governments *vis-à-vis* the federal government. By necessity, provincial governments have increased their revenue efforts. The increased use of sales and excise taxes and a general increase in income taxes over time have significantly bolstered the revenue position of the provinces.

Fiscal transfers

As is common with many federations, intergovernmental grants play an important role in addressing the vertical and horizontal imbalances that arise

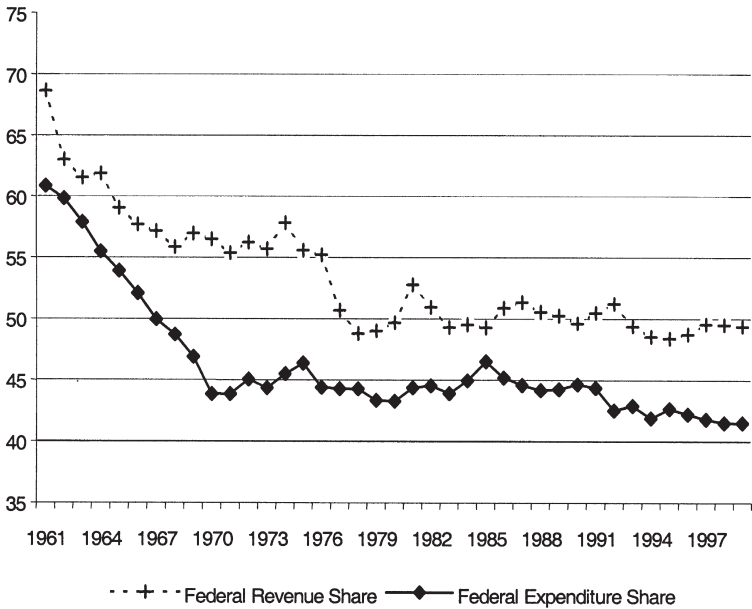


Figure 9.1 Federal revenue share before transfers and federal expenditure share after transfers.

Source: data are from Finance Canada, *Fiscal Reference Tables 2000* (Ottawa: Government of Canada, 2001) and Perry, David, *Financing the Canadian Federation 1867 to 1995: Setting the Stage for Change* (Toronto, Canadian Foundation, 1997).

in federations with expenditure decentralization and centralized tax collection. In Canada, the constitutional assignment of functions and responsibilities is supplemented with an extensive system of intergovernmental fiscal arrangements that include federal grants to provinces, federal transfers to persons, revenue guarantees, stabilization and statutory subsidies. In this section, fiscal grants to governments are discussed. Transfers to persons and federal taxes are also briefly examined.⁴

Grants

Federal grants to provinces are arguably one of the most significant, and controversial, features of fiscal federalism in Canada. Grants are an important provincial revenue source, accounting for roughly one-fifth of provincial revenues. Table 9.1 shows the percentage of provincial revenue derived from transfers for selected years. Two observations stand out. Large differences exist in the extent to which provinces rely on grants and, for all provinces except Manitoba, the importance of grants as a revenue source has declined over time.

There are two main types of grants to provinces. Stabilization payments to provinces are explicitly aimed at stabilizing short run regional fluctuations.

Table 9.1 Federal cash transfers as a percentage of provincial revenue

| | 1969–70 | 1990–91 | 1999–2000 |
|------------------------|---------|---------|-----------|
| Newfoundland | 54.8 | 47.1 | 43.8 |
| Prince Edward Island | 55.1 | 44.1 | 39.3 |
| Nova Scotia | 45.9 | 40.5 | 37.2 |
| New Brunswick | 43.2 | 39.6 | 38.6 |
| Quebec | 21.8 | 20.8 | 13.4 |
| Ontario | 16.1 | 13.4 | 9.4 |
| Manitoba | 27.0 | 36.2 | 32.6 |
| Saskatchewan | 24.9 | 32.0 | 20.6 |
| Alberta | 17.1 | 16.7 | 8.1 |
| British Columbia | 15.0 | 14.7 | 11.9 |
| Provincial/Territorial | 21.6 | 20.7 | 14.9 |

Sources: Perry, David, *Financing the Canadian Federation, 1867 to 1995: Setting the Stage for Change* (Toronto: Canadian Tax Foundation, 1997) and Finance Canada. *Fiscal References Tables September 2000* (Ottawa, 2001).

Other federal grants to provinces help alleviate vertical and horizontal fiscal imbalances. As such, these grants contribute greatly to interregional redistribution and are directly or indirectly targeted at long run economic disparities.

Canada's stabilization programme dates back to 1957. The basic provisions of the programme are designed to protect provinces from dramatic reductions in revenues. Despite the existence of a formal programme, no stabilization payments were made until the early 1980s when British Columbia received the first payment. Since then, stabilization payments have been made to Alberta, following the fall in the world price for oil, and to several provinces as a result of the country-wide recession in 1990. Typically, stabilization accounts for only a small fraction, roughly 1 to 2 per cent, of federal grants to provinces.

Of the other fiscal transfers made to provinces, grants made in support of provincial health, education and welfare spending and Canada's equalization programme are the most important. These grants account for roughly 80 per cent of aggregate funds transferred to provinces. Equalization is the most important unconditional grant, transferring revenues to provinces with low revenue-generating capacity. Interprovincial redistribution is the explicit goal of this grant.⁵ Ontario, Alberta and British Columbia do not receive equalization grants. Since these grants depend on provincial revenues relative to a standard, equalization provides some short run stabilization for recipient provinces. It is interesting to note that the three provinces that do not receive equalization were among the first to qualify for stabilization. Conditional grants to provinces have largely been in support of health, post-secondary education and welfare. Prior to 1977, these grants were predominantly matching but the federal government eventually abandoned matching grants in favour of loosely conditional, block grants. Block grants are not designed to

tackle long run economic disparities or provide short run stabilization, although indirectly they contribute to both functions.

Fiscal transfers play a much smaller role in the EMU, in part because of the narrowly defined responsibilities of the common EU government and its limited finances. While most grants in Canada are unconditional (or very loosely conditional), grants in the EMU are one hundred per cent conditional. For example, the Cohesion Fund provides infrastructure funds to members that are significantly lagging behind. At present, Ireland, Greece, Spain and Portugal receive these funds. These grants are designed to encourage capital accumulation and must be matched with public and private funds. Cohesion grants represent a sizeable fraction of GDP for these countries – ranging from 1.0 per cent of Spain's GDP to 3.7 per cent of GDP in Greece for the period from 1994 to 1999. In total, fiscal transfers accounted for less than 0.5 per cent of EU-wide GDP in 1999.⁶ In contrast, grants accounted for about 3.5 per cent of Canada's GDP in 1999.

Fiscal transfers to persons and federal taxes

Employment Insurance (EI) is the main federal transfer to persons in Canada. There is a comparable EU-wide programme. During the 1970s, there was a ramping up of the generosity of EI benefits. Since then, EI reform has been aimed at reducing the generosity to bring it more in line with EI benefits in the United States. This federal transfer contributes to regional stabilization in two ways. More benefits are injected into a region experiencing a downturn and payroll contributions from the region used to help finance benefits are reduced. The regional extended benefits component of the programme also injects additional funds into regions with relatively high unemployment rates adding more stabilizing inflows.

By far the most important revenue source for the federal government is the personal income tax (PIT). This tax acts as an automatic stabilizer, taking less from individuals when incomes fall and more when incomes rise. Since the federal PIT is a progressive tax and since federal grants are financed from the federal government's general revenues, the tax/grant combination involves an additional element of interregional redistribution.

Fiscal rules

There are no formal equivalents in Canada to the convergence criteria and fiscal rules used in the European Union. The Maastricht Treaty requires that EU members reduce debt-to-GDP ratios to 60 per cent and deficit ratios to 3 per cent of GDP in order to participate in the EMU. The Stability and Growth Pact (SGP), adopted in 1997, strengthens the membership criteria to include the following fiscal rules: inflation must be no more than 1.5 percentage points above inflation for the three best performing members; long-term interest rates must be no more than 2 percentage points higher than the corresponding

figures for the three best performing members; and budget deficits must be low, measured against a 3 per cent of GDP reference value. The SGP includes provisions for monitoring members' budget plans to ensure continued compliance with the above-mentioned rules. Penalties are also specified in the event that the 3 per cent reference deficit ratio is violated.

In Canada, several provinces have imposed fiscal rules pertaining to balanced budgets and debt reduction. However, provincial fiscal policy, including deficit and debt levels, is not restricted in any formal way by the federal government.⁷

Tax harmonization

In a currency union where labour and capital are relatively mobile, the decentralization of revenue powers and expenditure responsibilities can lead to tax competition and economic distortions. Despite significant tax base overlap, Canada is characterized by a comparatively high degree of tax harmonization. This harmonization is accomplished through tax collection agreements between the provinces and the federal government. Under these agreements, the federal government administers, collects and enforces provincial personal and corporate income tax systems at little or no charge to participating provinces.⁸ This system permits the realization of scale economies in tax collection and administration. Since 1997, the harmonization of federal and provincial sales taxes has also improved. At present, four of the nine provinces with retail sales taxes have harmonized with the federal government's sales tax – the Goods and Services Tax (GST).⁹ The harmonized sales tax (known as the HST) is centrally collected and administered at no charge to participating provinces.¹⁰

The European Union encourages tax co-ordination and harmonization but progress has been slow and limited to indirect taxes like the VAT. Beginning in 1977, the VAT was applied to a common base. Statutory VAT rates, however, vary substantially across members. For example, in 1999, Luxembourg had the lowest rate of 15 per cent while Sweden and Denmark tied for the highest rate of 25 per cent.¹¹ Reduced rates, special exemptions and the recently approved directive permitting a reduced VAT rate on labour-intensive services together contribute to the large variation in VAT rates. Little harmonization has been pursued with respect to business taxes except with respect to double taxation and cross-border economic activity. The EMU made a political commitment to a code of conduct for business taxation in 1997 in an effort to reduce harmful tax competition practices. At present, labour and personal income taxes are not harmonized.

Regional adjustment: fiscal transfers vs. fiscal rules

In joining a currency union, members lose the exchange rate mechanism for adjusting to differential shocks. As a consequence, the effectiveness (or ineffectiveness) of other avenues of adjustment, like labour mobility and local

price changes, becomes more critical. This section considers the advantages and disadvantages of using fiscal rules and fiscal transfers to aid regional adjustment and stabilize short run fluctuations. To begin, the evidence on differential regional shocks is reviewed. Following this, the neo-classical mechanisms for adjustment as well as other tools are evaluated.

Indicators of asymmetric shocks

Researchers have used a variety of techniques and data sets to investigate the presence and significance of asymmetric regional shocks. Although the results are mixed, there does appear to be evidence to support the existence and persistence of differential shocks in the EU and in Canada.¹² A common method is to examine the level of dispersion in regional unemployment rates. Reid and Snoddon (1992) adopt a somewhat different approach. The authors use negative correlations of regional unemployment rates (relative to the national rate) as a rudimentary measure of differences in the *timing* of provincial cyclical fluctuations. Deviations in the regional rate from the national rate permit an assessment of the relationship between provincial cycles independent of economy-wide movements in unemployment. Table 9.2 updates Reid and Snoddon's calculations using Canadian data for 1966 to 1999. Correlations are also given for two sub-periods, 1966 to 1981 and 1982 to 1999.

Strong negative correlations over the entire period are suggestive of the presence of asymmetric shocks. The frequency of negative correlations is higher, and the negative correlations are generally stronger, in the earlier period. There are some exceptions. Ontario and British Columbia, for example, show virtually no correlation in the first period but a strong negative correlation in the latter period. In some cases, the sign of the correlations are different in the two sub periods. New Brunswick has a strong negative correlation with each of the four Western provinces from 1966 to 1981. From 1982 to 1999, the correlations, however, are positive. On the whole, the data suggests that provinces do indeed experience asymmetric shocks but these differential cyclical fluctuations may be less pronounced now than thirty or forty years ago.

Regional adjustment

How effective are adjustments to these asymmetric shocks? In the very short run, a negative shock generates high unemployment. Adjustment can be achieved through labour mobility or local price changes (deflation and a decline in real wages). Over the medium term, governments could undertake discretionary fiscal policy and borrow to sustain expenditure levels. However, a deficit-financing policy is unsustainable in the face of longer-term shocks. Fiscal transfers from outside the region could help alleviate the costs of adjustment and provide a short run stabilization function. Alternatively, fiscal rules

Table 9.2 Correlations of deviations in provincial unemployment rates from the national rate, 1966–99

| | <i>Eastern provinces</i> | | | | | <i>Western provinces</i> | | | | |
|----------------------|--------------------------|---|-----------------------------|------------------------------|------------------------------|------------------------------|-------------------------|------------------------------|-----------------------------|------------------------------|
| | <i>Nfld</i> | <i>PEI</i> | <i>NS</i> | <i>NB</i> | <i>Que</i> | <i>Ont</i> | <i>Man</i> | <i>Sask</i> | <i>Alb</i> | <i>BC</i> |
| Newfoundland | 1 | 0.73 ¹ 0.46 ² 0.36 ³ | 0.80 0.76 0.56 | 0.59 0.83 0.11 | 0.40 0.66 -0.56 | -0.31 0.09 -0.05 | -0.51 -0.89 -0.05 | -0.18 -0.78 0.35 | -0.13 -0.84 0.21 | -0.12 -0.53 -0.01 |
| Prince Edward Island | | 1 | 0.73 0.76 0.25 | 0.33 0.57 -0.29 | 0.43 0.67 -0.13 | -0.14 0.05 -0.39 | -0.17 -0.48 0.47 | -0.10 -0.36 0.43 | -0.13 -0.67 -0.20 | -0.39 -0.61 -0.67 |
| Nova Scotia | | | 1 | 0.61 0.84 0.20 | 0.46 0.71 -0.18 | -0.30 0.17 -0.20 | -0.38 -0.72 0.10 | -0.07 -0.66 0.28 | -0.16 -0.85 0.25 | -0.17 -0.72 0.01 |
| New Brunswick | | | | 1 | 0.46 0.76 -0.20 | -0.57 0.02 -0.86 | -0.36 -0.68 0.22 | 0.05 -0.90 0.55 | -0.17 -0.63 0.55 | 0.25 -0.63 0.78 |
| Quebec | | | | | 1 | 0.05 -0.23 0.42 | -0.47 -0.46 -0.29 | -0.41 -0.82 -0.50 | -0.67 -0.87 -0.73 | -0.48 -0.87 -0.38 |
| Ontario | | | | | | 1 | -0.17 -0.21 -0.36 | -0.53 -0.47 -0.60 | -0.64 -0.23 -0.85 | -0.74 -0.02 -0.91 |
| Manitoba | | | | | | | 1 | 0.71 0.79 0.73 | 0.54 0.87 0.48 | 0.11 0.45 0.01 |
| Saskatchewan | | | | | | | | 1 | 0.65 0.80 0.61 | 0.31 0.39 0.29 |
| Alberta | | | | | | | | | 1 | 0.65 0.71 0.72 |

Source: Statistics Canada's CANSIM database.

Notes

1 Correlations for entire sample, 1966 to 1999 (**bold**).

2 Correlations for 1966 to 1981 (*italics*).

3 Correlations for 1982 to 1999 (normal).

can ensure that members of the currency union have sufficient fiscal room to carry out discretionary fiscal policy.

Labour mobility and price adjustments

The evidence suggests that labour mobility and local price adjustment are relatively sluggish in Canada and, perhaps even more so in the EMU. Eichengreen (1993) and Obstfeld and Peri (1998) both find evidence of slow labour market adjustment in Europe. There are few studies of the effectiveness of regional price adjustments to differential shocks for Canada. The available

evidence suggests that the local price adjustment mechanism is also slow in the two currency unions. Much of the existing work focuses on the United States and on select European countries. Blanchard and Katz (1992) find that relative wage and price movements play a minor role (in comparison to labour mobility) in regional adjustment to labour demand shocks in the United States. A comparative study of labour market adjustment in Canada and the United States by Prasad and Thomas (1998) find that real wages are less responsive to an employment growth shock in Canada. Obstfeld and Peri (1998) find evidence of little or no price response in Canada and Italy while Germany appears to have somewhat more responsive prices.

Discretionary fiscal policy

In theory, both provinces and EMU members have considerable latitude to pursue their own stabilization policies using discretionary fiscal policy. Kneebone and McKenzie (1999) provide some evidence on the frequency and relative magnitude of the discretionary fiscal policies of Canadian provinces over the period 1962 to 1996.¹³ Their work shows that provinces use discretionary budget changes frequently and supports the hypothesis that the *timing* of these discretionary fiscal impulses differs across provinces.

While EMU members have similar abilities to pursue discretionary fiscal policy, data presented in Gramlich and Wood's chapter suggests that the incidence of discretionary fiscal policy, and in particular pro-cyclical fiscal policy, in EMU countries has declined in the years since the Maastricht Treaty was signed. Consider Belgium and Italy. Gramlich and Wood show a zero correlation between changes in the output gap and changes in structural fiscal surpluses for Italy in the post-Maastricht period. For Belgium, the correlation is also low at 0.2. In fact, for most EMU members correlations are small after 1992. Spain and France are the exceptions with correlations of 0.92 and 0.55 respectively over the same period. These high correlations indicate substantial counter-cyclical discretionary budget movements in these countries.

One of the motivations for the tight fiscal rules under Maastricht and the subsequent convergence programs in the EMU is the belief that high and persistent debt-to-GDP and deficit-to-GDP ratios restrict EMU members from effectively managing their economic fluctuations. During the period of transition to compliance, the fiscal rules themselves serve as an additional constraint on discretionary fiscal policy. From 1993 to 1999, many EU members were struggling to achieve compliance. Belgium and Italy, for example, had debt-to-GDP ratios over 100 per cent in 1999, well in excess of the 60 per cent Maastricht reference value. On the other hand, France and Spain had basically satisfied the debt criteria by 2000.

To some extent this is a transition problem. After all EMU members have achieved, or gone beyond, the stated fiscal criteria, these rules may prove not to be overly restrictive. However, the transition to compliance is likely to last several more years given how far some members are from the 60 per cent debt ratio.

While provinces in Canada are not subject to such union-wide fiscal rules, some have self-imposed rules and all provinces are subject to external credit market pressures that may constrain their ability to pursue discretionary fiscal policy. Kneebone and McKenzie (1999) find evidence of a reduced volatility in discretionary fiscal policy in the Atlantic provinces at a time when these provinces faced sizeable debt loads and rising interest rates. The authors suggest that the high debt and debt servicing costs during this time provided limited room for fiscal maneuvering and thus contributed to a reduced volatility in discretionary fiscal policy.

External borrowing constraints appear to restrict provincial discretionary fiscal policy, especially if provinces have limited fiscal room. The potential disciplining effects of the external credit market are reflected in the fact that almost every province's credit rating was downgraded in the first half of the 1980s following the recession.¹⁴ Kneebone (1994) confirms the disciplining effects of the credit market on provincial governments' deficits and debts. Cheung (1996) finds evidence that the higher a province's debt-to-GDP ratio, the higher the probability that the province's credit rating will be downgraded. Figures 9.2 and 9.3 show the correlations in credit downgrades and deficit-to-GDP and debt-to-GDP ratios for Newfoundland and Ontario. Years in which credit downgrades/upgrades occur are indicated. In Ontario, for example, successive credit downgrades in the early 1990s correspond to a

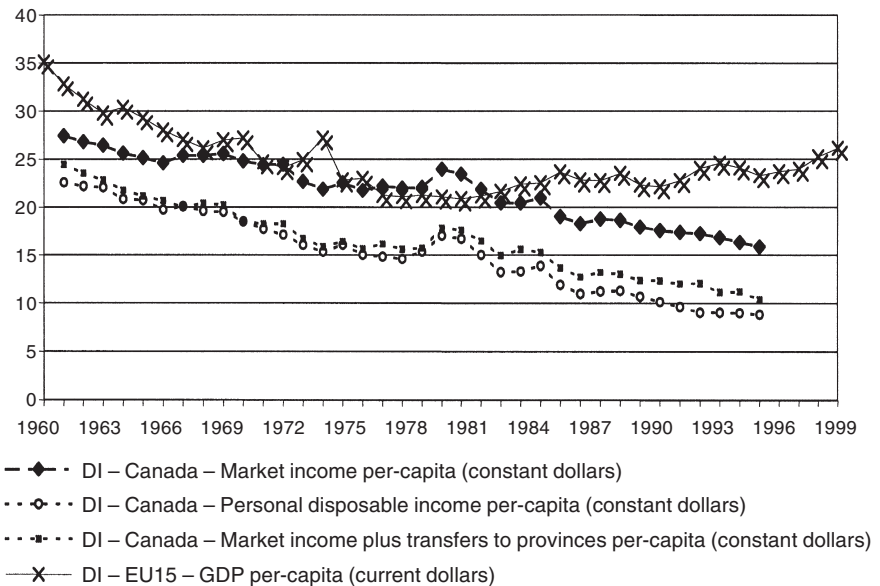


Figure 9.2 Income disparities in Canada and the EU15.

Source: Dispersion Indices for Canada calculated using data from Statistics Canada's CANSIM database. EU data obtained from European Commission's 'The EU Economy: 2000 Review', *European Economy*, No. 71 (Luxembourg: Office for Official Publications of the EC, 2000).

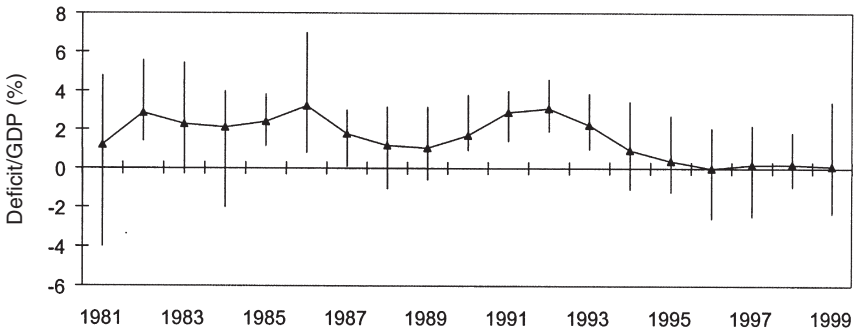


Figure 9.3a Canada: deficit to GDP ratios – high, low and average provinces.

Source: data are from Finance Canada, *Fiscal Reference Tables 2000* (Ottawa: Government of Canada, 2001) and Statistics Canada’s CANSIM.

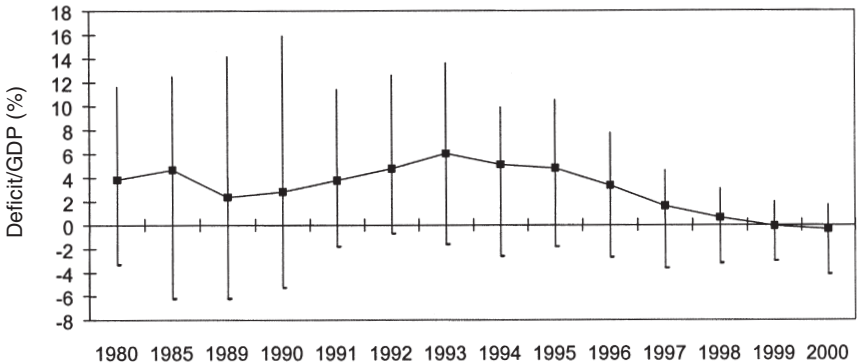


Figure 9.3b EU15: deficit to GDP ratios – high, low and average provinces.

Source: data are from European Commission’s *Public Finances in the EMU 2000*, Report of the Directorate General for Economic and Financial Affairs, May 24.

period of a rising net debt-to-GDP ratio and large deficit-to-GDP-ratios. A similar correlation between credit downgrades and debt and deficit ratios is evident for Newfoundland.

So what happens if labour and price adjustment are limited and currency union members are constrained (by fiscal rules, external market pressures, or limited fiscal room) from pursuing discretionary fiscal policy to provide short run stabilization? In the EMU, the expectation is that once the transition to compliance with the fiscal rules is complete EMU members will no longer be constrained by limited fiscal room. In the event of extreme fluctuations, the EMU may grant permission for short run deviations from the fiscal rules. In Canada, fiscal transfers can help out to smooth out fluctuations when these other avenues of adjustment are ineffective or constrained.

Fiscal transfers

Fiscal transfers, broadly defined to include taxes, transfers to persons and grants to provinces, can provide a valuable short run stabilization. While Canada has a long history with respect to fiscal transfers of this nature, they play a very limited role in the European Union. Federal taxes work as an automatic stabilizer, taking less from a region suffering an adverse shock and taking more when economic times in the region improve. Transfers to persons, like the federal government's Employment Insurance programme (EI), also contribute to stabilization by transferring income to unemployed individuals. Moreover, the regional extended benefits component of EI results in an injection of cash into regions with relatively high unemployment rates.

Canada's stabilization programme is the only grant where stabilization is the explicit goal. Other grants from the federal government to the provinces may, however, contribute indirectly to short run stabilization. As noted previously, equalization grants provide a stabilizing inflow of funds depending on the effects of the shocks on provincial revenue bases and on whether the province receives equalization. Matching grants for welfare spending, from 1966 to 1996, were likely counter-cyclical and therefore stabilizing. Canada's current system of block grants for the health and post-secondary education grants have small stabilizing components as a side effect of the peculiar way these grants are calculated.

Distinguishing empirically between the overall contribution of fiscal transfers to stabilization (and to redistribution) is a difficult task. Using data for Canada, Bayoumi and Masson (1995), for example, estimate that the redistributive effects of taxes, transfers to persons and grants to provinces exceed the stabilization effects. For a one dollar shock, a total of 39 cents would flow into a region for redistribution. Twenty-two cents of this inflow is attributable to intergovernmental grants, while another 15 cents comes from transfers to persons. Taxes contribute 2 cents of the \$0.39. Fiscal flows to provinces in response to a \$1 income shock provide a stabilization offset equal to 17 cents – with about 11 cents from transfers to persons and about 3 cents each from taxes and from grants to provinces. Obstfeld and Peri (1998) find an even larger redistributive effect of fiscal transfers for Canada. Moreover, their results suggest a significant amount of persistence to these fiscal flows.

Regional adjustment: substitutability of fiscal rules and fiscal transfers

The main purpose of this section is to investigate whether fiscal rules and fiscal transfers are close substitutes for promoting regional economic adjustment to short run shocks. In principle, stabilizing fiscal transfers dampen fluctuations within a province and therefore serve to reduce the need for provincial counter-cyclical discretionary fiscal policy. On the other hand, fiscal rules, like those in the EMU, help to ensure the viability of discretionary

fiscal policy when needed and eliminate the requirement for stabilizing fiscal transfers. So, in this respect, the two instruments are substitutes.

Are there disadvantages to the 'fiscal rules' approach? There is some evidence to suggest that the explicit fiscal rules in the EMU hamper discretionary fiscal policy initiatives, at least during the time when EMU members are attempting to readjust their fiscal policies to comply with the convergence criteria. Short run stabilization transfers could be used in the EMU where necessary to help adjust to shocks during this transition period. However, this approach may be ill advised. Canada's experience with fiscal transfers points to some potential problems. Fiscal grants to provinces contribute little to short run stabilization. Canada's stabilization grants are very small relative to provincial revenues or to the aggregate flow of grants and their effectiveness is further limited by the time lags involved with paying out the claims and the uncertainty regarding the amounts to be transferred.

For Canada, the empirical evidence suggests that the bulk of the short run stabilization actually comes from fiscal transfers to persons (mainly Employment Insurance benefits) and not grants. Fiscal inflows for EI can be in response to a temporary increase in a region's unemployment rate (and therefore stabilizing) but can also be generated by *persistently* high unemployment rates. In this case, these transfers take on a redistributive rather than a short run stabilization function. Day and Winer (1994) conclude from the empirical literature that EI interferes with labour mobility and therefore reduces even further the effectiveness of an already sluggish labour adjustment mechanism.

At present, the EMU is likely to face serious obstacles to building a consensus on stabilizing transfers. Financing these transfers would put considerable strain on the limited resources of the common EU government. While EMU members may suffer from a reduced ability to manage their economic fluctuations in the short run, in the longer term the stage should be set for the effective management of these fluctuations in the future. To provide more room for discretionary fiscal policy during the transition period, the EMU could permit deviations from the fiscal rules when shocks are particularly acute. For smaller shocks, it seems reasonable to be optimistic that the fiscal rules approach will help members to manage their own fluctuations. Under these circumstances, the fiscal rules approach is better suited to promoting regional adjustment in the EMU.

Economic convergence: fiscal rules vs. fiscal transfers

Economic disparities among currency union members have given rise to different responses in the EMU and in Canada. Disparities in Canada are addressed primarily through the operation of Canada's model of fiscal federalism. Redistributive fiscal transfers are motivated by interregional equity considerations and regional disparities. In contrast, the EMU focuses on fiscal harmonization to encourage economic convergence. The fiscal rules set out in the convergence programmes, and later in the SGP, were selected

with two key issues in mind: a reduction in economic divergences between members (and potential members); and, the enhancement of economic and social cohesion in the Union. Fiscal transfers to members are used, to an lesser extent, to promote convergence. Are these approaches close substitutes for promoting long run economic convergence?

Income convergence in Canada and the EMU

Income measures and other economic indicators like labour productivity, unemployment or output are commonly measures of economic disparity. Alternatively, dispersion in human and physical capital may be of interest when evaluating the speed of convergence in output or income-based disparity measures. A number of studies, like Helliwell (1994), Coulombe (1999), and Coulombe and Lee (1993), find evidence of convergence in Canada using both income and output-based measures. For the European Union, the results in Canova and Marecet (1995) suggest rapid convergence for nine EU regions. This contrasts with earlier evidence of convergence at very slow rates.¹⁵ More recently, Tondl (1999) conducted an empirical analysis of convergence for all regions in the EU15 over the period 1960–94. Her results confirm convergence over time and across regions but convergence rates are found to differ depending on the time period examined. So although a substantial literature on convergence has developed, the empirical results have thus far failed to generate a broad consensus.

To gain a flavour for broad trends in economic disparities in the European Union and in Canada, this section presents some data on income dispersion across Canadian provinces and for the Union. To measure whether provincial income per-capita in Canada (expressed as a percentage of the national average) is converging, a dispersion index is calculated using three different income measures for the period from 1961 to 1996.¹⁶ The first index uses real per-capita market income to capture income before taxes and transfers.¹⁷ To illustrate the redistributive effect of the tax/transfer system, a second dispersion index is calculated using real personal disposable income, defined as market income after provincial and federal taxes and transfers. Finally, a third dispersion index is calculated based on real market income inclusive of federal grants to provinces. This measure illustrates the direct impact of federal grants to provinces on regional income convergence. Income dispersion in the EU15 is calculated using data on current GDP per capita relative to the EU15 average from 1960 to 2000.¹⁸

These dispersion indices are shown in Figure 9.2. Although the income measures are not directly comparable, the convergence trends differ in Canada and the EU15, especially since 1980. For Canada, the data suggest convergence for all three income measures. Dispersion in per capita GDP in the European Union declines from 1960 to 1980. Over the last twenty years, however, dispersion increases. There is no noticeable decline in per-capita GDP disparity from 1993 to 2000, the period over which the Maastricht fiscal rules

were in place and the first Cohesion transfers were made. Overall, disparity appears lower in Canada than in the European Union. Part of this difference is attributable to somewhat greater labour mobility and a higher degree of tax harmonization, especially with respect to corporate income taxes, in Canada.

How do fiscal transfers in Canada contribute to income convergence? Fiscal transfers redistribute income and therefore lower the dispersion in a given year. Transfers can also improve the allocation of resources across provinces by encouraging capital accumulation, for example, or by improving the efficiency of job search. In this way, fiscal transfers contribute indirectly to the convergence of market income over time.

Work by Coulombe and Lee (1996) and Coulombe (1999) maintain that, for Canada, the contribution of federal grants to convergence in market income has reached its limits. Coulombe (1999) argues that, prior to 1978, convergence in market income was enhanced by federal grants to provinces, especially grants in support of post-secondary education. Fiscal transfers helped to speed up the accumulation of human capital and contributed to the convergence process. Coulombe attributes the persistence in the high level of regional disparities and lack of convergence in market income after 1977 to unfavorable linkages between productivity, unemployment rates and labour force participation rates, which he argues are strongly influenced by Canada's system of interregional redistribution. Individuals remain in low productivity regions, not participating or working in the labour force, because of fiscal inflows (Employment Insurance benefits as well as grants to provinces).¹⁹

It is interesting to note that education grants to provinces in this period were loosely conditional, block grants, independent of the level of provincial spending. Relative to the matching grants for post-secondary education that were in place prior to 1977, block grants do not lower the local price of education spending. In their review of the available empirical evidence, Day and Winer (1994) confirm that Employment Insurance deters labour mobility and interferes with the efficient allocation of labour. Evidence on a detrimental effect of intergovernmental grants is, however, so far inconclusive.

Over the period from 1993 to 2000, many EMU members were struggling to comply with established fiscal rules. For some members, compliance was difficult and costly. Since these rules aim to better position members to achieve convergence and convergence is a long run process, it is too soon to determine the impact of these fiscal rules on long run economic disparities. Pereira (1999), however, provides some evidence on the effects of fiscal transfers on output convergence in the European Union. He finds that cohesion grants for the period 1994 to 1999 improve per-capita GDP for the four recipient countries. Despite these gains, these countries will continue to lag well behind the EU average. His results suggest that economic convergence is enhanced in a very limited way by fiscal transfers. While tighter matching conditions are essential to improving the contribution of grant programmes to convergence, Pereira advocates that structural changes in lagging economies offer greater potential for achieving real convergence.

Fiscal convergence

The fiscal rules in the EMU are directed at convergence in broad fiscal aggregates like the deficit-to-GDP and debt-to-GDP ratios, inflation and interest rates. According to the EMU, fiscal convergence is a precondition for economic convergence and greater social cohesion. Apart from Canada's tax collection agreements covering sales and income taxes, there are no formal criteria to promote fiscal convergence across provinces. Fiscal transfers may, however, contribute indirectly to fiscal convergence. Equalization, in particular, is aimed at revenue convergence, ensuring a certain standard of revenue for 7 of 10 provinces. The federal government could manipulate fiscal grants to provinces with the goal of promoting fiscal restraint in certain provinces. There are a number of political drawbacks from this approach and it is of limited use for provinces that receive only a small share of revenue from grants. There are other factors that may encourage fiscal convergence. External borrowing constraints may help to cap deficit-to-GDP and debt-to-GDP ratios. Footloose voters, labourers and firms may desire a degree of fiscal convergence. For example, voters may favour minimum standards for a public service, like health care, which indirectly contributes to fiscal convergence.

Of primary interest, is whether Canada's fiscal transfers and the EMU's fiscal rules are substitutes for achieving convergence in broad fiscal aggregates. Figure 9.3a shows the average provincial deficit as a percentage of GDP and indicates the high and low values for each year over the period 1981 to 1999. Figure 9.3b displays a similar graph for members of the EU15 for 1980 to 2000. A similar pattern of a fluctuating, and then declining, average deficit ratio is evident in both figures. Moreover, the downturn in the average deficit ratio occurs roughly at the same time in Canada and the EU15. While this is not surprising for the European Union, since it coincides with the introduction of the Maastricht Treaty's deficit and debt criteria, a similar decline in Canada is notably because of the absence of such fiscal rules.

As expected, the difference between the high and low deficit ratio has also declined in the EU15 since 1995. In Canada, dispersion falls slightly over the period from 1989 to 1993. Unlike the experience in the European Union, dispersion increases again after 1993.

The similar experience in the two currency unions with respect to the average deficit-to-GDP ratio, in spite of the lack of explicit fiscal rules in Canada, suggests that, at least in Canada, other forces are at work. Credit market discipline, fiscal transfers, voter preferences, and a shift in fiscal priorities may be partly responsible for the decline in the average provincial deficit ratio. Fiscal convergence in the European Union may also be influenced by these factors. This leaves the question of how much of the fiscal convergence in the Union can be attributed to fiscal rules and to other factors.

As an aside, it is interesting to consider other indicators of fiscal convergence. For example, revenue equalization in Canada ensures a degree of revenue harmonization. Has this encouraged expenditure convergence? Figure 9.4 shows a dispersion index for Canada and for the EU15 based on the share of

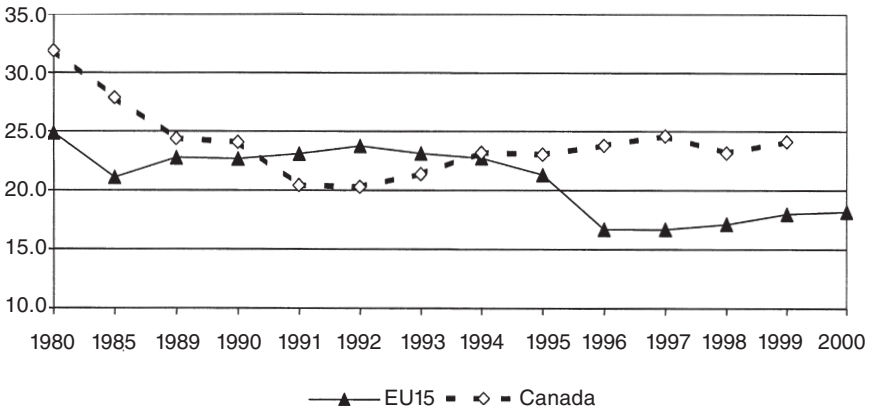


Figure 9.4 Dispersion in general government consumption expenditures (% of GDP).

Source: data for Canada are from Statistics Canada's CANSIM database. For the EU, the data are taken from European Commission's *Public Finances in the EMU 2000*, Report of the Directorate General for Economic and Financial Affairs, May 24.

government spending in regional GDP to illuminate broad trends in differences in government presence in regional economies.²⁰ This approach does not isolate the determinants of changes in dispersion or determine the contribution of fiscal rules or transfers to the process, but does provide an indication of whether expenditure convergence has occurred in Canada or the EMU.²¹

Overall, the evidence does not support the idea of expenditure convergence in terms of the relative size of government in the economy in recent years in Canada or the European Union. Dispersion in provincial governments' shares of GDP declined from 1981 to 1990. Since then dispersion has increased. Expenditure convergence in Canada over the period from 1989 to 1992 roughly corresponds with the reduction in dispersion in provincial deficit-to-GDP ratios. For the EU15, dispersion is fairly stable over the mid-1980s to 1995, falls between 1994 and 1996, and increases after 1996.

Convergence: substitutability between fiscal rules and fiscal transfers

The data on deficit convergence are consistent with what we would expect, given the EMU's fiscal rules. If fiscal rules generate this type of fiscal convergence and fiscal convergence is viewed as a precondition for long run economic convergence, then while the stage may be set, the data does not yet show evidence of an improvement in long run economic convergence in the European Union. Another five to ten years of data will prove useful in our attempts to measure the contribution of these fiscal rules to economic convergence. And while fiscal transfers in the EMU have contributed to convergence for those EU countries that lag the most, the overall impact is minor.

For Canada, the evidence suggests that fiscal transfers to provinces contribute to income convergence but there may be a point at which additional transfers fail to promote efficient resource allocation and simply redistribute income. A stronger consensus exists in the literature regarding fiscal transfers to persons and, in particular, EI benefits. While these transfers help stabilize short run fluctuations, they also respond to unemployment rates that are persistently higher than average. As a result, these fiscal transfers can interfere with the efficient movement of labour.

A final word on fiscal grants. The evidence, such as it is, points in the direction of matching grants with strict conditions, limited perhaps to infrastructure and physical and capital accumulation. This is more or less the approach the EMU has taken with grants to member countries. In Canada, there has been a definitive move away from open-ended matching grants. The federal government in Canada disliked these grants because they were expensive and unpredictable. In the new era of fiscal responsibility, these grants were hard to budget for and since control over how the funds were spent rested primarily with the provinces, the federal government argued there was a lack of accountability to the taxpayers. It seems unlikely that these issues would be any less severe in the European Union. In fact, the limited budget of the Union makes alternatives involving anything but a small expansion of these fiscal grants, unattractive.

Conclusion

This chapter investigates the different fiscal institutions that Canada and the EMU use to support their respective currency unions. In particular, the contributions of fiscal transfers in Canada and fiscal rules in the EMU to regional adjustment and long run economic convergence are examined. With respect to regional adjustment and stabilization in the face of country-specific shocks, fiscal rules reduce the need for stabilizing transfers. Fiscal transfers, on the other hand, reduce the level of stabilization required via regional discretionary fiscal policy. In Canada, interregional transfers or grants play a key role in redistributing income across regions and in reducing regional disparities. By encouraging fiscal convergence, the fiscal rules approach hopes to reduce economic disparities. If successful, fiscal rules act as a substitute for redistributive fiscal transfers.

The EMU's experience with fiscal rules to date suggests some potential problems. For example, fiscal rules may hamper the ability of members to pursue discretionary fiscal policy during periods of extreme shocks or when members are struggling to achieve or maintain compliance. While divergence in deficit and debt-to-GDP ratios has been reduced, there is little evidence as of yet to suggest that fiscal convergence transfers into greater economic convergence. Given the adjustments necessary in some countries to comply with the fiscal rules it may take several years for any positive effects on convergence to show up in the data. These problems may not be serious enough to

warrant a switch to other tools, like stabilizing or redistributive fiscal transfers. Moreover, circumstances in the EMU suggest that fiscal transfers are not a desirable or viable option in the near term.

Canada's experience with fiscal transfers for stabilization and for economic convergence demonstrates some potential difficulties with this approach. Despite the existence of a formal stabilization programme as well as a number of fiscal transfers with stabilizing properties, fiscal transfers in Canada are shown to have a relatively small stabilization effect. Part of the failure of these transfers to provide short run stabilization is related to the uncertainty with respect to the size and timing of stabilization and equalization grants. Fiscal transfers frequently respond not only to short run shocks but also to persistent conditions. This in turn generates persistence in the fiscal transfers so that they act more as tools for ongoing redistribution rather than short run stabilization. Other fiscal transfers impede, or are suspected of impeding, efficient labour adjustment.

While fiscal transfers can contribute positively to convergence in income disparities by encouraging human capital accumulation and perhaps infrastructure investment in poor regions, the evidence for Canada hints that the influence of grants on regional convergence has reached its limits. Moreover, fiscal transfers may actually discourage factor mobility, as is the case with Employment Insurance, and lucrative fiscal grants may weaken the incentives of provincial governments to realign their finances.

There are some strong positive lessons from the Canadian experience. Tax harmonization is quite successful and more advanced in Canada. Canada's formal stabilization programme satisfies the goal of providing short run stabilization. Equalization serves, albeit imperfectly, a similar purpose. Canada's experience suggests, however, that programme design is critical if such problems like unintended redistribution are to be minimized. Practical implementation issues relating to unpredictable payments and time lags must also be addressed if the effectiveness of fiscal transfers is to be improved.

Notes

- 1 Territorial governments are not on par with sovereign provincial governments since their powers are not formally recognized in the Constitution.
- 2 European Commission, *Financing the European Union: Commission Report on the Operations of the Own Resources System*, Directorate General 29, Budgets, Resources, Brussels, 7 October 1998.
- 3 Watts, Ronald. *Comparing Federal Systems*. (Kingston: Institute of Intergovernmental Relations, Queen's University, 1999).
- 4 The federal government is also involved in a wide variety of fiscal transfers directly to persons. Some of these federal programmes, in particular the Employment Insurance Program, have a significant, interregional redistributive component.
- 5 Section 36 (2) of the Constitution Act 1982 commits the federal government to the *principle* of equalization and to ensuring that provincial governments can provide reasonably comparable levels of public services at reasonably comparable levels of taxation.

- 6 European Communities. European Union Financial Report 1999. (Luxembourg: Office for Official Publications of the European Communities, 2000) and European Commission. "The EU Economy: 2000 Review", *European Economy*, No. 71 (Luxembourg: Office for Official Publications of the EC, 2000).
- 7 Some very loose 'rules' do, however apply. For example, provincial health care spending must satisfy a set of federally-defined principles in order for provinces to receive health care grants. However, whether these conditions actually constrain provinces in any way is debatable.
- 8 Quebec does not participate in the tax agreement for personal or corporate income taxes. Alberta and Ontario do not participate in the agreements for corporate income taxes. In the case of non-participation, the provinces collect and administer their own tax systems.
- 9 The GST is a value-added type tax levied at a rate of 7 per cent and introduced in 1991 to replace the federal government's former sales tax imposed on manufactured goods.
- 10 Recent tax reforms, introduced in 1998 and 2000, have however opened the door for significant changes in tax harmonization.
- 11 European Commission. *Tax Policy in the European Union* (Luxembourg: Office for Official Publications of the European Communities, 2000).
- 12 For the European Union, see Vinals and Jimeno (1996) and Forni and Reichlin (1997). Recent research by Hallet (2000), however, suggests that the probability of differential regional shocks for the European Union may be lower in the future on account of strong convergence in sectoral composition across EU regions. For Canada, see Coulombe (1999).
- 13 The effects of automatic stabilizers are netted out to focus on discretionary changes in provincial budgets.
- 14 Credit ratings, like those provided by Standard and Poor, are an assessment of the likelihood of default on loan payments and are believed to influence the cost of borrowing and the availability of credit.
- 15 European Commission (2000) 'The EU Economy: 2000 Review', *European Economy*, No. 71 (Luxembourg: Office for Official Publications of the European Community).
- 16 The dispersion index is calculated as the standard deviation divided by the mean and is also known as the coefficient of variation.
- 17 To arrive at real market income per-capita (in 1992 dollars), provincial net domestic product is divided by provincial population and then deflated by the national GDP deflator. Personal disposable income is defined as market income plus transfers and minus taxes and payroll contributions. All data are taken from Statistic Canada's CANSIM database.
- 18 The dispersion index for the EU15 is based on data from Annex Table 9 of the European Commission's "The EU Economy: 2000 Review", *European Economy*, No. 71 (Luxembourg: Office for Official Publications of the European Community, 2000).
- 19 Courchene (1978, 1981) made similar arguments more than two decades ago.
- 20 Provincial expenditures on current goods and services are used as the indicator of programme spending.
- 21 Recent work suggests that governments are becoming more similar in terms of the shares of their budgets (or of GDP) devoted to particular types of government spending. Atkinson and Bierling (1998) find that provinces are becoming more alike in terms of the relative importance of health care spending in the budget. Nixon (1999) also finds evidence of convergence in health care expenditure for members of the EU15.

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Abbreviations: EMU = Economic and Monetary Union; EU = European Union; Fig = Figure; Tab = Table; USA = United States of America

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 - decentralization 16–17; implications of inter-jurisdictional competition 29–30; reform of in USA 24, 26