FISCAL FEDERALISM

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THE ECONOMIC CASE FOR FISCAL FEDERALISM IN SCOTLAND

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The Allander Series

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CONTENTS

Sponsor’s Foreword
Introduction by Wendy Alexander
1. Abstract
2. Introduction
3. The Theory of Fiscal Federalism
4. Experience of Devolved Financing in Other Countries
5. The Scottish Perspective
6. Conclusions
References
Glossary of Key Terms
SPONSOR’S FOREWORD

This paper by Ronald Macdonald and Paul Hallwood is the last of the Allander Series and provides a robust analysis of the case for increased fiscal federalism in Scotland. It considers a range of options and also looks at the solutions which have been implemented in Europe and North America.

The policy recommendations which they make are challenging and should promote a rigorous debate. The authors reject full fiscal autonomy but recommend a structure which seeks to “broadly match” Scottish Executive expenditure with assigned tax revenue. The marginal tax rule provides a clear framework for political decision makers and increased transparency in terms of the impact of decisions. The authors make the linkage that over time this should lead to improved accountability, decision making and more efficient delivery of public services. This builds on the point made by Adair Turner recently that increased efficiency and productivity in the public sector is as important for the economic and social welfare of Scotland as improved performance in the corporate sector.

Ernst & Young is delighted to have been associated with the Allander Series. This paper like the others in the series is challenging and in places controversial and makes a significant contribution to the debate about the key economic and social issues which face Scotland.
INTRODUCTION

By Wendy Alexander, MSP

Scotland has spent too long reflecting on her past glories and on futile attempts at recapturing them. It is time to start looking to a new future for Scotland. Many Scots have a growing conviction that as part of this new future the nation needs to focus on higher growth. The Allander Series is dedicated to responding to this opportunity by catalysing a debate about achieving improved, sustainable growth.

The Series brings together some of the world’s leading economists to assess how Scotland can best respond to the challenges of globalisation, of European enlargement and of devolution. The authors were chosen not only because of their outstanding expertise in economics but also because of their understanding of its application to policy. In a world where the economic challenges facing nations are frequently common, global and complex, their papers will help set a policy agenda that brings the best global research insights to bear on Scottish circumstances. Scotland can become a place where, in future, new policy ideas and their creative implementation come together.

The Series, which is conducted under the auspices of the Fraser of Allander Institute at the University of Strathclyde, is non-partisan and has attracted the support of leading
corporations, entrepreneurs, academics and politicians. By focusing on how outsiders see Scotland it is designed to stimulate a far-reaching internal debate about the future of the Scottish economy and develop our understanding of the nation’s future opportunities.

This the eighth paper in the Series has been co-authored by two distinguished academic economists, Professor Paul Hallwood of the University of Connecticut and Professor Ronald MacDonald of the University of Strathclyde. It brings the perspective of professional economists to bear on the politically high-profile debate around fiscal federalism and fiscal autonomy. It contains much that is controversial, but few will quibble with the calibre of its contribution to the debate.

In keeping with other Allander Series papers it draws extensively on the international evidence on fiscal federalism and the financial options for sub-national tiers of government. It outlines the opportunities for future fiscal reform whilst maintaining a refreshing candour about the trade-offs this process could entail. It offers little comfort to those searching for a silver bullet, whilst adding to the case for more evidence-based policy making in Scotland. Again, like other Allander Series papers it will be of interest to those beyond these shores.

The spirit of the whole Series is that a future Scotland can become a test bed for a unique mixture of both the American spirit of enterprise and of European solidarity. Scotland has much to offer, she is a natural home for knowledge-based businesses, a place of technological advancement and possesses a people who value and support skills and learning. Devolution has enhanced the possibilities for further economic, cultural and social change.
Financing Growth

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ABSTRACT

This pamphlet considers the present fiscal arrangements in Scotland and sketches out some alternative options based on various economic criteria. It argues that for any devolved or federal system to function effectively it must:

• Clearly assign expenditure responsibilities between the respective levels of government;
• Define how those expenditures are to be financed in terms of tax raising by the different levels of government;
• Specify the nature of intergovernmental transfers;
• Address the ability of sub-national governments to borrow.

The first issue, of respective responsibilities, was essentially settled with the establishment of the Scottish Parliament, itself a significant step. However, the other three issues have not so far been fully addressed in a Scottish context. Under the current system taxes raised in Scotland go into the consolidated UK fund and Westminster in effect decides the level of public spending in Scotland. This pamphlet argues for the
introduction of a new system consisting of greater tax assignment – where Scotland retains a portion of the taxes raised in the country - and the devolution of some other taxes. Such assignment and devolution of taxes could awaken the Scottish electorate and politicians to the true tax burden of Scottish public spending, and so raise efficiency in the use of public money.

In all real world cases, substantial intergovernmental transfers occur between central and regional governments, to finance common services and preserve appropriate equalisation, the challenge for every federal state is how it trades off equity and efficiency objectives.

Finally, one of the anomalies in the current UK system is that the lowest tier of government – local authorities – can tax, spend and borrow, but not the Scottish Parliament. The pamphlet discusses the borrowing arrangements operating elsewhere.

The pamphlet rejects ‘full’ fiscal autonomy – meaning Scotland retains all of the taxes raised in Scotland and uses them either to finance public spending by an independent Scottish Parliament, or to remit some portion to Westminster for common services. There are theoretical, constitutional and practical reasons why all taxes should not be devolved to the Scottish Parliament. Firstly, the British economy is highly integrated and if the UK is cut out of providing direct macroeconomic stabilisation the Scottish economy may well become more volatile. Secondly without fiscal transfers equity in the distribution of public goods and services will be ended. Regions or nations within a unitary or federal system have mutual obligations which reflect access to shared services.

Thirdly there would be a loss of the economies of scale in
the provision of services such as social security and defence. These kinds of difficulties in implementing full fiscal federalism are presumably why we do not observe it in practice in any other nation state.

We have, however, argued for change. We have argued for a balanced tax assignment, which is one that seeks broadly to match identifiable Scottish Executive expenditure with assigned tax revenues and what we refer to as the marginal tax rule. Our specific proposal involves the assignment of some tax revenues and devolution of other tax rates and/or taxes bases to Scotland. We mean by this that in future a considerable proportion of taxes levied on Scottish tax bases should be returned to the Scottish Executive. We believe that the devolution of some taxes is important since economically rational decisions are most likely to be adopted when decision-makers have to balance benefits with costs and, particularly, when they have to make such decisions at the margin.

The Scottish Executive budget, however, would continue to be supplemented by transfers from the Westminster budget, in line with best international practice.
INTRODUCTION

In this pamphlet we try to move the debate about fiscal federalism away from the contentious link between fiscal federalism and political independence for Scotland towards an economic analysis of the issues. These issues are not unique to Scotland but apply in any country whose government is not entirely centralised. We take the existing constitutional settlement in the UK as given and set out arguments based on economic theory and evidence relating to the devolution of economic powers from Westminster to Edinburgh.

For any devolved or federal system to function effectively it must do the following: assign expenditure responsibilities between the respective levels of government; define how those expenditures are financed in terms of tax and revenue raising by the different levels of government; specify the nature of transfers between the different levels of government; and address the ability of sub-national governments to borrow.

The first of these issues was essentially settled with the establishment of the Scottish Parliament, which represents a significant step towards fiscal federalism. However, the other issues have not so far been fully addressed in the Scottish

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2 Previous papers focussing on the economics of fiscal federalism for Scotland include Bell and Christie (2002) and Darby, Muscatelli, and Roy (2002).

3 In particular, we use the ‘traditional’ and ‘new’ fiscal federalism literatures, the optimum currency area literature, and draw on time consistency issues from the macroeconomic literature.
context. At present the Scottish Executive has the power to change personal income taxes by plus or minus three pence in the pound, the so-called tartan tax, and to set and raise non-domestic rates (property taxes), the proceeds of which accrue to local government. In addition it can set a range of user charges such as the student tuition fees. However, these are limited powers, in terms of both likely revenue and effects on incentives.

The phenomenon of central government having greater power to obtain income than it actually needs for the exercise of its authority, while the sub-central level has less power to raise income than it needs, is referred to in the fiscal federalism literature as vertical imbalance or fiscal mismatch. An imbalance should be addressed, as far as is practicable, if the sub-central level of government is to operate an efficient fiscal regime. Drawing on the theory of fiscal federalism we argue for a smaller vertical imbalance between taxes retained in Scotland and public spending in Scotland. A closer matching of spending with own-source taxes would better signal to beneficiaries the true costs of public spending in terms of taxes raised in Scotland. It would also create more complete incentives for politicians to provide public goods and services in quantities and at qualities that voters are actually willing to pay for. Under the current bloc grant system, the marginal tax cost of spending does not enter into political agents’ calculations as spending is out of a fixed total budget. Moreover, the Scottish electorate is hindered in signalling its desire for local public goods and services since the size of the total budget is determined by a rigid formula set by Westminster.

However, an exclusive focus on vertical imbalances could result in horizontal imbalance if transfers from the centre are
inadequate for the equalisation of resources based on needs at the regional or local level. Needs equalisation exists in all fiscal systems; some is inevitable to finance common services. The question is the extent to which it occurs. This equalisation mechanism may be directed to a specific service, such as health, education or social security – or, as in the case of Scotland, the overall bloc grant.

The challenge facing Scotland, like all regional economies, is finding the most satisfactory trade-off between equity and efficiency objectives. Scotland’s current financing system is characterised by a high level of equalisation and a high level of vertical imbalance. Hence the choice is: how much horizontal balance is Scotland willing to give up in exchange for greater vertical balance with its associated increased fiscal efficiency.

The choice should be informed by theory and evidence on these three key economic roles of government, namely:

- promotion of fiscal efficiency in the provision of public goods and services;
- promotion of the desired degree of income equality;
- promotion of macroeconomic stabilisation.

In designing a fiscal system there is inevitably a trade-off between these three functions. As we shall see, in any regional economy there is little scope for the devolution of a macroeconomic stabilisation role for fiscal policy. Our analysis of trade-offs will therefore focus mainly on allocative efficiency and equity considerations.

At the moment the allocation of additional revenues to Scotland is based on the Barnett formula (discussed in more detail below). This formula is widely regarded as favouring Scotland because Scotland has higher per capita expenditure. But the formula is a mechanism for producing convergence in
spending per head across the UK. The argument that Scotland requires higher per capita spending relative to the rest of the UK is based on the perceived greater needs in Scotland due, for example, to its poorer health record and the sparsity of its population.\footnote{The Barnett formula was first applied in 1978. In 1979 the Treasury conducted a needs assessment exercise which generally favoured Scotland (and Northern Ireland) and despite the fact that Barnett was supposed to act as a convergence formula (equalising per capita spending across the regions in the UK) it has in fact simply enshrined the favourable differential that existed in 1979.} In essence the current arrangements for financing the Scottish Parliament trades off fiscal efficiency in favour of equity. Indeed, it might go too far in this direction with Scotland’s perceived needs being over-compensated by Westminster. Moving to a fiscal federalist structure in Scotland would mean moving the trade-off in the opposite direction: sacrificing some equity in favour of potentially greater efficiency. This could produce an improved allocation of resources in the longer run and thus incentivise growth and ultimately generate additional revenues.

As we shall see, there are a number of important considerations which we believe rule out the full fiscal autonomy position in a unitary state (and indeed in a federal state), and, therefore, in this pamphlet we argue in favour of a fiscal federal structure that falls short of full fiscal autonomy.

There are separate arguments for fiscal federalism in Scotland which, although related to theoretical propositions drawn from economics, are more to do with political accountability. David Heald (1990) eloquently expressed one aspect of the accountability view:

‘Such an arrangement [a fiscal federalist arrangement] is essential for the constitutional accountability of a Parliament which would possess extensive legislative
responsibilities and expenditure programmes. Moreover, there would be much stronger incentives to fiscal responsibility under a financial arrangement whereby a Scottish Executive must justify to a Scottish Parliament, electors and taxpayers, its chosen trade-off between services and taxes.

The last sentence of this argument is similar in spirit to the economic case for fiscal federalism that we make in this pamphlet.

A second political aspect relates to the constitutional settlement in the UK, in particular the possibility of a political party of one colour being in office in Westminster and a different party in Edinburgh. Since under the current settlement, funding for the Scottish Parliament is essentially at the behest of the political party in office at Westminster, a constitutional crisis could arise if there were disagreement between the two parties over the bloc grant allocation. We believe that these arguments are in themselves powerful ones in favour of some form of fiscal federalist solution for Scotland. However, the main focus here is the economic trade-off between equity and efficiency.
THE THEORY OF FISCAL FEDERALISM

The ‘traditional’ theory of fiscal federalism considers the provision of goods financed by taxes and the appropriate revenue collection system at the regional level. We will sometimes also use ‘sub-central government’ (SCG) for level(s) of government below that of ‘central government’ (CG). The case for fiscal federalism as built by economists has to consider:

• How best to provide public goods and services: at the regional or federal level? And how best to finance public spending at the SCG level?
• How to design a system that imposes hard – rather than soft, budget constraints on the lower tiers of government?
• How best to provide for needs equalisation between regions?
• How to design a fiscal federal system that effectively stimulates economic growth?
• What is the link between fiscal federalism and monetary union, especially in a country such as the UK?

Public goods at the regional or federal level
The basic principle in the traditional theory of fiscal federalism is that SCG should have the ability to provide goods and services that match the particular preferences and circumstances of its constituents. The key presumption is that the provision of public services should be located at the lowest level of government encompassing geographically the relevant
costs and benefits. In that way efficiency and economic welfare can be increased above that generated by a more uniform allocation mechanism.

This ‘benefit rule’ is a standard result in public finance. Rational decisions are much more likely to be made when people in a ‘benefit region’ have to pay the costs as well as enjoying the benefits of public expenditure. Goods which are ideal candidates for centralised provision, because their benefits extend nationwide (or because there are economies of scale) are foreign affairs, defence and interregional infrastructure such as transport and telecommunications. But many other public goods have benefits that are locationally circumscribed – such as the local fire department, street infrastructure, and spending on health and education to name a few.

The functions of macroeconomic stabilization and income redistribution should also be left with central government. With high capital mobility, a fixed exchange rate and a unitary interest rate, fiscal expansion in a single region within a country would spill over into other regions. Redistribution at the local level is hampered by the mobility of households. For example, the provision of more generous social security in one region will likely lead to an influx of poor and an exodus of higher income individuals who have to bear the tax burden.

Hard and soft budget constraints
Below we discuss in detail the kind of taxes and grants that would be required to pay for public expenditure in Scotland. As we shall see, grants from the centre are needed in any fiscal federalist solution in order to ensure that the objective of needs equalisation is satisfied. However, the principle of equalisation, effected by a bloc grant, raises the ‘moral hazard’ issue caused by
the lack of a hard budget constraint on public spending in Scotland. “Needs” are elastic and might be reduced by properly targeted SCG spending on, for example, health education.

Scotland’s current block grant adjustment formula, Barnett, is population rather than needs related. However, conceptually if greater “needs” delivers more “grant” distortionary effects can come into play. If a region knows that the size of the bloc grant it receives is related to the size of its needs, the incentive to reduce its fiscal imbalance is reduced: in effect it faces a soft budget constraint. Moreover, money received in the form of a bloc grant from the central fiscal authority will invariably be spent, rather than used for tax cuts, by the regional fiscal authority. Equally a cut in the size of grants from the centre leads to lower expenditure at the devolved levels.

This traditional view has been updated by the ‘new fiscal federalism’ (Oates, 2004), which takes a public choice perspective. This contends that politicians and civil servants do not necessarily maximize the welfare of the electorate; rather they are concerned with their own utility – and for reasons of personal satisfaction, having control over a large budget is better than a small budget. This public sector as a monolith (Leviathan) argument is now influential and implies that fiscal federalism will restrain the behaviour of a revenue-maximizing government. At issue is how to align more closely the decisions of politicians and civil servants (the agents) with those of the electorate (the principal).

5 See Hines and Thaler, 1995
7 See Buchanan and Brennan, 1980.
8 In an earlier Allander Series paper Nick Crafts highlighted the impact of misaligned objectives between principals and agents with respect to service delivery. Here the focus is on the impact of such misalignment on revenue raising.
From the electorates perspective, horizontal tax competition between regions can have the dual benefits of stimulating private enterprise and reducing the scope for wasteful government spending. Therefore increased fiscal decentralization should limit the size of the public sector. Furthermore, increased tax competition between jurisdictions need not mean reduced provision of public goods because the tax base may grow in an improved fiscal environment. However, competition between regions in the UK is limited because only the Scottish Parliament currently has the ability to change personal income taxes and the English regions do not have elected assemblies.

In any case, the benefits of a harder budget constraint might be lost unless central government can credibly commit not to rescue an over-spending SCG or distance itself from political pressures from SCG to raise spending limits. This is a so-called “time inconsistency” issue. Ensuring time consistency is an important part of the institutional framework which ensures the credibility of a fiscal federalist system.

What might be compromised in a move to a harder budget constraint - the closer matching of spending and taxation in Scotland - is the insurance function played by central government. Regions affected by asymmetric economic shocks may be supported by transfers from CG, but this is likely to be more difficult when SCG spending and taxes are closely matched. Such asymmetric shocks could well occur if Scotland was, say, overly reliant on North Sea oil tax revenues, known to be quite variable over time.

9 Empirical studies give some support for the Leviathan hypothesis. See, for example, Oates (1985), Grossman (1989) and Ehdaie (1994).

10 In the last decade North Sea Oil revenues have varied from little more than £1b to in excess of £5b. Such variability is small in the context of an overall UK budget of approaching £300m, but significant in the context of a Scottish Executive budget planned to rise to £25b.
Optimal currency area issues and the case for fiscal federalism

In many ways the prior question for Scotland before considering degrees of fiscal federalism is to establish whether fiscal federalism or full sovereignty is optimal for the Scottish economy. Approaching this from an economic, as opposed to a political perspective the issue hinges on whether the UK or Scotland is a natural currency area.

The optimum currency area literature suggests a number of criteria that should be satisfied for a country or region, like Scotland, relinquish control over its monetary policy. In this section we consider the implications of the optimum currency area literature for fiscal federalism, and the economic implications of Scotland leaving the UK monetary union.

We believe that it is strongly in Scotland’s interest to maintain the currency union with the rest of the UK – i.e., continue to use the pound sterling, or, if the UK joins the euro, then to adopt that currency. We argue for this because if Scotland did not have the same currency as the rest of the UK it would face enormous strains on its trade and investment linkages with what is easily its largest trade partner – the rest of the UK. A floating exchange rate might impart unwelcome macroeconomic shocks onto Scotland, trade with the rest of the UK might fall, or would be under strain as the exchange rate floated, and costs would be incurred in restructuring Scottish trade away from the rest of the UK.

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12 Békesi and Prusa, 2003, show how difficult it is for countries to create new trade partners.
The logic of having a common currency between two regions is that by simultaneously reducing transaction costs, currency risk and the opacity of relative prices encourages trade. Studies looking at countries which have left a currency union find that trade integration with the remaining members falls by about one-half from the level associated with monetary union in the year or so immediately following exit. A possible scenario is that even outside the UK monetary union, Scotland’s trade intensity with it remains high for many years, but in the meantime Scottish business is caught between the costly effects of exchange rate volatility on its trade with the remaining members of the UK monetary union, and incurring the costs of finding new trade partners in the EU and elsewhere. We draw the conclusion that the trade adjustment costs that Scotland would incur over the long-term from leaving the UK monetary union would be drawn out and might be unacceptably high. Indeed, given that much of Scottish trade is in the financial services sector, and that this sector trades almost exclusively with the rest of the UK, it is highly probable that this sector would rapidly shift its operations over the border to avoid the vagaries of a flexible exchange rate that would almost inevitably follow Scotland’s exit from the monetary union.

\[\text{\begin{footnote}{See Glick and Rose, 2002.}\end{footnote}}\]

\[\text{\begin{footnote}{In the most recent year for which there is data, 2000, 51.3 percent of Scottish exports were to the rest of the UK, the remainder being to the rest of the world.}\end{footnote}}\]

\[\text{\begin{footnote}{Another interesting aspect of Scotland's choice of currency area is the finding of Frankel and Rose (2000) that the beneficial effects of a currency union work only through trade creation and not through macroeconomic influences or the tying of monetary policy to a non-inflationary trade partner.}\end{footnote}}\]
This brief overview suggests that it is in the interests of Scotland to maintain its links with the UK monetary union. Given this, does the monetary union within the UK constitute an optimum currency area and what are the implications of the monetary union for fiscal federalism?

In a monetary union a region gives up two instruments of macroeconomic management – the exchange rate and monetary policy. This may not matter from a macroeconomic point of view – maintaining full employment and a stable price level, given one of two conditions: either macroeconomic shocks are symmetric with the rest of the currency area, or, if asymmetric, labour is mobile between regions.¹⁶

Although labour mobility is high within the UK, there are a number of related issues worth noting. First, although labour may be willing to migrate, it may not have the necessary skills to do so and it may take a considerable time for people to retrain. Therefore, a region could suffer a prolonged period of unemployment. Also, it is not entirely clear in the context of the UK that labour mobility is always going to be the best shock absorber. Although it is difficult to cost, to the extent that people move to the already congested parts of the UK it will contribute to the rather unbalanced economy and housing market in the UK. Also, Scotland’s well known demographic imbalance suggests it is worth discouraging movement out of Scotland and, indeed, attract new talent in.¹⁷

¹⁶ The relevance of inter-regional labour mobility to the optimum currency area question was first discussed by Mundell (1961). Kenen (1969) argued that the more industrially diversified a country, the less asymmetric would be shocks – something that we take up later in this section. McKinnon (1963) argued that a high degree of openness – such as with Scotland’s trade with the rest of the UK, suggested a fixed exchange rate because changes in nominal exchange rates could not affect the real exchange rate due to an absence of money illusion. With its high dependence on export industries Scotland is clearly an ‘open’ economy.

¹⁷ See Joshi and Wright, 2004.
Significant theoretical work has been done on the symmetry of macroeconomic shocks at the regional level. Research on business cycle correlation suggests that correlation is higher within countries than between countries.\(^{18}\) There is not much difference between UK regions; the average correlation coefficient is approximately 0.7.\(^{19}\)

The high regional business cycle correlation in the UK suggests that the role of macroeconomic stabilisation should largely be left to CG. Indeed risks are pooled or co-insured in a monetary union: if Scotland suffers an adverse shock relative to the rest of the UK its payments to the centre fall while its receipts from the centre increase. The type of risk can also be shared in a monetary union through highly integrated capital markets which are usually associated with a high level of monetary integration.\(^{20}\)

It might be tempting to conclude that reduced financial market integration with the rest of the UK – following exit from the UK monetary union – would reduce the degree of specialization of the Scottish economy. That would allow Scotland to provide its own insurance against economic shocks. However, it seems plausible that:

(a) As capital market integration of Scotland with the rest of the UK and/or the rest of the world will remain high, that leaving the UK monetary union will have little effect on the degree of specialization of the Scottish economy.


\(^{19}\) See Barrios et al. 2001. See also Clark and Wincoop, 2000, for a broader international perspective that finds a similar level of correlation. Rose and Engel, 2000, find that membership of a currency union usefully raises business cycle correlation.

\(^{20}\) Kalemli-Ozcan et al. point out that with highly integrated capital markets, such as between Scotland and the rest of the UK, there is a high degree of consumption risk-sharing. A region suffering an adverse shock being able to borrow from the other regions.
(b) That even if capital market integration did fall, the degree of industrial specialization would change only slowly so leaving Scotland's specialized macroeconomy open to asymmetric shocks.
(c) Less specialization in the Scottish economy following leaving the UK monetary union, even if it did occur, would be undesirable because it would represent the unwinding of the allocative benefits of specialization according to comparative advantage.

We conclude that Scotland breaking its link with the UK monetary union would have an adverse effect on its trade and investment. But there are grounds for using regional fiscal policy for the purposes of economic stabilisation—especially as continued outward labour migration might be undesirable both for Scotland and the rest of the UK. There is a quite high correlation between regional business cycles in the UK, but this does not completely rule out a local stabilisation role for fiscal policy. There is some scope for stabilisation from the periphery as well. Hence the question arises as to whether it is best to leave all of the stabilisation role to the centre?21 We return to the stabilising role for fiscal policy later.

Fiscal federalism and economic growth
Although fiscal arrangements are not central to economic growth, there may nevertheless be an important link. The key economic argument in favour of fiscal federalism, that it improves efficiency in the use of resources (“allocative efficiency”), should also apply in a dynamic—economic growth—framework.22 For example, the greater ability of local

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21 This is essentially the view articulated by Krugman, 2003.
politicians to reflect local preferences on education, innovation, and the infrastructure could have an important influence on growth. A second argument, and one we believe may be of considerable importance for Scotland, is that the current devolution settlement does not give local politicians an incentive to improve economic growth. At present the Scottish Parliament is given a lump sum, based on the Barnett formula, which is spent on public services and goods. Politicians have little incentive to spend much of the budget on goods and services which might raise economic growth since the benefits of improved growth, in terms of increased tax revenue, accrue to the exchequer in London. A third argument, which is related to the previous one, is that fiscal federalism might not only provide incentives for local politicians to consider local preferences but also to spend time searching for innovations in the production and supply of public goods and services which could result in their costs and prices being lower.

Another argument in the theoretical literature is that by lessening the concentration of political power and promoting some tax competition, fiscal federalism loosens the grip of vested interests on public policy, which promotes democracy and (longer term) economic growth.

Achieving allocative efficiency, and thereby contributing to improved growth, in practice has two dimensions: not only the incentivising dimension, associated with greater revenue powers discussed above, but also improving productivity on the spending side. Many feel the potential of devolution to achieve more efficiency in public expenditure in Scotland has not been fully grasped. For fiscal federalism to work the appropriate institutional framework has to include a willingness on the part of the local politicians to abide by the rules of a hard budget
constraint. But, as Nicholas Crafts demonstrates in his Allander lecture, there is some evidence to suggest that Scotland is more producer-orientated and resistant to competition, particularly in public services, so undermining the potential gains in allocative efficiency offered by the current degree of fiscal devolution.

There have been a few empirical studies of the growth–fiscal federalism link. Oates (1985), for example, showed, in a study of a mix of 43 industrialised and developing countries, that the average share of central government spending was 65 per cent for the industrialised countries and 89 per cent for the developing countries: industrialised countries therefore seem to have much more fiscal decentralisation than developing countries. Therefore countries with high per capita income, which have enjoyed sustained periods of economic growth to reach their current income levels, have greater levels of fiscal decentralisation than low growth/low per capita income countries. But the key question here is: is fiscal decentralisation a cause or consequence of growth? The evidence on causality is inconclusive. More recent studies, based on regression analyses, report that there is a statistically significant relationship between fiscal decentralisation and growth but, intriguingly the relationship is often negative: increased fiscal decentralisation is associated with slower growth. However, in general these studies are unsophisticated in the way they treat causality and it is possible that the negative result is spurious.

23 See, for example, Oates, 1999, and Bahl and Linn, 1992.
25 Thie en’s study shows that in moving from a low to medium per capita income level there is a positive association between fiscal decentralisation and growth, while the move from a medium to high level of per capita income level produces a negative association.
At best, it seems, that the empirical evidence on the fiscal federalism – growth link is ambiguous. Recently a number of researchers have argued that decentralisation of fiscal policy, by bringing government closer to the people, may strengthen social capital, which in turn could boost growth. There are a number of reasons why the devolution of fiscal policy may improve social capital. In particular the decentralisation of fiscal policy should lead to stronger links between the community in general and government and encourages community-wide participatory initiatives. De Mello (2000) seeks to test the link between fiscal federalism and social capital. He uses three social capital indicators: confidence in government, civic cooperation and associational activity for 29 market economies. An indicator of vertical imbalances does show the expected relationship with respect to the different measures of social capital; other indicators of fiscal decentralisation prove to be statistically insignificant. The results suggest it may be possible that social capital can be boosted when local differences in needs and preferences are taken into account by policy makers.

26 The discussion here draws on de Mello (2000).
27 The data was originally collected by the World Values Survey for the period is 1980-81 to 1990-91.
28 It is negatively related to both Confidence in Government and Associational Activity and positively related to Civic Cooperation.
EXPERIENCE OF DEVOLVED FINANCING IN OTHER COUNTRIES

In this part of the pamphlet we consider the key objectives of an effective devolved fiscal system, its principal characteristics and the experience in other countries of fiscal federalism. As already noted an optimal system of financing will seek to balance equity and efficiency (achieve appropriate horizontal and vertical balance) without undermining macro-economic stabilisation. For Scotland this would mean trading off some equity in favour of greater allocative efficiency, with potential knock-on benefits for growth.

The principal characteristics of an optimal system are:

a. Expenditures and own-source revenues better-matched through the assignment, devolution or sharing of an agreed range of taxes;

b. Appropriate intergovernmental transfer mechanisms to ensure equity considerations are not sacrificed excessively;

c. Provision for an agreed regional borrowing capacity.

Taking the first of these characteristics, the essence of the argument is that there should be a link between the benefits of public goods and services and their price in the form of the tax raised in the region to finance them. Any successful fiscal federalist solution should have taxation at the margin as an important component. This simply means that for any given fiscal settlement for Scotland, the ability to increase
expenditure in one particular area has to be paid for either by a reduction in spending in another category or an increase in taxes raised in Scotland. It is useful here to set out some nomenclature relating to taxation.

An assigned tax is one whose proceeds are either shared between the different levels of government on the basis of derivation (i.e. tax revenue is attributed to the particular geographical area where it was generated) or equalization tax revenue is allocated (on the basis of needs or resources). A devolved tax is one for which the sub-central level of government possesses the power to vary the base and/or rate at which that tax is levied. As we saw earlier, the key idea underlying a tax system in which revenue is either assigned or devolved to the SCG level is that it communicates to households and business units the cost of consuming different levels of local public goods and services. Theoretically, this should result in a more efficient allocation of these goods.

Needs equalisation involves the attribution of tax revenue (and explicitly public expenditure) to particular geographical areas or units of government on the basis of criteria other than derivation (David Heald, 1990).

The tax assignment problem refers to the determination of the vertical structure of taxes within a fiscal federation. There is vertical imbalance when revenues raised by SCG are considerably less than expenditure – requiring some form of subsidy from central government, as with the bloc grant received by Scotland from Westminster.

29 Heald (1990) notes that assigned revenues can contribute a sense of ‘creating entitlement’ to the revenues which he regards as ‘very important aspect to the fiscal psychology of the relationship between devolved Parliaments and the UK Treasury’.

30 ‘Derivation involves the attribution of tax revenue to particular geographical areas or units of government on the basis of where that revenue was generated’ Heald (1990).
Devolution and assignment of taxes
The key point in designing a vertical tax structure is to attempt to match revenue raising by SCG to expenditure levels by SCG. However, some areas have higher taxable capacity – and so can provide more services for lesser tax levels – and as we noted above the mobility of people or capital between regions also presents difficulties for designing the vertical tax structure. Moreover, the mobility of economic agents increases the more local the level of government. A good example of this would be the number of households who use the services, such as art galleries and music, provided by Glasgow City Council but to avoid the (property) taxes levied to pay for these services choose to live outside the city boundary.

This problem with differential regional taxes, combined with labour mobility, on the face of it suggests that the Scottish Parliament should avoid the differential taxation of labour – that is, personal income tax should not be devolved because of the risk of erosion of the tax base through the outmigration of labour in response to higher local taxation. However, strictly speaking the Parliament should avoid taxes which are not linked to any benefits on mobile households or firms, while taxing them for the benefits they do receive from public services. Communicating to taxpayers the cost of consuming local public goods could result in an efficient allocation of these goods. So some devolution of income tax may well be appropriate, as is indeed the case at the moment in Scotland.

The same argument applies to capital taxes: levy taxes on capital to the extent that the government provides local inputs to business which increase the productivity of capital. However, capital is so mobile that the broad thrust of the fiscal federalism literature is that the ability to alter corporation tax should usually be left with the centre.
Natural resource taxes are usually not seen as a suitable candidate for a SCG government tax since the base for these is usually unevenly distributed across regions. It has also been argued that the extraction of profits (or ‘economic rent’), from natural resources should be the prerogative of the nation state and for the benefit of the whole nation.\(^{31}\) Perhaps the most convincing argument against having a devolved natural resource tax in the Scottish case is the potential volatility of revenue from its key natural resource, namely North Sea oil. Securing a significant part of your assigned budget from a highly volatile revenue source (dependent on international production levels and dollar exchange rate movements) poses significant risks for recurrent expenditures over the longer term.

Customs and excise taxes and local purchases taxes are usually not regarded as suitable for devolution, because it is undesirable to have rates differing dramatically between regions. This can lead to an inefficiently excessive amount of travelling over the border to avoid the tax or duty.\(^{32}\)

On the other hand, other minor taxes such as betting tax, stamp duty, vehicle license, business license taxes, TV taxes and various types of user fees for local services could all potentially be devolved to the Scottish Parliament (as they are in some other countries). Property taxes are also well-suited for devolution and they have been already devolved in the UK: in the case of non-domestic rates to the Scottish Parliament\(^{33}\) and in the case of Council tax to the lowest tier of SCG, local government across the UK.

\(^{31}\) See Norregaard, 1997.

\(^{32}\) Differential sales taxes are more observed in larger geographic units where the cross border flows are curtailed by the distances involved, this is clearly the case in the US and less so within more densely populated European nations.

\(^{33}\) In particular the non-domestic rate is set uniformly by the Scottish parliament and pooled centrally across Scotland to equalise for different tax bases.
On the face of it, the unsuitability of the major taxes for devolution would seem to limit the possibility of addressing the vertical fiscal imbalance which currently exists in the U.K. The traditional arguments against devolution of the tax base is that there are significant costs of administration, fixed start up costs and also that it is likely to impart a distortionary bias into the overall national tax structure. It may well be that the IT revolution has reduced (perhaps greatly) the costs of administration, although the start up costs are indeed likely to be significant. Furthermore, it is not entirely clear that the distortionary aspects of different tax bases are any different to the potentially distorting effects of different rates of tax. Experience in the U.S. certainly suggests that tax base devolution can be made to work. However, this is clearly a highly technical issue and although it should not be ruled out as a potential source of revenue further consideration of the costs and potential distortions are required before it can be recommended in the U.K. context.

However, there is no reason why the key taxes discussed above should not be assigned to the SCG and this could represent the major revenue source for the Scottish Parliament.

Intergovernmental Transfers

The second characteristic of an optimal fiscal federalist system is the use of transfers from CG to SCG. Intergovernmental grants can have three roles in a federated tax system: 34 fiscal equalisation across regions, improving the functioning of the overall tax system, and internalising spillovers to other regions. Theory suggests that to limit spillovers from one region to

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34 See for example Oates, 1999.
another, conditional grants should be used to finance a proportion of the SCG expenditures.\textsuperscript{35} Such conditional grants are currently not part of the fiscal set-up in the U K, but would be necessary if components of expenditure with important spillover effects were to be devolved.

The objective of fiscal equalisation (‘horizontal equity’) is usually thought to be best achieved through the use of unconditional grants. These transfers are usually based on the ‘fiscal need’ and the ‘fiscal capacity’ of each region, so that regions with a high fiscal need-capacity ratio will receive a large transfer from the centre. Scotland may have a higher fiscal need due to its poorer health record and the greater geographical dispersion of its population compared with the rest of the U K. Unconditional grants increase regional income without affecting local spending priorities (which should depend on local preferences).

Borrowing capacity

We noted above that there are important arguments for having the redistribution and macroeconomic stabilisation roles of government left at the centre and this means that not all revenues should be devolved to the regions otherwise the Central Government would have insufficient tax raising powers and there would be reversal of the current vertical imbalance in favour of the SCG.

One way in which regions can supplement their revenue is by borrowing. There are four models of how SCG debt accumulation is disciplined: market discipline, ‘collegiate’ administrative discipline, rules based discipline and borrowing targets set by C G.\textsuperscript{36} None of these are perfect. A few high-

\textsuperscript{35} That is, where the marginal social cost is equal to the marginal social benefit (Boadway and Hobson, 1993).

\textsuperscript{36} This characterisation is based on Ter-Minassian and Craig, 1997.
Income countries allow SCG borrowing disciplined by-and-large by capital markets. These include Canada, Finland, Portugal and Sweden. Four conditions are necessary for effective market discipline. Markets must not be required to treat governments as privileged borrowers, there should be adequate information flow to lenders on SCG financial and economic conditions, bailout should be excluded – to prevent moral hazard, and borrowers should have in place institutional arrangements that promote adequate response to deteriorating credit ratings should these occur.37 Given the high level of development of UK financial markets, one might think that such a system could work here. But there are dangers: even in such a highly developed market economy as Canada, market discipline has not been tight when judged by the rapid increase in provincial indebtedness and deterioration in provincial credit ratings. Only with a lag of more than a decade have the most indebted provinces acted meaningfully to contain growth in their indebtedness.38 There is a warning here in that the efficiency gains expected from tax devolution may not appear very rapidly.

Rules based systems – where the rules are specified in laws – are in place in the USA, Spain and Japan. Thus, borrowing at some levels of SCG is limited to the estimated debt service capacity of a SCG or to some other indicator of creditworthiness. A rules based system also has the advantages of transparency and evenhandedness. The main disadvantage of this system is that SCG may attempt to circumvent the rules by, for example, reclassifying current spending as capital spending or moving some spending off balance sheet.

In a collegiate administrative system the centre and the region agree reasonable borrowing limits. There is an obvious political dimension in the bargaining process. Indeed, the Australian system of administrative controls - whereby the federal and state governments agree borrowing limits in the Loan Council, has been supplemented with efforts to introduce some market-type discipline.39

A fourth debt management arrangement is direct control of SCG borrowing by CG. This is the system in effect in the UK for local government whereby CG annually approves borrowing limits for local authorities and restriction may be placed on the loan characteristics including the term and type of loan.40 Inflexibility is a possible disadvantage of this method of control, especially given informational advantages on local needs that SCG may possess in comparison with CG.

To summarise, the experience of other countries demonstrates that: federal countries exhibit a mixture of tax sharing, assignment and devolution of tax bases; there are common patterns in federal countries in terms of the types of taxes that are typically reserved, assigned and devolved; and practically all countries (the main exception is the United States) have extensive equalisation systems - typically by transfer grants.

In Scotland about 60% of public expenditure already has been devolved to the Scottish Executive. The devolution of expenditures on health, education, housing and community amenities, social security and welfare, and general public services to SCGs is common in many EU countries - though not all together in any single country.41 But in the division of

taxing powers between SCG and CG, the UK differs markedly from other countries.

Table 1 shows the composition of SCG revenues in eight EU countries. Most striking is the heavy reliance – almost three-quarters of total revenues – that the UK has on grants to SCGs as their main revenue source. SCG own-taxes in the UK amount to only 14 percent of SCG revenues (these figures are UK-wide). Apart from the Netherlands, the vertical imbalance is greatest in the UK.

<table>
<thead>
<tr>
<th></th>
<th>Tax revenues</th>
<th>Non-tax revenues</th>
<th>Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>79</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>Denmark</td>
<td>51</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>France</td>
<td>47</td>
<td>19</td>
<td>34</td>
</tr>
<tr>
<td>Italy</td>
<td>34</td>
<td>14</td>
<td>53</td>
</tr>
<tr>
<td>Netherlands</td>
<td>10</td>
<td>14</td>
<td>76</td>
</tr>
<tr>
<td>Spain</td>
<td>37</td>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td>Sweden</td>
<td>75</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>UK</td>
<td>14</td>
<td>13</td>
<td>73</td>
</tr>
</tbody>
</table>

Source: OECD (2002, Table 3.3). Percentages may not add to 100 due to rounding.

Table 2 classifies SCG taxes by tax base. It shows that at the SCG level the UK is alone among the eight EU countries in heavy reliance on grants from CG together with an almost total dependency on property taxes as the single source of tax revenue.
<table>
<thead>
<tr>
<th></th>
<th>Belgium</th>
<th>Denmark</th>
<th>France</th>
<th>Italy</th>
<th>Netherlands</th>
<th>Spain</th>
<th>Sweden</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income and profits tax</td>
<td>55</td>
<td>93</td>
<td>8</td>
<td>26</td>
<td>100</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Taxes on payroll and work force</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes on property</td>
<td>6</td>
<td>7</td>
<td>52</td>
<td>22</td>
<td>63</td>
<td>36</td>
<td>99.7</td>
<td></td>
</tr>
<tr>
<td>Expenditure taxes</td>
<td>39</td>
<td>11</td>
<td>26</td>
<td>38</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other taxes</td>
<td></td>
<td>34</td>
<td>45</td>
<td>3</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: OECD (2002, Table 3.4). Percentages may not add to 100 due to rounding.
Table 3 gives a somewhat more detailed picture of SCG taxes in the eight countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Sub-Central Government Taxes: 8 EU Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>Regions have almost complete autonomy over 40% of their revenues (regional taxes) and rate autonomy, but not tax base autonomy, over the other 60%.</td>
</tr>
<tr>
<td>Denmark</td>
<td>Income tax covers about 90% of SCG tax revenues. Each SCG has tax rate autonomy, but tax base set by central government. Municipalities' tax rates range from 13-22+%. Upper and lower limits are constrained by CG.</td>
</tr>
<tr>
<td>France</td>
<td>SCG does not control tax base. Communes, departments and regions vote independently on tax rates. Limits on rates are set by CG.</td>
</tr>
<tr>
<td>Germany</td>
<td>Länder control 63% of tax revenue and 31% of expenditure taxes. Property tax a minor component of total SGC revenue.</td>
</tr>
<tr>
<td>Italy</td>
<td>From 1992 tax responsibility transferred to SCG. From 2001 grants replaced with VAT sharing – SCG can vary the tax rate within limits set by CG.</td>
</tr>
<tr>
<td>Netherlands</td>
<td>SCGs choose which taxes to levy within relevant Acts, and can vary tax rates.</td>
</tr>
<tr>
<td>Spain</td>
<td>Tax sharing with central government, and SCGs can set their own income tax rates but not tax bases.</td>
</tr>
<tr>
<td>Sweden</td>
<td>SCG tax revenue is from a single tax base – personal income. Freedom to set tax rates but not bases.</td>
</tr>
<tr>
<td>UK</td>
<td>Council tax on imputed capital value paid by all households, direct to local government; non-domestic rate set by Scottish and UK parliaments. Scottish Parliament can also alter the basic income tax rate within specified margins but not tax base. Size of bloc grants take into account level of local taxes raised.</td>
</tr>
</tbody>
</table>

Source: extracted from OECD (2002).
Table 4 shows the structure of state revenues in three non-European federal countries.

| Table 4 |
|-----------------|-----------------|-----------------|-----------------|-------------------------------|
| STRUCTURE OF STATE TAX REVENUES AND GRANTS AS A PERCENTAGE OF STATE INCOME IN 3 FEDERAL COUNTRIES |
| Income tax (as % of total tax income) | Property tax (as % of total tax income) | Expenditure taxes (as % of total tax income) | Other taxes (as % of total tax income) | Grants as a percentage of State government income |
| Australia | 0 | 30 | 41 | 29 | 59 |
| Canada | 43 | 4 | 40 | 13 | 22 |
| USA | 37 | 4 | 56 | 3 | 29 |


One striking feature of Table 4 is the importance of grants from the centre to the sub-central tier of government even in well-developed federal systems – it ranges from 22% to 59%. The figure of 22% is in fact the lower bound internationally and indicates that in any new fiscal settlement for Scotland there will always be a Barnett, or bloc grant, component.

The tying of SCG expenditures and own-revenues more closely together in many countries goes some way to imposing a hard budget constraint on SCG. This is helpful in promoting rational resource allocation by SCG because it eliminates the moral hazard caused by the exclusive use of CG grants.

In sum, the main message is that the vertical fiscal imbalance that we observe in the UK is at odds with the experience elsewhere. In particular, other countries place much greater reliance on addressing vertical fiscal imbalances using expenditure and income taxes, rather than relying almost
exclusively on property taxes. A few high-income countries also allow SCG borrowing, disciplined by capital markets. These include Canada, Finland, Portugal and Sweden. Rules-based systems, where the rules are specified in law, are in place in the USA, Spain and Japan. Direct control of SCG borrowing by CG is the system in effect in the UK.
THE SCOTTISH PERSPECTIVE

In this section we turn to a more detailed discussion of the implications of fiscal federalism for Scotland and the rest of the U.K. We start by giving a brief overview of the current picture with respect to taxation and spending in Scotland. We then go on to present a sketch of what a fiscal federalist system might look like for Scotland, based on the arguments made in previous sections. We discuss the choices for Scotland around the revenue raising issues; the design of a grant system; and the borrowing options. First, though, we set the scene in terms of the current Scottish position.

The current Scottish position
Under the Scotland Act (1998) various expenditure functions have already been devolved to Scotland, mainly in the areas of education, health, agriculture, economic development and transport, environment, law and home affairs and social work and housing. Reserved areas retained by Westminster include defence, employment, financial and economic matters, social security and international relations. This division appears to be rational in that expenditures on the reserved items yield U.K-wide benefits and might also enjoy economies of scale. Moreover, the benefits generated by the devolved expenditures are probably more localized, and, as we argued in the first section, local polities are likely to be better placed to identify potential benefits than is distant central government.
In the period 2001-02 so-called identifiable spending (that is, spending which can be identified as having been incurred on behalf of the population of a particular country or region) in Scotland was £31.6 billion; the break-down of this expenditure is given in Table 5, with the figure for the amount of devolved expenditure recorded in brackets. The breakdown of non-identifiable expenditure, which totalled £4 billion, in 2001-02, is also given in Table 5. To obtain Scotland's total expenditure in this period, other items of expenditure (namely, the sum of Local Authority and Central government debt interest and other items, totalling £3.8 billion) are added to the sum of total identifiable and non-identifiable expenditure to get an overall expenditure figure of

<table>
<thead>
<tr>
<th>Table 5</th>
<th>IDENTIFIABLE AND NON-IDENTIFIABLE TOTAL MANAGED EXPENDITURE IN SCOTLAND 2001-02</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Identifiable £m</td>
</tr>
<tr>
<td>Defence</td>
<td>2,069</td>
</tr>
<tr>
<td>Overseas services</td>
<td>432</td>
</tr>
<tr>
<td>Education</td>
<td>4,992 (4,992)</td>
</tr>
<tr>
<td>Health and personal social services</td>
<td>7,266 (7,266)</td>
</tr>
<tr>
<td>Roads and transport</td>
<td>1,159 (985)</td>
</tr>
<tr>
<td>Housing</td>
<td>1,151 (1,151)</td>
</tr>
<tr>
<td>Other environmental services</td>
<td>1,703 (1,656)</td>
</tr>
<tr>
<td>Law order and protective services</td>
<td>1,754 (1,541)</td>
</tr>
<tr>
<td>Trade, industry, energy and employment.</td>
<td>1,225 (766)</td>
</tr>
<tr>
<td>Agriculture, fisheries, food and forestry</td>
<td>1,351 (595)</td>
</tr>
<tr>
<td>Culture media and sport</td>
<td>643 (454)</td>
</tr>
<tr>
<td>Social security</td>
<td>10,163</td>
</tr>
<tr>
<td>Miscellaneous expenditure</td>
<td>225 (202)</td>
</tr>
<tr>
<td>Total</td>
<td>31,632 (19,607)</td>
</tr>
</tbody>
</table>

Source: GERS (2003). Numbers in brackets refer to identifiable expenditure by the Scottish Executive.
£39.4 billion. In terms of identifiable expenditure, it is clear that the Scottish Executive already has control over the majority of spending units with the exception, of course, of social security.

The revenue side of the picture, excluding oil, is given in Table 6. As the GERS report recognises, these numbers are imputed. However, a debate about the validity of these numbers is beyond the remit of this paper and we take the official figures as those most relevant for our discussion (this is the view of other independent commentators – see Jones, 2002). In any case, the actual size of the deficit or surplus does not affect the underlying principles.

<table>
<thead>
<tr>
<th>Table 6</th>
<th>REVENUES, 2001-02. £M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income tax (after tax credits)</td>
<td>7,490</td>
</tr>
<tr>
<td>VAT</td>
<td>5,160</td>
</tr>
<tr>
<td>Social Security contributions</td>
<td>5,230</td>
</tr>
<tr>
<td>Local Authority Revenues</td>
<td>3,060</td>
</tr>
<tr>
<td>Corporation tax (ex North Sea Oil)</td>
<td>2,380</td>
</tr>
<tr>
<td>All other revenues</td>
<td>8,040</td>
</tr>
<tr>
<td>Total receipts</td>
<td>31,360</td>
</tr>
<tr>
<td>Source GERS (2003)</td>
<td></td>
</tr>
</tbody>
</table>

Hence under the UK’s current fiscal arrangements, in the period 2001-02, the gap between government expenditure (£39.4 billion) and revenue (£31.4 billion) in Scotland implies a non-oil budget deficit for Scotland in 2001/2 resulting in net borrowing of £8.1 billion, or a deficit of 10.3% of Scottish GDP. However, if all of the revenue from North Sea oil were to be apportioned to Scotland the gap between revenues and
expenditure falls to £2.9 billion (or 2.8% of GDP)\(^{42}\). We return below to some issues relating to oil revenues.

The current formula for public spending funding in Scotland is based on the Barnett formula.\(^{43}\) This formula only relates to the expenditure items currently devolved to the Scottish Parliament which means that approximately 40% of identifiable public expenditure in Scotland falls outside the remit of Barnett. The formula is a way of sharing changes (not the level) in public spending plans between the participating countries of the Union. Scotland receives a population-based share of the total changes in planned spending on analogous programmes in England or England and Wales. Since the formula is based on population shares, it does not necessarily reflect spending needs.\(^{44}\)

The Barnett formula does not seem a good platform on which to base a future fiscal federalist structure for Scotland as it focuses almost exclusively on the equalisation function at the expense of allocative efficiency. Nor does it reflect changing needs assessment either, other than by arbitrarily slowly managing downwards the initial spending share for Scotland. What are the alternatives?

\(^{42}\) These numbers are calculated using an oil price of $24 per barrel.


\(^{44}\) The Barnett squeeze arises because increases in funding are calculated on a per capita basis, rather than the current baseline level of spending. Because the devolved parliaments have higher per capita spending than England, a given percentage increase in public spending in England would produce a smaller percentage increase in Scotland. In practice, though, there have been a number of ways of by-passing the formula and protecting the initial higher levels of spending per capita in favour of Scotland. Indeed the original expenditure bias in favour of Scotland has been protected automatically by the fall in the population of Scotland relative to the rest of the UK and which has tended to offset the squeeze.
Alternatives to the Barnett formula

What does the forgoing theoretical analysis and comparative evidence suggest would be a sensible degree of fiscal federalism in Scotland? Some advocate full fiscal autonomy. But this extreme approach has two drawbacks. First, the most efficient way to implement the kind of sophisticated social security systems which exist in most countries today is at the national or central level rather than at the sub-national level. Secondly, macroeconomic stabilisation should, for reasons noted earlier, be conducted mainly at the centre. In essence what the full fiscal autonomy approach amounts to is devolving all three economic functions of government – allocative, equity and stabilisation – to the Scottish Parliament. We refer to this model as the ‘straw man’ autonomy position since it does not currently exist in any unitary or federal country. If all the economic functions of government are devolved it is in essence a de facto sovereign or independent government. Of course one variant of “straw man” as full economic independence, is instead to remain in some form of association with the state to which one has been formally attached and to remit a portion of revenues in return for the provision of shared services, say foreign affairs, social security and defence. To do so would, of course, require the consent of the remainder of the former state and the ability to meet the agreed contribution for shared services, as no equalisation element would be present in the relationship.

In this ‘straw man, Mark II’ model all taxes — income taxes, expenditure taxes, corporation tax, North Sea oil tax revenues etc – would be devolved to Scotland and the Executive would become responsible for all of Scotland’s public spending needs, including a payment to Westminster for reserved services.45

45 See Heald, 2003, for a further discussion of this.
The objective of equity between regions has been abandoned in this case. Indeed, given the earlier findings on Scotland’s net government funding deficit, there can be little doubt that the implementation of these policies would lead to a significant reduction in spending in areas which had previously been regarded as important for meeting Scotland’s needs. This shortfall could be met by an unconditional lump sum grant (which is what the theory deems appropriate). However, the proponents of the full fiscal autonomy view in effect eschew the use of such grants. Doubtless they would argue that in the longer run the potential success of the policy in stimulating growth could permit expenditure to return to pre-existing levels or commensurate with needs. However, it is unclear how long that process would take. The failure of the full fiscal autonomy model properly to address the equity issue is one important reason why we do not in practice observe the full fiscal autonomy model in any nation state.

A second important issue concerning the full fiscal federalist position relates to the macroeconomic stabilization role of fiscal policy. At present, this is a Westminster function and in most discussions of fiscal federalism the stabilization role is classed with defense and foreign affairs as items which should be controlled from the centre.46 However, the close correlation between the regional business cycles within the UK noted earlier is a compelling argument against devolving the stabilization role to the Scottish Executive. Given that many of the shocks hitting the UK regions are closely correlated it does not seem efficient or cost effective to have a separate macroeconomic stabilisation function

for Scotland. Moreover, it is highly likely that, the Scottish government would only be able to borrow on less favourable terms than those available to and from the UK Treasury. There are also, of course, the costs of setting up a bond market.

A third important issue relates to the suitability of devolving the key sources of revenue, such as North Sea oil, VAT, corporation tax and income tax. Consider, first, North Sea oil. Although there is certainly some independent academic support for the view that the vast bulk of North Sea oil lies within ‘Scottish waters’ it is not clear that this would be a particularly reliable source of revenue for the Scottish parliament. Revenues from natural resources are not considered to be a good tax base at the regional level. For North Sea oil this conclusion is reinforced because of the variability of the price of oil. It has been shown that the Scottish share of the total tax revenues from North Sea oil varied from 61 per cent in 1977 to a high of 98 per cent in 1982. The fickleness of oil revenues is also reinforced by the fact that it is priced in terms of the US dollar: a depreciation in the value of the dollar, relative to sterling, decreases oil revenues and the recent sharp fall in the dollar suggests that this effect can be quite dramatic. The volatility of oil prices, combined with currency volatility, leads us to discount using oil revenues as a component of the tax base for the Executive. We would argue that these are better channeled through central government, which with its access to a wide range of debt instruments, is better able to offer insurance against the volatilities in revenue that would arise from unanticipated currency and oil price movements. VAT is

47 See Kemp and Stephen, 1999. This is because the (fixed) costs of exploration and development are incurred in Scottish waters and offset against tax liabilities.

48 Davis, et al. (2003) consider that ‘oil funds’ aimed at accumulating assets to be used to insulate fiscal policy from fluctuations in oil tax revenues, in practice have a poor record. And, while Stancke (2003) points to the successful operation of Norway’s Petroleum Fund, that experience may not be transferable to Scotland given that Scotland may well run an oil tax inclusive fiscal deficit that would preclude building up a large stabilization fund.
also probably not well suited to devolution. For one thing the tendency within Europe is towards the harmonization of VAT and this would preclude much, if, any variation within a nation state. And from a practical perspective, because it is a multi-stage tax, the devolution of VAT would be an administrative nightmare. The devolution of both corporation tax and income tax would in principle be feasible (although there are considerable difficulties in unravelling the former) but the fiscal federalist literature indicates that care should be taken since they are taxes on potentially highly mobile firms and households.

An argument can be made for devolving corporation tax powers, along the lines of the current UK approach to corporate taxes within the EU. Clearly, though, for a small open economy and given the mobility of capital, increases could lead to a rapid movement of capital (presumably in the form of headquarters locations) from Scotland to the rest of the world. Some commentators have argued that, there may be an important asymmetry here, in the sense that cuts in corporation tax could lead to an inflow of capital which in global terms would be minimal, but in Scottish terms could be highly significant. This policy would seem to have been pursued successfully in Ireland, and the new EU members Estonia, Hungary, Latvia, and Poland all have corporation tax rates of less than 20% but it would not necessarily be suitable for Scotland. And since other regions in the UK do not have the ability to change corporation tax, to try and pursue such a policy from within the UK could produce a beggar-thy-neighbour outcome. If conversely such an approach was attempted by a newly independent Scotland there may also

be problems with EU rules operating against significant cuts, by an advanced member state already within the EU.

So there is a degree of complexity and uncertainty, particularly with respect to the issues of equity and stabilization, in the extreme case of full fiscal autonomy. It goes too far in trying to address the efficiency function of fiscal policy at the expense of the equity and stabilization aspects. This is presumably why we do not observe the full fiscal autonomy model operating currently in any nation state.

A proposal
Recognising the above problems, what might a realistic fiscal federalist system look like for Scotland? Our discussion here is by no means intended as the last word on this issue. Rather it is meant to contribute to the debate over the most suitable federalist package for Scotland based on economic criteria.

Guided by the fiscal federalist experience of other countries, we propose an approach that avoids the risk and volatility of full autonomy and the poor incentive effects of the current status quo. In other words we try to seek a balance between allocative efficiency and equity. It should deliver a better balance between the horizontal and vertical aspects of fiscal policy and trade-off some equity in favour of stimulating greater allocative efficiency.

This will be achieved by a system that:
• extends the assignment of revenues from an agreed range of taxes and the devolution of a further range of taxes;
• preserves a significant equalization grant to ensure equity considerations are not sacrificed unduly, in line with good practice across the globe;
• provides for an agreed regional borrowing capacity.
In devising a proposal for Scotland we have been guided by the principle of symmetry. In the vast majority of cases of fiscal federalism there exists a common financial framework which operates for all regions/states irrespective of whether they are broadly net contributors to, or net beneficiaries from, the national fiscal settlement. By implication any future financing arrangements for Scotland will have greater transparency and stability if, in principal, they could be applied to other constituent parts of the United Kingdom. This proposal has the potential to be replicated in other parts of the United Kingdom.

Two things that we would like to see debated are that identifiable Scottish Executive expenditure should better be matched by tax revenues raised in Scotland (more vertical balance). The balance of monies would continue to come in the form of equalization grants. Furthermore, in order to give decision-makers an incentive to balance benefits and costs of any proposed expenditure change we propose a ‘marginal tax rule’ - that increased expenditure over-and-above assigned taxes and grants be financed either by a reduction in spending in another category, or an increase in taxes, or if the cost is reasonable, by an increase in borrowing.

We argued earlier that there is some limited scope for the devolution of the main sources of tax revenue. However, even assigning more tax revenues, without devolution of either tax rates or bases, would in itself represent a substantial step in hardening the budget constraint faced by the Scottish Executive and Parliament. The fact that the revenue share was coming to Scotland would create an incentive to politicians to

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50 A fifty percent target for local-sourced revenues is seen as ‘reasonable’ in the review that is currently being undertaken for English and Welsh local authorities. See Balance of Funding - Report, Office of the Deputy Prime Minister, July 2004, HMSO.
engage in policies which are growth friendly, especially if the tax take is related to income in Scotland.

We argued that North Sea oil is not a good tax revenue base for Scotland and therefore we do not believe it should be devolved or assigned. Although we also argued that VAT in Scotland should not be devolved, there is nothing to prevent the revenues raised from VAT being assigned to the Scottish Executive. The same is true of customs and excise duties. Income tax seems equally suited to assignment and also has the potential to be devolved. Indeed, there is already the possibility to alter income tax by 3% either way from the UK rate. So far this power has not been used. Some commentators have argued that the amount is essentially insignificant because it represents a very small proportion of total expenditure and taxes. We would argue on the basis of the experience in other countries, particularly Belgium and Denmark, that a wider discretionary band of plus/minus 7% would be more appropriate or perhaps even no limit at all. In principle, corporation tax is similar to income tax and would therefore seem a natural candidate for assignment. But since mobility is much stronger for capital than labour, and for the other reasons noted earlier, it is less obvious that corporation tax should be devolved.

In sum, our approach emphasises assignment of revenues rather than devolution of tax-raising powers. However, we propose the consideration of the devolution of income tax (for all rates, but not bases) and a package of minor taxes. Table 7 summarises the assignment and devolution aspects of the various taxes that we have in mind.

As discussed earlier, it is likely that any fiscal settlement based on tax assignment/devolution would produce a fiscal deficit (an excess of expenditure over revenue) for Scotland. In
order to deal with this horizontal imbalance we would recommend an unconditional lump sum bloc grant determined

<table>
<thead>
<tr>
<th>Type of tax</th>
<th>Assigned</th>
<th>Devolved</th>
<th>Reasons against (assigning or) devolving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>Yes</td>
<td>Partial</td>
<td>Feasible, but potential problems due to mobility of tax source.</td>
</tr>
<tr>
<td>Corporation</td>
<td>Yes</td>
<td>Partial</td>
<td>Feasible, but difficulties in unravelling tax source. Even greater potential problems over mobility of source.</td>
</tr>
<tr>
<td>VAT</td>
<td>Yes</td>
<td>No</td>
<td>Goes against EU harmonization. Practical administrative complexities.</td>
</tr>
<tr>
<td>Customs+excise</td>
<td>Yes</td>
<td>No</td>
<td>Can result in travel inefficiency problems (border shopping)</td>
</tr>
<tr>
<td>Other duties</td>
<td>Yes</td>
<td>Yes</td>
<td>In particular where these relate to user fees for local services</td>
</tr>
<tr>
<td>North Sea Oil</td>
<td>No</td>
<td>No</td>
<td>Highly volatile and regionally unevenly distributed</td>
</tr>
</tbody>
</table>

on the basis of an assessment of Scotland’s needs at the time of the move to a fiscal federalist system. However, experience in other countries suggests that this is not a straightforward exercise and it is likely to be an especially tricky issue in the UK context since it would be the first time such a decentralization of fiscal policy had taken place. One way of addressing this issue would be to have a lump sum bloc grant at the time of the changeover to the new system such that total revenues were equal to the current Barnett position. Over time this could be phased to a new level derived from a new assessment of needs. We also believe that, at least in the short-run, there should be some mechanism in place to protect the lump sum grant if Scotland did indeed succeed in raising economic growth and
the overall tax base and tax take. A more sophisticated system would provide a reward to Scotland for taking on more risk and potentially raise allocative efficiency and economic growth. Hence, in the longer-term the UK budget would benefit from tax devolution to Scotland if Scottish revenues rose. Ultimately, there should be an incentive for the Scottish polity to create greater tax efficiency in Scotland.

In our particular variant of the fiscal federal model, we propose that overall macroeconomic stabilization would remain with the central UK government. Could there be an additional discretionary role for the Scottish Government to stabilize the economy? The correlation between regional business cycles in the UK is not perfect. Paul Krugman suggested in his Allander Series lecture that this would not be a useful way of using fiscal federalism in Scotland, essentially because it does not seem to have worked in other countries, such as the US. However, in the US most states are constitutionally required to balance their budgets each year, which may explain why regional counter-cyclical policies have been unsuccessful. Although we recognize that the management of a limited counter-cyclical policy represents a serious challenge for a small open economy operating within a monetary union, we do think the flexibility to engage in such a policy could be useful, especially in the presence of asymmetric shocks which are thought to be temporary. Clearly such a policy would not be well suited to dealing with permanent shocks.

Allowing a role for some stabilization, and given the move in the fiscal federalism case away from equity to efficiency, might also mean the Scottish Executive would wish to generate alternative sources of revenue. One possible source would be borrowing. One of the anomalies of the current devolution settlement is the fact that local authorities have a greater degree
of fiscal autonomy than the Scottish Executive in respect of their facility to borrow in times when they face temporary falls in revenue.

While we are convinced that greater tax devolution/assignment would work in the direction of improving efficiency, how quickly the benefits from addressing the vertical imbalance in the current arrangements would appear would rather depend on how the politicians in Edinburgh responded to their new budget constraint. In practice politicians might not understand or might strongly discount the effect of their spending decisions on the level of taxes. If politicians take years, perhaps decades, to recognise the new budget constraint, some equity would have been sacrificed without much, if any, increase in efficiency.
CONCLUSIONS

In this pamphlet we have considered the economic case for a form of fiscal federalism in Scotland. We began by considering the benefits that Scottish trade and employment gain from Scotland being a part of the UK monetary union – sharing a single currency with the rest of the UK. We discuss the implications for decentralised fiscal policy in Scotland that follows from continuing to use the pound-sterling as its currency. In particular, we argued that while most macroeconomic stabilisation for the UK can be performed as it is now through Westminster, there may be some room for the Scottish budget being used to supplement this arrangement.

Our study, by starting from the perspective of economics rather than politics, suggests that the UK is a highly integrated economy. This led us to reject full fiscal autonomy for Scotland – in the sense of independence. Nor, for reasons of equity, were we persuaded of full fiscal autonomy with no shared obligations (Straw Man II), in the sense of Scotland only making a sovereign contribution for access to shared services without any equalization mechanisms.

The loss of any risk-sharing mechanism is a severe drawback. It would leave Scotland vulnerable to adverse economic shocks because macroeconomic stabilization would be harder to achieve without the automatic stabilizer of cyclically sensitive net transfers from Westminster. At present net transfers

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increase when Scottish-sourced revenues decline (as, for example, with a decline in oil taxes) relative to those in the UK as a whole. The full fiscal autonomy variants greatest disadvantage is that they give up on the matter of social equity within the UK.

But we have also argued for change. The UK stands out as the country with the most extreme degree of vertical imbalance ie the least devolution of powers over regional taxation. We think that the UK should increasingly join in the international learning process about the relative merits of decentralised fiscal arrangements. Our specific proposal involves the assignment of some tax revenues and devolution of other tax rates and/or taxes bases to Scotland. We mean by this that in future a considerable proportion of taxes levied on Scottish tax bases should be returned to the Scottish Executive.

The Scottish Executive budget, however, would continue to be supplemented by transfers from the Westminster budget, in line with best international practice.

We have drawn on the theory of fiscal federalism to argue for a smaller vertical imbalance between taxes retained in Scotland and public spending in Scotland. A closer matching of spending with taxes would better signal to beneficiaries the true costs of public spending in terms of taxes raised. It would create better incentives for politicians to provide public goods and services in quantities and at qualities that voters are actually willing to pay for.

Our fiscal federalist proposal has risks for Scotland because public finance revenues would not be as cushioned as they are under the present system. However, variability in revenues may be cushioned through a variety of public sector borrowing mechanisms. As to the status quo, that has risks too with
insufficient incentives to promote either static or dynamic economic efficiency.

That the amount of tax revenues coming to Scotland would in part depend on the health of the Scottish economy should create an incentive to politicians to be growth friendly in their public spending decisions. However, the beneficial effects of tax assignment that we emphasise depend on the response of Scottish politicians and electorate to the new incentive structures. If they think that they are getting a free lunch – freed from the bloc grant they can have an enhanced tax-and-spend regime, they will be sadly disillusioned. The benefits of greater efficiency in public spending and faster economic growth will come only if the Scottish polity comes to realize that their budget constraint has been toughened, not relaxed. If it acts on the latter assumption public spending will not become more efficient, the tax burden in Scotland will grow, Scottish economic growth will not improve, and Scottish public sector indebtedness will most probably grow – perhaps unsustainably so. Tax assignment and partial tax devolution will ultimately benefit the Scottish standard of living only if it is accepted that greater tax responsibility introduces a harder budget constraint into the public spending decisions.

What is proposed represents significant change in how Scotland is financed. It would involve much further study, progressive change and many steps along the way. In embarking on a fiscal federalist system, a needs assessment exercise might well have to be conducted in order to assess the size of the bloc grant to be provided by the centre. We also believe that any legislation creating tax assignment for Scotland should allow scope for further modification of the Scottish fiscal system – along the lines of the Spanish system where regional finances
are reviewed every five years.

Finally, any fiscal federalist proposal will clearly only work if the relevant institutional framework is in place, and what is especially important is that the Scottish polity respond positively to a new form of (hard) budget constraint, designed to ensure time consistent behaviour. Clearly, it is impossible to predict ex ante how the local polity will react to a changed fiscal environment. However, we do not regard this uncertainty as a sufficient argument against addressing the important vertical fiscal imbalance that currently exists within the UK.

To conclude we have considered the economic case for a fiscal federalism in Scotland. Our discussion, is not intended as the last word on this topic. Rather we have raised the key economic issues which are at the heart of any debate on an appropriate future fiscal federal system for Scotland.

We will have succeeded if we have redefined the terms of debate on this issue away from political rhetoric towards a focus on the real choices, the comparative experience of other nations, the economic evidence. As the rest of the Allander Series has demonstrated, there are no quick fixes to the challenges of improving growth, opportunity and governance. But the ambition should be to move towards a fiscal system at the UK and Scottish levels that best deliver the three key economic roles of government, namely, greater efficiency, equity and stability.
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GLOSSARY OF KEY TERMS

Allocative efficiency: a combination of efficiency in production and efficiency in consumption. ‘Efficiency in production’ means that goods are produced at least possible cost. ‘Efficiency in consumption’ means that consumers are able to obtain the goods that they want in the combinations they prefer. Technically, allocative efficiency is achieved when for any pairs of goods the ratio of marginal cost is equal to the marginal rate of substitution (or ratio of marginal utilities).

Assigned tax: taxes paid by and returned to the tax jurisdiction in which they were raised. Our usage differs from that of some other writers who define an assigned tax as being assigned to the jurisdiction of a SCG.

Barnett formula: “Put simply, the Barnett Formula sets percentages of changes in comparable expenditure in Great Britain. This is to say, it would be 85 for England, 10 percent of expenditure for Scotland and 5 percent of expenditure for Wales. This is exactly what the Barnett Formula is”. (Edmonds, 2001, page 9). These shares are based on population proportions in the Union as a whole. As public expenditure per head is greater in Scotland than in England, equal amounts per head of public spending growth over time will narrow the gap between per capita public spending between Scotland and the English regions.

Benefit taxes: taxes that match benefits received by taxpayers. For example, residents of a local school district paying the full cost of its school system. Thus, residents ‘pay for what they get’. See non-benefit taxes.
Bloc grant: an annual grant from Westminster to Edinburgh currently used to finance devolved expenditures.

Central government: the government of the UK based in Westminster.

CG: see central government.

Conditional grant: a grant from central government to sub-central government that is conditional on some action by the latter - very often to encourage sub-central government to spend money for a designated purpose, such as education. One purpose of conditional grants is to take account of spillover benefits from one tax jurisdiction to another. This is known as ‘internalizing an externality’. As the spillover is a benefit not paid for by the receiving region, the sending region will tend to under-invest in it. The conditional grant gets around this problem.

Devolved expenditure: expenditure classes devolved to Edinburgh under the Scotland Act (1998) - such as spending on Scottish health and education.

Devolved tax: A tax, such as income tax, over which sub-central government has some decision-making responsibility - such as setting the tax rate or the tax base.

Economies of scale occur when the average (or, per unit) cost of production falls with the size, or, scale, of operations.
Equity or distributive justice occurs when the distribution of goods between people in a society is thought to be ‘fair’ by the electorate.

Fiscal: of public spending and the taxes needed to finance such spending.

Fiscal equalization: see horizontal equity.

Fiscal federalism: in a strict legal sense fiscal federalism exists when a country’s constitution grants rights to SCG over public spending and taxes. These powers cannot be removed by CG without an amendment of the constitution. Examples of such federal systems include the USA, Canada and Germany. In this sense the UK is not a federalism system, rather it is a unitary state. However, the term ‘fiscal federalism’ is widely used in a looser sense to describe situations where SCG has powers over spending and/or taxing that derive from CG that is not constitutionally protected. In this sense, Scotland are already part of a ‘federal’ system but with rather limited fiscal powers, especially over taxation.

Hard budget constraint: where the financial constraint on spending is binding – a SCG has to live within its means without expecting relief from CG.

Horizontal balance occurs when per head public expenditure is similar between regions at similar per head tax burdens. See also horizontal imbalance.

Horizontal equity what is judged to be ‘fair’ in taxing and spending between regions. See also fiscal equalization.
Horizontal imbalance when per head regional tax burdens differ markedly for similar levels of per head public spending. Horizontal imbalance is reduced if some tax revenue raised in high income regions is transferred to a low income region. See also horizontal balance.

Local public goods and services: their benefits are enjoyed within a restricted geographic area, e.g. schools, hospitals, fire service.

Macroeconomic stabilization: see ‘stabilization function of government’.

Matching grant: see conditional grant.

Moral Hazard: Initially used in relation to the insurance industry. An individual takes out insurance and then acts differently once they are insured. For example, somebody with property insurance takes less care to secure their property.

Needs equalization: money transferred from central government to sub-central government on the basis of ‘need’ – usually to balance the per head supply of public goods at similar local tax burdens. Without needs equalization poorer regions would have a greater tax burden for the same supply of public goods.

Non-benefit taxes: taxes not necessarily related to benefits received from public spending in a region – such as taxes raised to redistribute income between high and low income households. See also benefit taxes.
Public choice theory: a branch of economics that views government as being run by self-interested agents. Thus, politicians and bureaucrats in acting in their own best interests do not necessarily act in the best interests of the electorate.

SC G: see sub-central government.

Soft budget constraint: when a SC G is aware that should it breach its spending or borrowing limits it can expect relief from CG.

Source based tax: a tax levied where an income stream is generated or at the point where spending on goods and services takes place.

Stabilization function of government: the use of the public finances to even out fluctuations in national production and employment. For example, in a recession increasing public spending and cutting taxes so as to stimulate the economy.

Sub-central government: a regional government, for example, the Scottish executive and parliament based in Edinburgh. See also central government and CG.

Tax assignment problem: determination of the ideal balance between taxes raised locally and total public expenditure in a region.
Time consistency: a commitment made today, because it is rational to make it today, that is still rational to execute when the time comes to do so. Thus, to constrain possible SCG over-spending, CG commits to a ‘no bailout’ clause. The commitment is time consistent if SCG later threatens default on its debts and it is still rational for CG to let it happen. If at this time of a threatened default it is not rational to let the default occur, the original commitment was not time consistent. Commitments that are known not to be time consistent are likely to be ineffective in governing behavior.

Unconditional grant: a grant from CG to a SCG that is not conditional on a pre-defined performance by the latter. See also conditional grant.

Vertical balance in the tax structure is the relationship between taxes raised in a region and a region’s public spending. High vertical imbalance means that taxes raised in a region cover only a small part of local public spending.

Vertical imbalance; see vertical balance.
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