Economic perspectives

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Life after Barnett: future options for fiscal devolution in the UK

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Introduction

The future of the fiscal devolution arrangements in the UK has been the subject of intense political debate over the last parliament and during the 2001 election campaign.

It is regrettable, though not entirely surprising, that much of the attention in the fiscal devolution debate has fallen on the extent to which devolved authorities like Scotland would be able to survive on their own in a system of complete fiscal autonomy.

The discussion on Scotland's deficit or surplus is a moot point. This is not only because there are widely varying estimates of the deficit, depending on assumptions about future North Sea tax revenues, but also because Scotland's hypothetical surplus or deficit is irrelevant unless it leaves the Union. Whilst some federal arrangements allow individual regional/state governments to borrow to finance fiscal deficits, this freedom is (in most cases) curtailed. It is almost impossible to envisage a situation in which devolution in the UK will evolve to a point where devolved regional assemblies or parliaments will have the ability to engage in deficit finance. Thus, as we shall discuss below, Scotland's putative fiscal deficit or surplus would simply affect the extent to which it could make a contribution towards any equalisation arrangement which might be put in place to allow the UK regions to support each other. We will not, therefore, discuss the issue of deficit finance in this paper.

The key policy issue that we address here is whether the UK can continue to live with its current system of fiscal devolution. There is a reasonably broad agreement that the current system to allocate government spending in the UK, the so-called 'Barnett formula', will come increasingly under fire in the coming years. The reason why it cannot provide a long-term basis for the UK's system of fiscal devolution is discussed below.

But pointing out the defects in the current system is easy. A more challenging task is finding an alternative. The UK could learn from other countries' experiences with systems of fiscal federalism/devolution. Indeed, our key conclusions are the following: first, a greater degree of fiscal autonomy would be desirable in the devolved authorities in the UK.

Second, if the devolved authorities are to be given additional powers to raise taxes, it is likely that personal income taxation is the most promising form of devolved taxation.

The 'Barnett Formula'

Currently, the spending budgets of Scotland, Wales and Northern Ireland are determined according to the so-called 'Barnett formula', a system devised in 1978, and named after the then Chief Secretary to the Treasury Joel (now Lord) Barnett MP.

Historically government spending per capita in Scotland has been higher than in England: in 1998-99, Scottish spending per head was 24 per cent higher than in England. Scotland's spending per head even exceeds that of less wealthy northern English regions. Over time, these disparities will disappear, thanks to the workings of the formula (the so-called 'Barnett squeeze') which will cause spending per head to converge to English levels. How quickly that happens depends on a number of factors, but in 15-16 years spending per capita in Scotland will be just 10% above English per capita levels, given current macroeconomic trends.

It should be stressed, however, that until recently the 'Barnett squeeze' has not operated as envisaged by the formula. In the late 1970s, per capita spending in Scotland was about 22% higher than in England, so the situation has not deteriorated. The reason for this is twofold: first, because the Barnett formula was not adjusted to take account of Scotland's population, which declined between 1976-88. However, the intention is that the formula will be adjusted to take account of population changes, so that the 'Barnett squeeze' should take effect from now onwards.

Another way in which the Barnett allocation can be bypassed is if the UK government makes decisions which lead to additional costs for the Scottish parliament (e.g. decisions on NHS pay which apply throughout the UK), or the UK government makes a general adjustment to public expenditure programmes which it wishes to see applied uniformly across the UK. There have been a number of occasions when the formula has been bypassed. If these exceptions, which vary from year to year, occur with a certain frequency, then the 'squeeze' would be delayed.

However, regardless of whether the squeeze will operate uniformly over the next decade to bring Scottish spending closer in line with English spending levels, this system of fiscal devolution fails on two counts. First, there is no inherent logic behind the Barnett formula, which bears no explicit relation to the spending needs of the devolved authorities. Second, the current arrangements involve little fiscal autonomy, and elected regional politicians are not properly accountable for their spending decisions.

The issue of what level of spending in Scotland would appropriately reflect 'needs' is discussed below. If the 'Barnett squeeze' is allowed to operate as envisaged, the current system of spending allocation may come under attack from within Scotland. There is no doubt that as the 'squeeze' begins to bite it will become more difficult for the Scottish Parliament to sustain its existing spending commitments. English politicians will also continue to attack it, especially if devolution is extended to the English regions. If the Labour government maintains its promise of consultation on English regional devolution during its second term of office, the issue of relative spending levels in the poorer English regions compared to Scotland and Wales will be under the spotlight.

The reason why a system of fiscal devolution should involve at least some element of fiscal autonomy is that it ensures greater accountability. Fiscal autonomy brings together the authority to spend with the responsibility of taxation, and this helps to promote fiscal responsibility amongst local politicians and electorates. To put this another way, allowing devolved authorities the power to spend without the responsibility to tax involves separating the benefits from increased spending from the costs of raising the required revenue, which is undesirable. The justification for this statement can be found in public finance theory and can be stated as follows. If local fiscal expenditures are financed through lump-sum grants from central government, one would expect a benevolent local government to allocate spending in such a way as to maximise social welfare subject to the constraint that the entire central government grant is spent. However, each local government does not have any incentive to consider the opportunity cost of raising additional taxation (i.e. lower private expenditures). Hence, in some devolved authorities public goods might be over-provided for (the marginal benefit of the public goods provided is less than the marginal benefit of a hypothetical tax rebate), and in others there might be under-provision. (Unless by some miracle of central planning, central government allocations fully match the opportunity costs of taxation with the marginal benefits of additional public spending for each local government). This is the sense in which fiscal devolution without fiscal autonomy makes local politicians less accountable.

Fiscal autonomy – a comparison with other countries

As shown in Table 1, the UK has one of the least decentralised tax systems in the developed world. This is measured by the proportion of sub-national spending financed through taxes raised locally. Unlike other countries, the devolved authorities in the UK rely almost exclusively on hand-outs (block grants) from central government.

Admittedly the figures shown exaggerate the UK's position because a number of countries use tax-sharing systems. Under tax-sharing arrangements central government remains in charge of the collection of most of the main taxes (personal income tax, corporation tax, VAT), but regional governments are assigned some proportion of the revenues collected in their own territory. In countries where these arrangements are prevalent (e.g. Germany, Spain, Norway) regional/state governments do not have the ability to alter tax rates or their tax base. Whilst it could be argued that tax-sharing does little to ensure greater accountability compared to direct government hand-outs, it shows clearly how much each region is raising in tax. The cross-subsidisation between regions therefore becomes much more transparent. It does imply that any discussion of expenditure decisions at a regional/state level is accompanied by a discussion of how regional budgets are determined.

To go beyond tax-sharing towards substantial fiscal autonomy (as in the USA, Canada, Australia) state/regional governments have to be allowed to set their own rates of tax. This is not without problems. It would be undesirable, given the high mobility of businesses, to give UK regions the power to alter corporation taxes. Most small countries avoid regional differentials in corporate taxes because they can lead to distortions in the location decisions by businesses, and tax avoidance through transfer pricing arrangements. There are also major administrative costs in varying multi-stage taxes such as VAT at a regional level. E-commerce is also progressively eroding the ability to vary value added or sales taxes at a regional level, as many US states are finding out to their cost.

If the UK wants to extend the tax-raising power of the devolved authorities, it should do so through regional personal income taxation. In Scotland this would simply extend the scope which Holyrood already has to vary the rate of income tax. Local income taxes are used in small countries (Denmark, Sweden, Switzerland) as well as large federations, and are relatively simple to implement.

Devolving personal income taxation – a recipe for over-taxation?

The issue of whether devolved regional government can lead to an excessive burden of taxation is an important issue. It is also one that featured prominently in the Scottish referendum campaign which led to devolution, despite the limited range of tax-varying powers planned for Holyrood.

A recent comparison of taxation in federal and non-federal states has shown that, in general, there is no evidence that income taxation is higher in federal states where both national and sub-national (state/regional) government co-occupy the same tax base than in non-federal states. But perhaps this is not surprising, given that the countries concerned include the USA and Switzerland.

From the viewpoint of economic theory, regional governments will be limited in the extent to which they can increase personal income taxation because of the mobility of the tax base. Tax competition between regions in federations has always ensured that no single regional government can steadily increase the burden of taxation. In the Scottish context we have already seen how some political parties have been keen to commit not to use the devolved tax powers in the foreseeable future. Whilst some tax differentials are bound to arise in a fully devolved UK system with regional taxes, these differentials are likely to be small because of tax competition.

Paradoxically, a more serious problem for the regional tax authorities is an increase in national taxation. If there are increases in national income taxes, regional governments face the strategic problem of whether to hold their additional taxes at current levels. If they are concerned that this will take tax rates to a point where outward migration rates are increased, the regional government's ability to determine its own tax revenue yield will be affected. These strategic interactions between national and sub-national governments co-occupying the same tax base are known as vertical tax externalities, and limit the effective degree of fiscal autonomy granted to the regions.

Another important issue is whether regions should have any say in determining the progressivity of the taxation system, i.e. whether they should be able to have some say not only in setting the basic rate of income tax, but the whole structure of personal income tax rates. Generally this latitude is allowed to sub-national governments in federations (e.g. the USA, Switzerland). Other countries which have adopted local income taxation often impose strict limits on the actions of the sub-national governments. For instance, in Denmark sub-national authorities can only impose a flat-rate tax which is additional to national marginal tax rates, and avoids intense tax competition between geographically small units. These flat-rate piggy-back income taxes are set in such a way as to achieve a balanced budget. Another issue which must be confronted is the administrative cost of allowing very different regional personal income tax systems to run side-by-side: this tends to reduce the economies of scale of having a national tax assessment and collection system. Having said this, in Switzerland, very different Cantonal tax system do seem to coexist.

Should tax-sharing include natural resource (oil and gas) taxation?

A key issue in the UK debate on devolution is what should happen to taxes on natural resources. Very few countries devolve taxation on natural resources. Those who do are generally federations (USA, Canada), and they have done so for historical reasons, as royalties and levies were traditionally under the control of the states and provinces. In the 1970s, natural resource taxation has become a real issue in these countries, as resource-rich provinces and states began to witness a massive rise in their fiscal capacity.

However, devolving natural resource taxes also creates problems. In Canada, the province of Alberta in Canada built up a 'heritage saving trust' with oil revenues, but its relations with other provinces in Canada were soured as it placed Canada's fiscal equalisation system under pressure. In the USA, relations between Louisiana and energy-using states were soured by the imposition by Louisiana of a first-use tax together with an exemption system for local Louisiana producers.

Taxation of oil has long been central to the debate on Scottish devolution and independence. Would it make sense for the UK to follow the example of federal states and devolve natural resource taxation?

The answer is probably no, for three reasons. The first is that the completion of the devolution settlement in the UK will possibly need to include some element of fiscal equalisation for the regions. Devolving tax revenues will, as in the case of Canada, impose strains on the fiscal equalisation system. Specifically, oil tax revenues fluctuate over time, and are sensitive to the current and expected future oil price. Large fluctuations in the fiscal capacity of the UK regions will not be easy to handle in a fiscal equalisation system which is designed to smooth out trends in relative fiscal capacity. Second, in the case of the UK the distribution of natural resources is very uneven, more than in the USA. Again this argues against the assignment of natural resource taxes to sub-national levels. Devolving petroleum revenues will require a considerable interregional adjustment through a fiscal equalisation system which will distort local taxation and expenditure decisions.

The third reason is that UK oil and gas tax revenues are likely to shrink considerably over time, and devolution at this stage will complicate the tax assignment and equalisation arrangements. The UK's oil and gas taxation comes from four sources: petroleum revenue tax, corporation tax, royalties, and licence fees. Of these, petroleum revenue tax has traditionally been the biggest source of revenue from oil and gas. The tax yield on upstream activities has varied considerably in the 1990s, and has recently risen again, although a much smaller proportion now derives from petroleum revenue tax (PRT), royalties and licences (respectively about £1 billion and £250 million in 1999-00). Corporation tax on upstream activities now takes up a much bigger share (about £1.3 billion in 1999-00). On the assumption that by 'devolving oil taxes' we imply only PRT and royalties/fees, this would only include a sum destined to decline through time. PRT revenues have varied markedly in the 1990s, and are destined to fall further. One major problem is that, although the oil industry predicts continued production for another decade at current levels, there will eventually be considerable decommissioning costs. These are estimated at about £8.5 billion and most of these expenditures will be allowable for tax purposes: even though current PRT revenue flows seem healthy, they pale into insignificance when these decommissioning costs are taken into account. Kemp and Stephen (2001) estimate, under a variety of scenarios for the oil price, that from 2018-2025 aggregate PRT relief will exceed PRT payable and in some years reaches £100 million per year even at a price of $20-28 per barrel.

For all these reasons, it seems sensible not to devolve natural resource taxation in the UK, and particularly oil and gas taxation.

Fiscal equalisation

If the UK adopts regional fiscal autonomy or tax-sharing it will have to confront the problem of redistributing revenues between richer and poorer regions. Such schemes have a long tradition in some countries (e.g. Germany, Australia, Canada, Switzerland), and have recently been introduced in others to with increasing devolution (e.g. Italy). Those countries that do not have such systems of 'interregional solidarity' use central government grants (based on social need) to perform this task. Imagine a future system of devolved government in the UK which is extended to the English regions. There will be wide disparities in the tax generating capacities of Scotland, Wales, and the North of England compared to the South of England. Some central grant allocation based on social criteria or a scheme of tax revenue redistribution between poorer and richer regions will be needed.

Measuring need on a regional basis

If central government grants remain a major part of UK regional budgets (for instance as part of a regional equalisation system), these should be based on specific criteria. Most other countries have moved away from historic allocations (such as Barnett) towards formula-based grants which explicitly recognise local needs. Japan, Spain and the Nordic Countries all base their regional spending allocations on measurable criteria which reflect geographic disadvantage (population dispersion, degree of urbanisation, climate), social inequality (relative poverty, housing quality), and the demand for public services such as health and education (demographic characteristics).

In Japan, for instance, 24 different types of public services are defined, unit costs of provision are calculated, and modification coefficients are applied to take account of the needs of each locality. The modification coefficient, which allocates more to needy regions, will include factors such as density of population, climate, rapid population growth, and financial capacity. In Spain, a revenue-sharing system has been in operation since 1996. This was designed to allow regional governments to finance a level of public services similar to that which applied prior to the new Spanish devolution arrangements. In deciding the shares, weights are given to indicators such as population, relative poverty, insularity, population dispersion, and geographical size. In Denmark, social criteria such as single parenthood, quality of housing, unemployment, and ageing population are used to determine allocations.

If future UK governments are serious about pursuing a social justice agenda it is essential to match spending allocations to measured regional needs. Clearly one should not embark on producing an allocation system which proliferates the number of indicators, and results in a formula that is so complex as to be poorly understood. Other countries have not been immune from the criticism that, by using a myriad of criteria to measure spending needs, the allocation of government spending is obscured. However, it is difficult to counter the argument that some objectivity in measuring regional needs would be preferable to none. The UK, as far as allocating its grants to the devolved assemblies is concerned, is out on a limb.

Conclusion

The current devolution arrangements in the UK have a limited shelf life. Some politicians and pundits have recently commented that these discussions are 'purely academic' or 'ahead of their time'. This is remarkably shortsighted. Until recently, the UK distinguished itself from other countries by its emphasis on centralisation and tight control on local government. Since 1992 we have finally seen some important changes, with greater trust and responsibility being placed in devolved government and local democracy. But the UK devolution project still has serious flaws. Academics have a duty to point these out and to propose possible solutions. These issues will soon be centre-stage in the political arena, and it would be best not to dismiss them.

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Endnotes

1 For a detailed analysis of the history of the Barnett formula, see Twigger (1998), Bell *et al.* (1996). The Barnett formula was revised in 1992 by the then Chief Secretary of the Treasury Michael Portillo. He modified the formula so that Scotland received a smaller share (10.66%) of changes in programmes other than Law and Order, compared to 11.76% under the original Barnett formula. This was to reflect Scotland's falling share of the UK population. The share of changes in expenditure is sometimes referred to as the Barnett-Portillo factor.

2 Assuming a rigorous application of the formula, and a growth in UK nominal government spending of about 5%. A lower rate of nominal public spending growth will delay the adjustment (see Bell *et al.*, 1996, Bell, 2001). Another complication is the impact of different rates of population growth in Scotland (and Wales) relative to England: Cuthbert (2001) shows that a more rapid growth rate in population in England can offset the effects of the squeeze, if combined with a low rate of growth in public spending (given a constant Barnett-Portillo factor).

3 This has led some commentators (e.g. Midwinter, 2000) to support the continuance of the Barnett formula as convergence has been negligible in the 1990s. However, as pointed out by Cuthbert and Cuthbert (2001), the offset in convergence in the 1990s is probably attributable to once-and-for-all effects such as faster relative population growth in England and increased spending outside the formula.

4 Indeed, matters are made worse in the UK by the complexity of the Barnett formula, and the fact that some UK spending decisions by-pass it. This makes it very difficult for the average voter to discriminate between different policy platforms in Scotland because each politician has an incentive to obfuscate the issue of affordability in promoting spending decisions. The political economy of devolved government may also be made more complex by the fact that if different parties hold power in Westminster and in the devolved authorities the incentives to bypass the Barnett formula will be less than if the same political party holds power in both.

5 See Keen (1997).

6 Although some degree of horizontal equalisation of tax capacity is undertaken - see below.
7 For an outline of the *Lousiana v Maryland* case which led to a ruling by the US Supreme Court, see McClure and Mieszkowski (1983).
8 See Ter-Minassian (1997).
9 See the National Audit Office (2000) report on PRT.
10 See National Audit Office (2000).
11 If decommissioning is incurred at the end of a field's life, it can be used to offset profits made earlier in time in the field. Where it exceeds these profits it can be used to offset profits made in other fields.
12 In the UK the only needs assessment of England and the three devolved authorities was conducted in 1979 (see Bell *et al*, 1996). The Treasury study concluded that, in order to provide the same level of service as in England, spending per capita in Scotland would need to be 16% higher than in England. In Wales and Northern Ireland the assessment was that spending per capita would need to be 9% and 31% higher than in England.

Table1: fiscal devolution - a comparison of various OECD countries

	Degree of fiscal Autonomy[1]	*Tax Sharing*	*Main types of taxes raised at local or regional/state level*	*Central Government grants to devolved authorities based on special regional needs*	*Redistribution between poorer and richer regions to help equalise tax capacity*
USA	82.0%	No	Most States rely on own personal income, corporate income and sales taxes.	Yes	No
Canada	46.0%	Partial	Provinces relay mainly on personal income, corporate income, retail sales and natural resource taxes.	No	Yes
Australia	61.0%	No	States rely mainly on taxes on goods and services, payroll, property and public enterprise surpluses.	No	Yes
Japan	42.9%	Yes	Local taxes mainly on inhabitants, enterprises and property. Local/regionalauthorities have little power to vary rates.	Yes	No
Germany	56.1%	Yes	States mainly rely on tax-sharing with Federal government.	Yes	Yes
Italy	51.9%	Yes	Wide range of regional/local taxes including: health, petrol, vehicle registration, business value added, personal income surcharge, and property taxes.	Yes	Partial
Spain	61.4%	Yes	Regions depend mainly on tax sharing and property and motor taxes. Basque Country and Navarra enjoy greater autonomy.	Yes	No
Switzerland	73.0%	Partial	Cantons levy taxes on personal income, and motor vehicles.	Yes	Partial
Denmark	72.2%	Partial	Mainly local income taxation using flat rate tax.	Yes	Yes
Norway	52.2%	Yes	Mainly tax sharing.	Yes	No
UK	13.1%	No	Property taxes at local level; Scotland has limited powers to vary basic rate of income tax.	No	No

Notes:
Reliance by devolved authorities (regional and local) on local taxation revenue plus tax sharing relative to central government grants for expenditure plans (expressed as percentage of spending financed out of regional and local taxes).
Data refers to various years (1993-98). Source of data: OECD, IMF, various publications.