Key Points

- If the Barnett formula is rigorously applied to determine the budget of the Welsh Assembly Government, this will ultimately adversely affect the economy of Wales by limiting the growth in aggregate demand.
- This effect is reinforced now that population weights determining rises in expenditure in Wales (and Scotland and Northern Ireland) are regularly up-dated.
- There is some controversy in Wales about whether some form of needs-assessment exercise would favour Wales relative to its current position. What is clear is that the outcome of a rigorous, long term application of the Barnett formula would be a share of UK public expenditures in Wales (and Scotland and Northern Ireland) that was almost certainly below the level that would be dictated by any conventional understanding of ‘needs’.
- The impact of the tax-varying power favoured by the Richard Commission is ambiguous, with the direction of effects dependent on the reaction of the current labour force and potential migrants.
- If workers insist on full compensation for loss of income to tax through a rise in gross wages a tax rise would lead to an economic contraction. However, if workers value the additional public services financed by the tax rise as equal to their loss of disposable income, this effect can be avoided. Much in other words would depend on how the proceeds of the tax rise were spent.

In Chapter 10 of its 2004 Report, the Richard Commission provides an analysis of The Financing of Devolved Government. The Report first considers the ‘present funding arrangements’ and then proceeds to discuss ‘tax-varying powers’. The discussion, as far as it goes, is sensible and informative. However, it is important to recognize that the Richard Commission’s report is restrictive in scope. In particular, the discussion of the advantages and disadvantages of both present arrangements and tax-varying powers is
conducted without any analysis of the likely wider consequences for the economy of Wales of these arrangements, or alternatives to them.

The purpose of the present briefing is to begin to fill this gap in our knowledge. We report key results of a systematic exploration of the current funding arrangements and tax-varying powers using a complex model of the Welsh economy.

**Present funding arrangements**

The Richard Commission reflects the traditional concerns of the literature on the Barnett formula, which anticipate falling expenditures *per capita* in the devolved regions. One key feature of the formula is that Wales’s initial ‘beneficial’ position, whereby its expenditure share exceeds its population share in the base year (in the late 1970s), is preserved in the form of a *fixed amount of nominal* expenditure. However, the real value of this expenditure and its importance relative to nominal government expenditure in England falls with growth in the latter. The Barnett formula implies that Wales’s share of expenditure will fall through time, towards its population share, as nominal expenditure in England increases. This is what underlies claims about a “Barnett Squeeze”.

But the traditional literature on the Barnett formula ignores the implications of changes in government expenditures for regional demand, activity and populations. The analysis of the Richard Commission shares this limitation. Yet government expenditure is an important component of regional demand that has significant impacts on economic activity and employment, which in turn stimulate migration and population change. Under the present system in which population weights in the Barnett formula are regularly up-dated, any downward pressure on population through contracting demand is reinforced as government expenditures are further reduced as a consequence.

In Figure 1 we report the ultimate impact of strict adherence to the Barnett formula on the Welsh economy. If population weights are not up-dated (the case until 1997), rigorous adherence to the Barnett formula would eventually result in a contraction in GDP and population in Wales of 2.9% and just over 3% respectively, assuming labour is mobile. However, as we would expect, if the population weights used in the Barnett formula are up-dated (in this case downwards), Wales loses out further in terms of government expenditure. This induces additional contraction, with GDP ultimately falling by 3.9% and population by 4.1%.
While the effects are significant, they are less than in the Scottish case, where population contraction is estimated to range as high as 5%. This mainly reflects the fact that Wales currently has lower expenditure per capita than Scotland, and is closer to equality with English per capita expenditures. However, a given change in government expenditures in Wales is also likely to have a lesser impact because the Welsh economy is more open, with a higher propensity to import and higher price elasticities of demand for its traded goods.

These results are sensitive to a number of assumptions, including the nature of the collective bargaining system and the degree of labour mobility. Under some circumstances the absence of labour mobility would make big difference, significantly reducing the scale of impact on GDP.

There is general controversy over how important the Barnett formula actually is in governing the distribution of devolved expenditures among the regional governments of the UK. However, in Wales the dispute surrounding the treatment of EU Objective 1 funding, and the resulting ‘Barnett plus’ arrangement has been interpreted by some as indicating the continuing ability of the devolved authorities to challenge the formula and effectively bypass it. It is not at all clear yet, though, that the very special circumstances that led to this arrangement indicate a more general flexibility. Furthermore, while bypass is always possible, if it occurs on an ad hoc, transitory basis it will merely influence the speed of adjustment to any ‘Barnett equilibrium’ (that it the end of the process of ‘Barnett squeeze, when Welsh per capita public expenditures converge on the English level), and not the fundamental nature of the equilibrium.
Of course, there is no implication that Barnett equilibria are desirable. Devolved expenditures in such circumstances are allocated solely on the basis of regional populations. While the size of regional populations is undoubtedly one indicator of ‘needs’, it is an imperfect one since it takes no account of characteristics that lead to different needs across regions (e.g. age composition, degree of poverty) or to different costs of providing public services (e.g. geographic dispersion of the population). The only publicly available official ‘needs assessment’ exercise in the UK is now rather dated.

However, some have argued that Wales would inevitably benefit from an up-date since, on many indicators at least, its relative position in the UK economy (for example, in terms of GDP per capita) has declined. We are not in a position to assess the validity of this view, but what is clear is that an equilibrium for the economy of Wales (and of all the peripheral economies of the UK) based on an up-dated needs-assessment would almost certainly be better than a Barnett equilibrium.

A number of factors should be kept in mind when interpreting our results. First, they are likely to take many years to be established, even in periods of reasonably rapid nominal expenditure growth. Secondly, our results measure change relative to the status quo, which would require equi-proportionate allocations of expenditure per capita across all the regions of the UK, and therefore seems unlikely. It may be that other comparators could generate equilibria worse than Barnett equilibria. However, in practice, this seems unlikely because other mechanisms are likely to attribute some weight to ‘needs’ and it is unlikely that these would be less in the case of Wales than in England. Finally, if mechanisms for distributing regional public expenditures have an important macroeconomic impact on the regional economies of the UK, these effects should be included in any overall evaluation process.

**Tax-varying powers**

The Richard Commission considers the case for and against the granting of tax-varying powers and concludes that ‘if a legislative Assembly is constituted it is desirable, though not essential, to confer tax varying powers’ and that ‘if a tax-varying power is to be granted the most practicable method appears to be the Scottish variable rate’.

On the case against the tax-varying power the Commission cites: the pragmatic point that it would probably not be used; the impact on overall financial accountability; the limited potential to offer much of a buffer against any tightening of the UK budget; the uncertain nature of the revenue stream given its sensitivity to the structure of the tax system (over which the Assembly would have no control); the possibility of a negative impact on Welsh economic activity. The key arguments in favour of a tax-varying power are considered to be: the Assembly’s ability to raise some additional revenue, with accountability to the electorate; the fact that taxes could be lowered as well as raised; the power to finance additional projects ‘of importance to Wales’. While some of these arguments acknowledge the possible importance of the wider effects of using the tax-varying power, these are not explored.
What then would be the likely impact of the introduction of the tax-varying power on the Welsh economy? Our starting point is the UK government estimates that the revenue raised from a 1p increment to the standard rate of income tax in Wales in 2003/4 would be £120m. A 3p variation would generate a change in revenues of £360m. This was 3.5% of the National Assembly budget in 2003/4.

The First Minister’s reference to establishing ‘clear red water’ between Cardiff Bay and Westminster, and the fact that the power to vary fees and charges has, so far, been employed to reduce them, thereby putting further pressure on the Assembly budget, suggest that a tax rise is more likely than a fall. We use the estimate of a £360m increase in revenues resulting from the 3p rise in the basic rate of income tax to calibrate the scale of the tax rise in our model of Wales.¹

We impose this tax increase on the model, with the constraint that all increments to tax revenues are then spent (with a composition identical to government expenditure as a whole). This constitutes a balanced-budget fiscal expansion. It is referred to as a fiscal expansion because the expectation is that the change will have a net expansionary demand effect. Of course, since disposable incomes fall, we would also expect consumption expenditures to fall. However, because of, for example, the lower import content of government expenditure, the fall in consumption is likely to be more than offset by the rise in government expenditure, so that, net, there is a stimulus to aggregate demand.

However, there are potentially important countervailing influences operating on the supply-side of a regional economy such as Wales. Since workers take home pay cuts relative to elsewhere in the UK, Wales may become a less attractive place to work, and there may be out-migration. Furthermore, workers may pressure representatives to push for a compensating rise in the pre-tax wage in an attempt to restore the original real wage (‘tax shifting’). Any such supply-side effects will tend to push up wages in Wales relative to elsewhere and so have an adverse impact on competitiveness. The overall impact on output, employment and the population will therefore depend on the relative strengths of beneficial demand and adverse supply effects.

The key to the outcome depends on the strength of the adverse supply effects: if these can be moderated or countered, then the probability of an overall stimulus to the Welsh economy would be maximised. The results in Figure 2 relate to two benchmark cases. In one case we assume that workers/migrants force full compensation for their lower take home pay through a compensating increase in the gross wage. In this case the adverse supply effects predominate and the balanced-budget ‘fiscal expansion’ ultimately results in a contraction in regional GDP of 1.96% and loss of population of just over 2%.

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¹ We deflate the estimates and adjust for the costs of implementing and administering the tax, on the basis that these account for a similar percentage of gross revenues as in Scotland (about 1.1%).
In the second case, we assume that the tax hike has no impact at all on nominal wages. This could arise if all workers in Wales were tied into a national wage bargaining system with no flexibility, but this is clearly not the case. Alternatively, even if there is regional wage bargaining, this outcome would result if workers as potential migrants and wage bargainers, judged themselves to be as well off after the imposition of the tax as before, and did not seek to shift the tax onto employers. This would require them to value the additional public services as equal to their loss of disposable income, and to moderate their wage claims in accordance with this valuation.

In this case, neither nominal wages nor prices are affected. Of course, the real take home wage falls by the full amount of the tax, but workers feel compensated by the higher public expenditures. Since there is no adverse supply effect in this case, the demand effect predominates and there is an expansion of activity, with GDP and population rising, by 0.5% and 0.6% respectively. This pattern of results is very similar to that we found for Scotland, though the percentage changes are slightly smaller in the Welsh case (despite a slightly bigger percentage tax change), reflecting the greater openness of the Welsh economy.

We have no way of knowing with any certainty which of these responses is most likely, since we do not have direct experience of such matters in the UK. However, we can identify factors that increase the likelihood of particular outcomes. Clearly the use of the tax revenues may be critical here; they have to be spent in ways that are widely and highly valued in Wales to maximise the probability a positive economic impact. At national level there is scepticism about such ‘social wage’ considerations. However, in
Wales there may appear to be a rather greater prospect of such an impact given its apparently more communitarian and egalitarian values. However, scepticism has also been expressed about the true strength of such values. Furthermore, the declining importance of national bargaining and of union membership serve perhaps to reinforce scepticism regarding the likely absence of induced wage effects following the use of the tax-varying power.

Assumptions about labour mobility again prove to be important, with both negative and positive effects being substantially reduced in the absence of mobility.

**Conclusions**

We conclude with two observations on the limitations of our present analysis. First, we have focused exclusively on the financing of devolved government in Wales. Of course, there are other key issues in any overall assessment of the economic consequences of devolution for the Welsh economy, not least the impact on economic development. Secondly, our analysis in this paper abstracts from the spillover and feedback effects that no doubt in fact characterise the interregional economy of the UK. We intend to address these issues in future research.