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**THE ECONOMICS OF DEVOLUTION/DECENTRALISATION IN THE  
UK: SOME QUESTIONS AND ANSWERS**

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# **The Economics of Devolution/ Decentralisation in the UK: Some Questions and Answers\***

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## 1. Introduction and background

In this paper we provide a non-technical account of recent research relevant to the economics of devolution/ decentralisation in the UK.<sup>1</sup> We proceed by exploring a series of questions and answers intended to highlight the implications of this recent research for the conduct of regional and national policy. We organise the questions and answers into four main sections dealing with: the nature of devolution/decentralisation in the UK; government expenditure; taxation and economic development issues. While our focus is on the UK, the Scottish case figures rather prominently for two reasons. First, and very pragmatically, Scotland has been the initial focus of much of our own research. Second, and more compelling, Scotland effectively serves as a natural “laboratory” for the study of devolution in the UK,<sup>2</sup> given the asymmetrical distribution of powers in favour of the Scottish Parliament, and the continuing lively debate on greater fiscal autonomy and independence there. However, where appropriate we refer to other European and North American experience.<sup>3</sup>

## 2. The nature of decentralisation in the UK

*Does the type of decentralisation matter for the conduct and evaluation of regional policies in the UK?*

Many authors (e.g. Klugman (1994)), have argued that it is useful to distinguish among alternative forms of decentralisation: de-concentration, the spatial transfer of some administrative function that nonetheless remains within central government; delegation, the assignment of some specific decision-making authority to a body outwith central government, and devolution, the transfer of responsibility for governing in a wider sense. In the UK context broadly defined (as opposed to the UK *per se*), we have examples of virtually the entire spectrum, but importantly they often apply asymmetrically across different regions. At one end of the spectrum we have the Channel Island economies operating effectively as independent regional economies with full fiscal autonomy, through the devolution of the Scottish Parliament, characterised by limited autonomy, the Welsh and Northern Ireland Assemblies and the delegated powers of the English RDAs to the de-concentration associated with civil service relocation initiatives. Both in principle and in practice, of course, there in fact exists a continuum of degrees of decentralisation, with “pure” forms being the exception rather than the rule. Nonetheless, the categorisation proves useful for analysis. Throughout we simplify the exposition by considering a variety of subsidiary questions.

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<sup>1</sup> While this economic focus limits the scope of discussion, it is a crucially important aspect of decentralisation and it does appear to be a major part of the motivation for this process in the UK, at least for the English regions. (See e.g. Morgan (2002).)

<sup>2</sup> See, for example, Jeffery (2002) for a discussion of the laboratories metaphor in the context of fiscal decentralisation.

<sup>3</sup> The literature on the formation of a European Monetary Union is of particular interest. The classic contributions are Mundell (1961) and McKinnon (1963). De Grauwe (2003) provides a recent review. The current controversies surrounding the growth and stabilisation pact relate to the debate on fiscal autonomy.

*What issues does simple de-concentration raise for UK regional policy?* The potential for cost savings is undoubtedly an important part of the motivation of the various civil service relocation policies that have been pursued in the UK as is the potential gain from local delivery of some services. The most recent manifestation is the Lyons review (2003), which appears to challenge the view of an earlier perspective (Hardman (1973)) that the economics of relocation is a “zero sum game”. In fact, as we shall see, analysts’ underlying vision of the UK interregional economy has a major influence on their view of the likely impact of any regionally differentiated policy or other disturbance. The Lyons approach appears distinctive in terms of the voluntary nature of relocation, and the pressure to keep the appropriate location of government activity under continual review.

*What issues does delegation raise for UK regional policy?* Delegation can be motivated through diseconomies of scale in government or by asymmetric information, with regional agencies having better information than central governments about their own localities. (Hayek, 1945) Moral hazard problems arise in these principal-agent arrangements where government (the principal) can only imperfectly monitor regional agencies efforts. These issues have been explored in a US institutional context (e.g. Volden (2002) for a recent example), while Learmonth (2003) analyses them specifically in the context of the RDAs in the UK. Moral hazard problems can be overcome, in some circumstances, through appropriate target-setting that may ensure “first best” outcomes.

*What issues does devolution raise for UK regional policy?* Here the issue does not correspond directly to a principal-agent problem, because there is a far greater degree of autonomy in this case and the devolved authority’s preferences are of paramount importance (over the range of devolved issues). However, what this does imply is that there is some variation in preferences, indeed such differences are a major part of the motivation for devolution. In principle this is very important for policy evaluation, because the goals of each devolved agency may – and indeed are likely to – differ. For example, it may be that the Scottish Parliament would attach greater weight to environmental relative to economic issues than Westminster, in which context observations of lower growth could in principle reflect a successful sustainable development strategy. While all of this could be part of “making the most of each regions potential” (DTI *et al* (2003)), the current emphasis given to productivity (GDP/ head) would be an inappropriate indicator and, could, at worst, entirely miss the point. We are not clear that current regional policy has fully absorbed the far-reaching implications of devolution for the appropriate evaluation of regional economic policies. While under delegation the UK government sets the contract and policy should be evaluated on its own criteria, under devolution Westminster has much less say (in the limit none at all) in resource-use and goals. Inter-jurisdictional spillovers complicate analysis and evaluation in both cases, however (Section 5).

***Is the UK system of decentralised/ devolved government compatible with the economic theory of fiscal federalism?***

This is a natural question to pose given that the theory of fiscal federalism deals with the issue of the most efficient allocation of responsibilities among different levels of

government, and the promise of such efficiency gains is presumably at least part of the motivation for devolution/ delegation in the UK case.<sup>4</sup>

*Is the nature of devolution in Scotland compatible with fiscal federalism?* The fact that defence, foreign affairs, the tax-benefit system and the conduct of UK monetary and fiscal policies are all powers that are reserved to Westminster while expenditures on health and education, for example, are devolved, as is responsibility for regional economic development, appears broadly in line with the lessons of this literature.<sup>5</sup> However, the modest, but as yet unused, tax-varying power of the Scottish Parliament and the fact that most of its revenues arise in the form of a block grant appears to be at odds with the literature's prescriptions on efficiency. The present arrangements no doubt reflect in part the equity considerations that inhibit potential efficiency gains.

*What about the UK as a whole?* The main problem here is that the degree of asymmetry across regions and the resultant complexity of the system makes any overall assessment extraordinarily difficult. However, to the extent that these asymmetries genuinely reflect different local preferences, there is a potential efficiency gain. Nevertheless, the resultant complex interrelationships among asymmetrically devolved/delegated agencies may create new forms of inefficiencies through the presence of spillover effects, for example (Section 5). The seemingly piecemeal approach to decentralisation in the UK renders it virtually inconceivable that the resultant system could be "optimal".

*Is the move to greater devolution in the UK likely to be beneficial in its impact?* The traditional literature emphasises the potential for efficiency gains, though with reservations concerning equity. In fact, the core theory itself recognises the limitations to devolution and, effectively, implies an optimal degree (or degrees) of decentralisation (which would preclude, for example, regional provision of national public goods or conduct of macroeconomic policies). However, scepticism is not confined to the presence of non-linear responses to further devolution nor to concerns about the realisation of potential gains in practice since, for example, inter-jurisdictional spillovers, soft budget constraints and economies of scale and scope in public goods provision are all sources of potentially significant costs of decentralisation.<sup>6</sup>

A number of the themes introduced here are developed further below. To simplify the exposition Sections 3 and 4 concentrate mainly on "single-region" analyses, while

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<sup>4</sup> See e.g. Oates (1999) for a review and Darby et al (2003a,b) for applications to the European context. See Peacock (1973), Hughes (1987), Blow *et al* (1996) and Smith (1996) for relevant UK analyses.

<sup>5</sup> These include that national public goods should be provided nationally and that the external effects of local macroeconomic and distributional policies imply that these responsibilities are best reserved. However, compatibility of expenditure choices on local public goods with local preferences is best ensured by appropriate devolution. Tiebout (1956), Musgrave (1959) and Oates (1972) are the classic accounts and Oates (1999) provides a survey.

<sup>6</sup> A classic statement in terms of a formal economic model can be found in Gordon (1983), but see also Bolton and Roland (1997), Prud'homme (1995), Donahue (1997a,b), Tanzi (1995) and Rodden (2002). None of these, however, explicitly tackles the additional problems that arise in the presence of substantial asymmetries in decentralisation.

Section 5 is presented entirely in an interregional context. Of course, more generally, all of the issues could be treated as interregional in nature.

### **3. Public expenditure**

The Scottish Parliament has considerable discretion over the allocation of the assigned budget, which exceeds £20 billion. The Barnett formula in principle governs the distribution of increments to public expenditure in Scotland, Wales and Northern Ireland.

*Would an increase in government expenditure in Scotland (financed through an increase in the assigned budget of the Scottish Parliament) be likely to stimulate the Scottish economy?*

Of course, such a policy could only be implemented by a decision of the Westminster Parliament, since the Scottish Parliament has no control over the scale of its assigned budget. However, it is the simplest type of expenditure change to analyse and therefore a useful starting point.

Begin by assuming away any immediate supply-side effects of the expenditure, so that the change can be regarded as a simple stimulus to the demand side of the economy. Conventional wisdom on the UK economy would regard a rise in government expenditure (at least if unanticipated) as stimulating real economic activity only in the short-run, until induced wage-price changes restore the NAIRU. The only lasting impact would be on wages and prices. This wisdom is not, however, directly transferable to a regional economy like the peripheral regions of the UK. Here in the presence of capacity constraints and a degree of local (real) wage bargaining, wage and price rises will accompany the stimulus to the regional economy. But in the case of a small, open region, labour mobility and capital accumulation can moderate and even ultimately offset the wage and price rises. The resulting stimulus to real economic activity is permanent, and large relative to the short-run impact. Inward migration and capital accumulation can take the “heat” out of local markets and, in the limit, restore wages and prices to their original levels. However, in the UK context labour mobility may be slow to occur and may be subject to restrictions (especially among the low skilled and those who require publicly provided housing). In this case adjustment to the long run may be extended, and there may be some permanent price and wage effects. But there can typically be no presumption of the 100% “crowding out” of government expenditure in the regional context, in general.<sup>7</sup>

*Are there any circumstances in which regional economic activity is invariant with respect to own-region demand?* If we focus on total employment, there are two sets of circumstances in which this could arise. First, if there existed a completely inelastic labour supply function within the relevant region. However, this seems unlikely given the possibility of migration, although it may apply in particular circumstances as, for

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<sup>7</sup> 100% crowding out refers to situations in which the government expenditure multiplier is precisely zero: the increase in government expenditure results in an exactly offsetting contraction in private expenditure.

example, in Jersey.<sup>8</sup> Secondly, if the “law of one price” applies in the traded goods markets of the region, in general demand expansions could not increase the real consumption wage nor stimulate employment (Minford and Stoney (1994)).<sup>9</sup> However, in practice we do not observe the degree of sensitivity to relative price changes and the extreme specialisation that such a model implies. If defined in terms of GDP rather than employment it is not clear that any conditions would ensure 100% crowding out. Even if employment were fixed the variations in response to demand changes would reflect compositional changes although only detailed examination could reveal the scale, and even direction, of effects.

Given that we are not persuaded by the general case for inelastic regional labour supply functions, nor perfectly elastic regional demand functions, the answer to our first major question is “yes”. However, there are a number of supplementary questions of interest.

*By how much is activity likely to be stimulated by an increase in government expenditure financed through an increase in the assigned budget?* Table 1 summarises the results suggested by our model of the Scottish economy (Ferguson et al (2003a)). In the short run the effects on GDP are smaller than they are in the medium run, when all migration is completed, and the long-run where, in addition, all capacity adjustments are made. Therefore for the regional economy the evolution of the aggregate effect over time is the reverse of that for the national economy. Aggregate regional impacts rise to a higher long-run equilibrium, rather than fall back to the initial equilibrium.<sup>10</sup> In the short and medium-runs at least, if there instead was national bargaining in Scotland, the impact would be even greater because here local real wages actually fall as expenditure increases.

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<sup>8</sup> See Learmonth *et al* (2003).

<sup>9</sup> The conditions that ensure “demand neutrality” here also imply that “only supply matters” for the real regional economy.

<sup>10</sup> However, natural rate or NAIRU properties still hold for wage and unemployment *rates* (McGregor *et al* (1995a)), provided that the regional economy behaves “as if” there is perfect factor mobility in the long run. (This requires, for example, a “flow” migration function of the type employed in Layard et al (1991)).

**Table 1. The Aggregate Impact of a 2.5% Increase in Government Expenditure**

|                                  | Short-run    | Medium-run  | Long-run    |
|----------------------------------|--------------|-------------|-------------|
| <b>GDP (expend. measure)</b>     | <b>0.36</b>  | <b>0.50</b> | <b>0.86</b> |
| <b>Consumption</b>               | <b>0.77</b>  | <b>0.81</b> | <b>0.94</b> |
| <b>Govt expenditure</b>          | <b>2.50</b>  | <b>2.50</b> | <b>2.50</b> |
| <b>Investment</b>                | <b>0.56</b>  | <b>0.79</b> | <b>0.72</b> |
| <b>Nominal before-tax wage</b>   | <b>0.67</b>  | <b>0.19</b> | <b>0.00</b> |
| <b>Real T-H consumption wage</b> | <b>0.42</b>  | <b>0.00</b> | <b>0.00</b> |
| <b>Consumer price index</b>      | <b>0.25</b>  | <b>0.19</b> | <b>0.00</b> |
| <b>Total employment (000's):</b> | <b>0.48</b>  | <b>0.70</b> | <b>0.96</b> |
| <b>Unemployment rate (%)</b>     | <b>-3.64</b> | <b>0.00</b> | <b>0.00</b> |
| <b>Total population (000's)</b>  | <b>0.00</b>  | <b>0.70</b> | <b>0.96</b> |

*How long does it take for these effects to arise?* Our model suggests that it takes a very long time, even if migration ultimately works as assumed in Layard *et al* (1991). However, this is sensitive to various other assumptions, including the nature of wage bargaining and the precise form of migration. These aspects of the Scottish economy are not yet fully understood, and so some uncertainty about actual effects remains.

*What about the effects on the rest-of-the UK?* The increase in the Scottish Parliament's assigned budget has to be financed somehow. If it is financed by a contraction in government expenditure in RUK, there are clearly negative effects arising from this. The Treasury view (at least until recently) appeared to imply 100% "crowding out" *from the perspective of the UK as a whole*: that is any stimulus to activity in Scotland must be offset by an exactly offsetting contraction elsewhere in the UK.<sup>11</sup> Our view is that this is not necessarily true when economic conditions and structures vary significantly across regions, as they do in the UK. The regional distribution of demand may matter for national economic activity.<sup>12</sup>

*What if government expenditure changes also have direct supply-side impacts?* Up to now we have assumed that the impact effects of changes in government expenditures are confined to the demand side. In fact, many elements of government expenditures may have supply side effects too. This is most obviously the case for expenditures directed at the supply side of the economy, for example training policies. However, more generally public expenditures may provide amenities that are valued by the public, as emphasised

<sup>11</sup> Note that this view does *not* imply that there is 100% crowding out within the region in which the expenditure stimulus occurs.

<sup>12</sup> See e.g. Ferguson *et al* (2004).



in the literature on fiscal federalism, but often ignored in other contexts. These amenities may influence both migration and wage bargaining behaviour (Sections 4) in a manner that would reinforce the demand side effects, because people value the amenities and so net in-migration would be further stimulated and wage bargainers induced to forgo some additional private consumption. However, quantifying these effects is problematic. Furthermore, if expenditures do have supply-side effects there is even less rationale for assuming the effects of regional distribution of expenditures must automatically be neutral.

Ultra conservatives argue that government expenditures are inherently less “productive” than private sector expenditures, so that expansion of the public sector has negative long-run effects on any economy (super crowding-out), but we are unaware of any direct evidence for such effects for UK regions.

*Does the composition of government expenditure matter? Yes, since different components of expenditures are likely to have different effects on the demand (and, in some instances, also the supply) side. Part of the efficiency gain from devolution reflects re-alignment of activity with local preferences, which we would expect to have some impact on the composition of expenditures.*<sup>13</sup>

*Summary.* While there remain uncertainties, we believe that even the demand-side consequences government expenditures are likely to have permanent effects on economic activity in the peripheral regions of the UK.

***Is the Barnett formula good news or bad for the peripheral regional economies of the UK?***

*Some commentators appear to believe that the Barnett formula gives Scotland (and Wales and Northern Ireland) an unfair share of public expenditure, while others warn of the impact of an implied “squeeze” on expenditure in Scotland. Which of these views is correct? The answer depends in part on whether we focus on the relative levels of expenditure per capita or changes in relative per capita expenditures. The Barnett formula implies that Scotland’s initial beneficial position, in that its expenditure share exceeds its population share in the base year, is preserved in the form of a fixed amount of nominal expenditure.<sup>14</sup> This guarantee of continuing favourable treatment for Scotland in the formula, in terms of its implications for the per capita level of nominal government expenditures, appears to be the source of criticism from, for example, some English regions (although their own expenditures are not directly formula driven). However, the real value of this fixed nominal expenditure and its importance relative to nominal government expenditure in England declines as the latter grows. Barnett therefore implies that Scotland’s expenditure share will fall through time, towards its population share.*

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<sup>13</sup> Bell and Christie (2001) find not statistically significant evidence for distinctive patterns in changes in Scottish government expenditures, but it is, as yet, early days. Of course, not all distinctive features of policy will be directly reflected in the composition of expenditure.

<sup>14</sup> See e.g. Heald (1996), Heald and McLeod (2002), Ferguson *et al* (2003b).

Ultimately expenditure per capita tends to equality with that in England.<sup>15</sup> This is the basis of the assertion that there exists a Barnett “squeeze”. (Cuthbert (1998, 2001), Kay (1998).).

*But is the Barnett formula fair?* In the UK context “fairness” in the regional distribution of expenditures is typically thought of in terms of whether regions “needs” are properly accommodated. Some regions may “need” more than others because the spatially dispersed nature of their population means that the costs of public sector provision are higher, or because they are poorer and require greater health expenditures *per capita* than more affluent regions. The Barnett formula only takes account of population levels, and while we would expect needs to increase with increases in population, it is clear that there are many other determinants of needs. There is, therefore, no fundamental welfare rationale underlying the Barnett formula.<sup>16</sup>

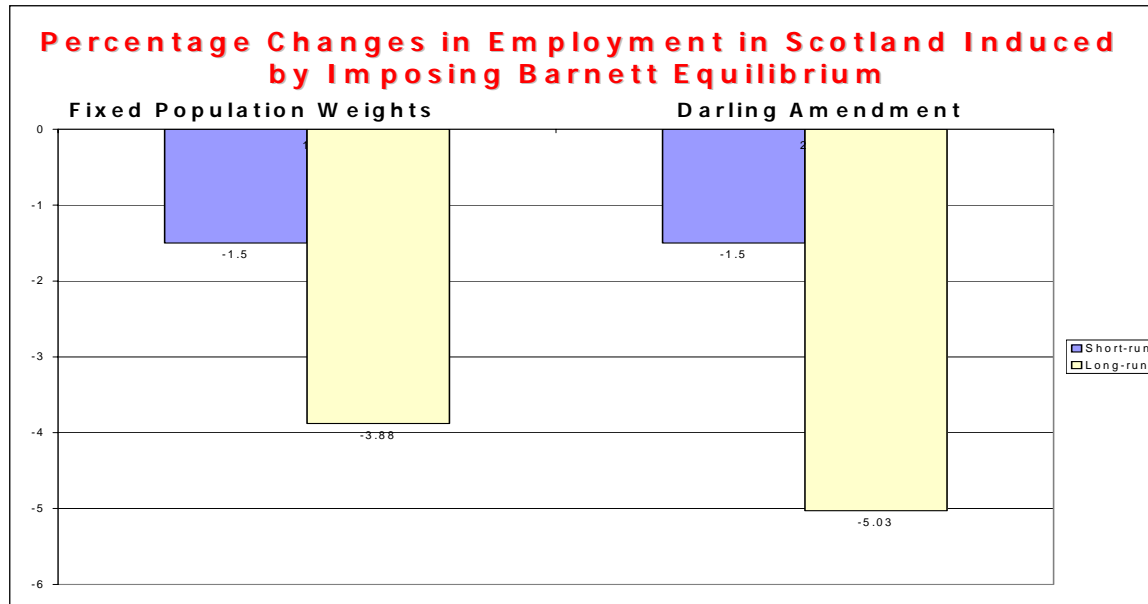
*What would be the consequences for the Scottish economy of rigorous adherence to the Barnett formula?* Figure 1 summarises the ultimate consequences for Scottish GDP and employment of adherence to the Barnett formula (Ferguson *et al* (2003b)). Notice that the shift to a system of up-dating the population weights used in the formula (the Darling amendment) adds to the contractionary impact. This is because any contraction in expenditures now leads to a fall in population, which imparts a further downward shock to expenditure through the weights used in the Barnett formula.

### **Figure 1. The Ultimate Impact of the Barnett Formula on the Scottish Economy**

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<sup>15</sup> However, it never actually gets there. The fixed amount of nominal expenditure because less and less important in relative and real terms, but is always present.

<sup>16</sup> However, Alastair McLeod has suggested to us that Barnett equilibria are not dissimilar to the types of equilibria apparent in other systems, e.g. Canada, where population levels are a key driver of expenditures.



*Do we need to be concerned about the contractionary impact of Barnett in the immediate future?* Because the formula only applies to the increment to expenditures, it is likely to take a very long time to achieve the long-run effects noted in the preceding paragraph. This much is clear even from simulations that abstract from system-side effects (e.g. Heald (1996), Heald and McLeod (2002)) and is simply reinforced by those that do attempt to accommodate such affects (Ferguson *et al* (2003b)).

*Does Barnett really matter in practice?* While the Barnett formula has been operating in principle since 1979, some argue (e.g. Midwinter (2000, 2002)) that we should not be unduly concerned about the implications of adhering to it, since Barnett does not govern the actual changes in the assigned budget. Others take a rather different view and the jury is still out, at least as far as the post-devolution era is concerned (e.g. Goudie (2002)).

*Is the Barnett formula likely to survive?* The uniqueness of the formula in a European context, its intended transitory nature and the general unhappiness with the formula in English regions and the territories *inter alia* suggest not (Ferguson *et al* (2003a)). However, the longevity of the formula to date, the inhibiting influence of extreme asymmetrical decentralisation and the (probably temporarily) continuing support of the present government militate against an early requiem.

*Summary and qualification.* Although our basic answer to the main question is that the Barnett formula is “bad news” for the peripheral regions of the UK, judgement depends upon the counterfactual. Our research suggests that Barnett is bad news when assessed *relative to the status quo*, which involves the maintenance of existing public expenditure shares. However, the *status quo* is unlikely to prove a feasible alternative under devolution.

While in this section we have examined the expenditure changes implied by Barnett, in the next section we consider changes generated by implementation of the “tartan tax” and by a move towards greater balance between regional expenditures and revenues.

#### **4. Taxation (and deficits)**

We now consider taxation explicitly. Although the Scottish Parliament has very limited powers of taxation, there was initially considerable debate as to whether these should in fact be used at all, but subsequently (despite the Labour Party’s commitment not to use them) whether these should be significantly enhanced through a move towards greater fiscal autonomy. We explore the likely impact of the Parliament using the power that it already possesses as well as the likely consequences of fiscal autonomy.<sup>17</sup> The factors that govern the likely impact for Scotland would also be relevant in assessing the impact of greater autonomy more widely. However, we begin by reviewing the significance of public sector deficits/ surpluses in a UK context.

##### *Do regional public sector (and current account) deficits/ surpluses really matter?*

Most commentators, and official data published in GERS, imply that Scotland has a structural public sector deficit, essentially due to higher *per capita* government expenditure (e.g. Goudie (2002)), although there is no unanimity on this issue (contrast e.g. Salmond (2003)). This existence of significant structural deficits in national economies clearly matters a great deal in terms of their “fiscal sustainability”, but should we be similarly concerned about the position of the regional economies of the UK? The example of Northern Ireland, which has sustained large public sector deficits over a long period of time, suggests that it may not be the problem for regional economies that it is presumed to be for national economies. The reason is clear: if the Westminster government is fully committed to maintaining the union, and is prepared to support deficit regions through centrally raised tax revenues, then there is no issue of fiscal sustainability at the regional level (McGregor *et al* (1995)).

In the very long run the central government’s willingness to fund regional deficits is, of course, likely to depend upon historical and institutional factors. These are likely to include the “importance of being unimportant” – the smaller the region the smaller the threat that its deficit poses to national fiscal sustainability and the “importance of being unnoticed” – since for many regions in the UK fiscal deficits were unknown. If the scale of regional deficits is unknown to the Westminster government this cannot be the spur for any conscious policy action. Overall regional public sector (and current account) deficits do not matter – at least to anything like the same degree as national economies.<sup>18</sup> However, the devolution process tends to bring such issues into sharper relief and renders it increasingly difficult for a deficit region to go unnoticed (although the only systematic

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<sup>17</sup> The First Minister, Jack McConnell, has apparently again committed to not raising taxes in Scotland. (Sunday Herald, 30/9/03.)

<sup>18</sup> Note that in the presence of a national welfare benefits system (e.g. state pension; unemployment benefit), there is no reason to expect the public sector finances to balance in any individual region.

attempts to measure regional deficits in the UK remain those for Scotland and Northern Ireland).<sup>19</sup> Furthermore, full fiscal autonomy (and certainly independence) could remove the commitment of the centre to fund the deficits of the periphery, so that regional budget constraints become “hard”, a possibility that we consider further below. It should be kept in mind that financial balances do not tell us all that we would wish to know about regional balance in the UK: for example, UK GDP *per capita* is likely to be higher than it would be in the absence of migration flows.

***What are the likely consequences of the Scottish Parliament exercising its current degree of fiscal autonomy and raising revenues through the “tartan tax”?***

In the early stages of the debate the power to vary the basic rate of income tax by up to three pence in the pound (approved separately by electors in the 1998 referendum) was the subject of considerable controversy, with the Conservatives claiming that it was likely to lead to a loss of jobs and population, and labelling it the “tartan tax”

*Were the Conservatives correct to warn of the likely adverse consequences of raising the tax to finance a balanced budget fiscal expansion?* Our own research does identify this as a possible, though by no means inevitable, outcome (e.g. McGregor *et al* (2004)). The hike in tax and government expenditure does stimulate the demand side of the economy, which is the source of the conventional result that this has beneficial consequences. (Private consumption does fall with take home pay but this is more than offset by the rise in public expenditure because, for example, the latter is less import-intensive and more labour intensive than the former.) But the rise in tax may make Scotland a less attractive place to live as workers’ take home pay declines. Furthermore, workers’ representatives may seek to bargain for a higher nominal wage in an attempt to restore their take home pay. In practice what matters is the balance of the beneficial demand side and adverse supply side effects.

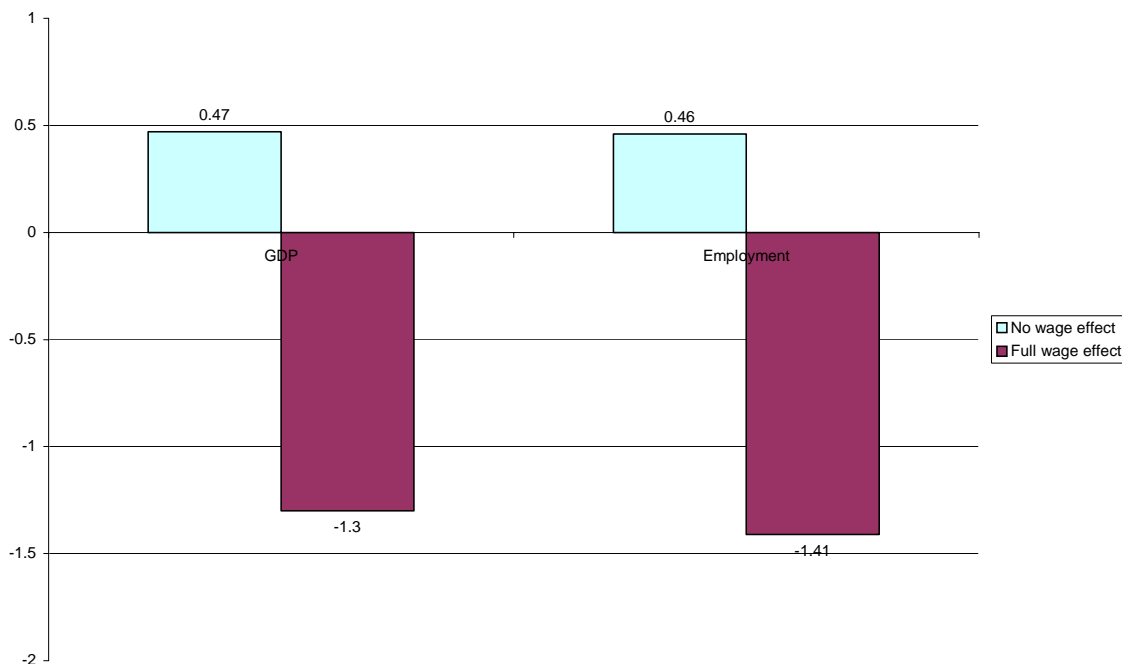
Figure 2 summarises the results of our analysis.<sup>20</sup> If there is no rise in the nominal wage there would be a beneficial impact on Scottish employment and population, because in this case there is no adverse supply effect. If, however, the wage rises so as to fully restore net of tax wages, the balanced-budget fiscal *expansion* would lead to a *contraction* in Scottish population and employment.

**Figure 2. The Impact of Introducing the “Tartan Tax” on the Scottish Economy**

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<sup>19</sup> The National Assembly for Wales began this exercise, but it was discontinued.

<sup>20</sup> This is based on the results reported in McGregor *et al* (2004). In fact, changes in the tax system imply that the results will now be greater.



*Under what circumstances would there be no wage stimulus following a hike in the income tax rate?* This could arise under UK-wide bargaining, so that the nominal wage is unaffected by the expansion (and indeed the real wage moves “perversely”, to reinforce the demand effects). However, since this would involve a loss of real income for Scottish workers it could put pressure on any national bargaining in the longer-run. Even if wage bargaining is regional in nature, the tendency for local wages to rise can be moderated if the increment to public expenditure is genuinely valued by migrants and workers, and this is reflected in a willingness not to press for higher nominal wages.

*Can the Scottish Parliament influence the likely direction of the effects of the “tartan tax”?* It seems likely that the Scottish people’s valuation of the increase in public expenditure varies with the composition of the expenditure. Partial hypothecation to items of expenditure deemed to be widely valued may therefore improve the probability of moderating adverse supply side consequences. There is evidence to suggest that Scots do value public expenditure more highly than those in the South East. Furthermore, it may be that the Parliament can use this valuation to moderate union behaviour in the wage bargaining process, by persuading them of the case for increase expenditures. While UK bargaining may no longer make reference to a “social wage”, the more local focus of bargaining in Scotland may mean that it is a possibility. To the extent that the Parliament is successful in persuading workers to “trade off” some take home pay for better quality public services, the adverse supply effects of the tax will be reduced and perhaps more than offset.

***What are the likely consequences of a move to greater fiscal autonomy?***

*What is the probable impact of greater fiscal autonomy in the peripheral regions of the UK?* As already noted, the traditional fiscal federalism literature would emphasise the additional efficiency gains that would arise from greater fiscal autonomy, but “full” autonomy would raise issues of equity if the peripheral regions all exhibit structural public sector deficits.<sup>21</sup> Furthermore, we have seen that such autonomy may also create scope for reduced efficiency through the creation of new spillovers (see Section 5). We also need to distinguish the benefits that accrue from the outputs produced by government expenditure (e.g. security) from the benefits derived from the associated demands for inputs (e.g. location of defence bases).

*Would “hard” regional budget constraints be “bad news” for the peripheral economies of the UK?* A movement to full fiscal autonomy in the UK would imply that surplus regions could stimulate their activity through tax cuts or expenditure rises, whereas deficit regions would experience contraction. If, as is believed to be the case in the UK, the South East is a surplus region and the peripheral regions are in deficit, full fiscal autonomy could have major adverse effects on regional equity in the UK. In the Scottish context moving to complete fiscal autonomy would imply that the “soft” regional budget constraints that reflect the Westminster’s continuing commitment to the regions of the UK, will become “hard” and binding. Accordingly, the issue of fiscal sustainability becomes a relevant one for autonomous regions as well as the nation as a whole. What would be the likely consequences of such a shift in the status of regional budgets? Our initial investigations, reported in McGregor *et al* (1995), suggest potentially significant adverse impacts on peripheral regions. Nor is this a worst-case scenario since, as we have already seen, supply side consequences could reinforce the pure demand-side impacts considered here. However, the scale – and indeed direction – of the initial shock depends not simply on the scale of any deficit (surplus), but on the precise form of greater autonomy adopted.<sup>22</sup> The starting position of regional economies ultimately may not matter much though if fiscal autonomy could stimulate growth.

*Could there be a stimulus to regional growth from greater fiscal autonomy?* The traditional literature does not in fact deal with growth directly, so that there is a theoretical as well as an empirical issue here. While the arguments are typically framed in terms of static efficiency gains, it may possible to argue that some subset of these extend to a dynamic context (Martinez-Vasquez and McNab (2001) and Newlands (1997)) but counter-arguments about possible inefficiencies can presumably also be so extended so that that the issue is again an empirical one (Rodriguez-Pose and Bwire (2003)).<sup>23</sup> The most likely source would be through enhanced efficiency and innovation, and the incentives of this would undoubtedly be enhanced by devolution of tax revenues as well as expenditures. However, the evidence on the growth effect of the extent of devolution is

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<sup>21</sup> Considerable problems beset the precise definition and measurement of the degree of fiscal autonomy. (See e.g. Darby *et al* (2002, 2003a).)

<sup>22</sup> See e.g. Bruce (1995), Maskin (1996) and Rodden (2002, 2003) on regional budget constraints. Darby *et al* (2003b, 2004) consider the role of decentralisation in fiscal consolidation.

<sup>23</sup> See Ashcroft (1998) for a discussion of the potential for the Scottish Parliament to influence economic growth. Baumol (2003) provides a US perspective on Scottish growth.

mixed.<sup>24</sup> Eire is often held up as an example of an economy that exhibits many of the features of a small, open regional economy, whose fiscal autonomy was used to great effect to attract inward investment through low corporate taxation and stimulate unprecedented growth. However, the lessons to be drawn from this case study are disputed (Alexander (2003) and Krugman (2003)).

### ***What about other sources of revenue?***

*Current options?* Even under the current legislation, there are alternative sources of revenue, including: business rates and council tax. Bailey and Fingland (2003) emphasise charges as the most likely source of additional revenues. To our knowledge there has been no systematic analysis of the likely effects as yet (beyond some exploratory investigations of road charging).<sup>25</sup> However, the devolution legislation does have a Treasury “catch-all” that allows it discretion over the assigned budget if developments in Scottish local authority taxes are judged to be out of line with RUK.

*Potential future options?* Under full fiscal autonomy the full range of tax powers would become available to the Scottish Parliament, although EU legislation would circumscribe the extent to which certain taxes could be manipulated. It would clearly be of interest further to explore alternative degrees of autonomy (including counterfactual symmetric systems) to inform assessment of the current system, and we regard this as a priority for future research.

## **5. Regional economic development**

In a sense this is perhaps the single most important aspect of devolution, in that most of the devolved economic powers relate to typically supply-side oriented development policy, with policy documents often referring to innovation in the knowledge-based economy as a key strategy.<sup>26</sup> Although we have acknowledged interregional interactions in our preceding analysis, here we typically adopt an explicitly interregional approach to highlight a number of issues that are of significance for the efficacy of devolution process. We start with an issue that is fundamental to our perception of regional policy efficacy: the underlying vision of the interregional macro-economy.

### ***If policy stimulates activity in a peripheral region such as Scotland, is this necessarily at the expense of activity in the rest of the UK?***

*Is there any rationale for the “100% crowding out” view that the Treasury appeared to adhere to until recently?* Until very recently the Treasury formally adopted the view that regional policy was simply about distribution: it could have no macroeconomic effects. A

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<sup>24</sup> Thiessen (2003) is a recent example that reviews of some of the earlier literature and finds some evidence in favour of a “hump-shaped” relationship between regional growth and the degree of autonomy.

<sup>25</sup> Danson and Whittam (2003) discuss the possibility of a “Scottish Service Tax”, but this takes the form of a “local” income tax used to finance public investment.

<sup>26</sup> Goodwin et al (2004) discuss the impact of devolution on economic development policy in the devolved territories.



key problem with this view is that much recent regional policy has been supply-oriented, and there is no economic theory that implies general 100% crowding out of supply disturbances.<sup>27</sup> At best, the view would be applicable, then, to simple re-allocations of demand across regions of the U.K. However, the conditions required for 100% crowding out seem very restrictive. In the presence of supply conditions that vary across regions, the regional distribution of demand will matter for the level of national economic activity. Given the variation in supply conditions across regions of the UK, it is almost inconceivable that any UK NAIRU could be independent of the regional composition of demand, although macro-econometric tests may find it difficult to identify this correctly. There is, in our judgement, no rationale for this view in economic theory, although we recognise the administrative convenience in terms of project evaluation and, in particular, avoidance of the need to conduct detailed investigations of demand effects by region. The view also neatly eliminates the multi-regional lobbying activity that might otherwise arise.

*What is implied by the view underlying the “new regional policy”?* The 100% crowding out view appears to have been superseded by a focus that is very much on each region “realising its potential” and seeking to grow through supply-side-reform-induced productivity growth.<sup>28</sup> Indeed, here not only is there apparently no adherence to the old notion of a 100% crowding out, but the impact of any individual region’s actions on any other region appears to be ignored entirely. However, replacement of the view that any individual region’s action will generate an equal and opposite reaction in other regions with the view that regions can be treated as if they are autarkies so that reactions in other regions apparently do not matter at all seems odd.<sup>29</sup>

*If not “100% crowding out” nor “autarky” what is it?* We can be fairly confident that the truth is captured by neither of these two views of regional interaction (or lack of it), but not surprisingly identifying the correct view of interregional interaction is not straightforward. However, there is no alternative to detailed consideration of the demand and supply conditions of individual regions, for interregional interactions depend on the precise configuration of demand and supply sides of all the regions in the system. Our own interregional system allows interactions through: trade flows; wage-setting and migration.<sup>30</sup> Ironically, this leads to a view of regional policy that is, in some respects closer to the traditional UK view that preceded both the 100% crowding out and the new regional policy perspectives, than to either of the more recent perspectives. However, it is clear that our view of the interregional macro-economy is not dependent on traditional Keynesian versions of market failure (though these may be important), nor on the notion that supply does not matter.

***What are the consequences for devolved and delegated regional policies of the presence of “spillover” effects to other regions?***

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<sup>27</sup> Layard, Nickell and Jackman (1991) do argue that this applies for productivity changes, however.

<sup>28</sup> See DTI *et al* (2003).

<sup>29</sup> See McVittie and Swales (2003a,b) for critical analyses of current UK regional policy.

<sup>30</sup> See e.g. Gillespie *et al* (2002), Ferguson *et al* (2004).

*What are spillover effects?* Spillover effects arise wherever the policy pursued by one regional authority impacts on economic activity in another. These are typically regarded as externalities since under delegation or devolution there may be no reason why such effects would be taken into account by the authorities responsible for regional policies. Such effects can occur through trade and factor markets (for example, through migration or wage bargaining mechanisms).<sup>31</sup> Clearly the traditional Treasury view implies a negative spillover on other regions of a scale sufficient to ensure that regional policy could have no aggregate employment effects. The “new localism” and associated modern regional policy implicitly assumes that such spillover effects are unimportant, since the focus is on each individual region fulfilling its potential.

*Are regional economies interdependent?* It is almost inconceivable that the answer to this question can be no, since the interdependence of macro-economies and its consequences are well-known (e.g. McKibbin and Sachs (1991)), and regional economies offer additional transmission mechanisms, most notably in factor markets (for example through migration and wage bargaining effects). No doubt there are some policies that are so modest in scale, or so targeted that they have negligible spillover effects beyond the region of interest. However, the vision of the interregional economy that we sketched in the preceding question does, of course, imply that we would normally expect such effects to be present. Alternative visions of the interregional economy also imply this. Interregional input-output systems imply the presence of universally positive spillover effects operating through interregional trade linkages. SAM-base modelling systems strengthen our understanding of demand linkages among regions. However, the presence of a national supply constraint on a regionally-mobile factor (such as labour) enhances the probability of negative spillovers as one region’s expansion implies that less of the scarce factor is available for other regions (and invalidates interregional input-output systems of such national economies).<sup>32</sup> This effective interregional competition for a scarce resource induces adverse competitiveness effects, although (as already noted) only in special cases will this result in no stimulus to the national economy.

*Are UK regional economies interdependent? (Or, do spillover effects matter in the UK regional context?)* Obviously the traditional Treasury view implied that they are, with negative spillovers ensuring 100% crowding out for the UK as a whole. However, the direct empirical evidence on interdependence in the UK is perhaps surprisingly limited. Matters are not helped by the paucity of data on interregional trade and financial flows, although the linkages among UK regions are such that there is a strong presumption of interdependence. In our own work the fact that the migration process takes a long time means that typically it is the positive spillover effects of policies that predominate in the shorter-run, but the negative effects are stronger in the long-run.<sup>33</sup>

*What are the implications for the conduct of regional policy under devolution/delegation?* Suppose initially that the spillovers associated with a particular policy are negative but that devolved authorities are ignorant of, or simply choose to ignore, their

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<sup>31</sup> Gordon (1987) suggests and analyses a number of sources.

<sup>32</sup> See McGregor *et al* (1999).

<sup>33</sup> Ferguson *et al* (2004) provide some evidence from a Scottish-RUK interregional model of the UK.

existence. Then intuitively the devolved authorities would “overuse” this policy relative to the use that would maximise the welfare of the UK as a whole. Region 1 would implement this policy, but this would have an adverse impact on region 2, which might respond by further increasing its expenditure on this policy. In turn this would have an adverse impact on region 1 and so on. Efficiency may be improved through co-ordination of policies that may generate something closer to joint welfare maximisation.<sup>34</sup>

*What if spillovers are positive?* Suppose spillovers are positive, as suggested by literature that abstracts from the supply side, or is short-run in nature. Here the policy would be under-used relative to the socially optimal level since the external benefits would not be taken into account by delegated or devolved authorities.

*Would the gains from co-ordination be significant?* Clearly the potential wasteful competition for inward investment resulting in a “race to the bottom” is constrained by the extent and asymmetrical nature of devolution in the UK, but the recent “compact” ?? suggests it is, quite rightly, an issue of concern. However, there is as yet no evidence from UK regions on the possible benefits from policy co-ordination.

### ***Other aspects of economic development***

*Do Scottish Enterprise’s activities (for example) benefit Scotland/ RUK or neither?* There has been some limited research into this issue, based on a hybrid approach that incorporates micro survey evidence and interregional modelling.<sup>35</sup> It suggests beneficial impacts on Scotland and the UK as a whole, but especially over the long-run as migration flows have a greater impact, there may be negative effects on the economy of RUK. In principle at least, devolution would be expected to improve the efficiency of development bodies such as Scottish Enterprise by increasing accountability.

*Does inward investment have beneficial impacts on the peripheral regions of the UK economy, and can devolution stimulate such flows?* There are typically costs and benefits associated with inward investment, but the latter probably predominate for greenfield sites.<sup>36</sup> There is as yet no empirical evidence on the impact of devolution on the scale of inward investment: no commentators attribute the recent significant decline in such flows to decentralisation.

*How does devolution influence attainment of sustainable development?* All the devolved territories are committed in principle to sustainable development as an objective of policy, and their co-operation is presumably essential to national objectives. While all authorities publish lists of individual and composite indicators, policy makers presumably have also to understand the transmission mechanism from their policies to environmental

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<sup>34</sup> See e.g. McKibbin and Sachs (1991) and Mooslechner and Schuerz (2001) for reviews and analysis of the literature on macroeconomic policy co-ordination.

<sup>35</sup> Gillespie *et al* (2002b) and Fraser of Allander (2003).

<sup>36</sup> See e.g. Ashcroft and Love (1993), Gillespie *et al* (2001a,b; 2002a).

indicators, and research on this in UK regions is in its infancy.<sup>37</sup> It seems clear from preliminary analysis, however, that environmental “spillovers” are of a sufficient scale to be of policy interest.<sup>38</sup>

There are, of course, many other dimensions of regional economic development that we simply do not have the space to cover, including the link to innovation and new firm formation;<sup>39</sup> the impact on clusters and skill acquisition and education.<sup>40</sup> However, in each case we believe that theoretically the links could go in either direction, although the traditional federalist arguments would suggest the potential, at least, for positive effects in each case. Certainly for the UK it is too soon to judge on outcomes.<sup>41</sup>

## 6. Conclusions

We do not repeat the conclusions with respect to individual aspects of policy here, but try to draw out some general lessons for future research. First, we do believe that the debate on the economics of devolution/ decentralisation in the UK has improved significantly in the recent past, although from a modest base. Secondly, it is clearly too early to provide any *ex post* assessment of the overall impact of devolution/ decentralisation in the UK: we simply do not yet have sufficient experience of the new systems, parts of which in any case continue to be in a state of flux. Thirdly, assessment will prove difficult and demanding since there is no alternative, in our view, to further in-depth research on the interregional economy of the UK: simplistic views of regional economy operation are unlikely to find useful application in a UK context. Fourthly, the highly asymmetric nature of decentralisation in the UK adds substantially to the complexity of any attempted overall evaluation.

Decentralisation has come to be viewed as a key instrument of regional development policy that facilitates regions “fulfilling their potential”. This emphasis contrasts with conventional conceptions of regional economic policy, and raises a number of issues that require further careful consideration, though these are likely to impact differentially on de-concentrated, delegated and devolved authorities. First, there is some doubt as to whether the coverage, quality and timeliness of existing regional data provision is sufficient to support decentralised decision-making (or facilitate the efficient conduct of any national regional policy). The Allsopp (2003) review seems likely to stimulate improvements.<sup>42</sup> Secondly, the current perspective on regional policy (DTI *et al* (2003))

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<sup>37</sup> See e.g. Ferguson *et al* (2003a) for a first attempt to provide an economic-environmental CGE model of Scotland.

<sup>38</sup> See e.g. Ferguson *et al* (2003d) for an I-O and SAM-based interregional attribution analysis.

<sup>39</sup> See e.g. Fraser of Allander (2001).

<sup>40</sup> Fortunately, a number of these issues, together with the implications of the new economic geography are the subject of a collection of excellent articles in *Regional Studies* volume 36 numbers 6/7.

<sup>41</sup> Cooke (2004) assesses policy “styles” in economic development in the devolved territories, judging them to be differentiated, despite the similarities in aspirations: Scotland’s approach is considered “visionary”, Welsh development policy is “cautionary” and Northern Ireland’s is “constrained”.

<sup>42</sup> Scotland is much better provided for in this respect than other regions e.g through the Scottish Executive’s commitment regularly to publish input-output tables, and since devolution steps have been

appears to have lost sight of the fact that the national economy of the UK comprises a system of interdependent regions. While we believe that it is important to escape the straightjacket of the Treasury's former view of 100% crowding out, this does not necessitate, nor should it involve, adoption of a vision that appears not to acknowledge interregional interdependence at all. Thirdly, however, our knowledge of the precise nature and extent of interregional interdependence, including in some instances the direction as well as the scale of any spillovers, remains fairly limited yet this is crucial to the appropriate formulation, and ultimately evaluation, of any policies with a spatially differentiated impact.<sup>43</sup> Finally, there is a need to explore the requirements for effective policy-making under delegation through, for example, careful target-setting, and the potential for policy co-ordination (whether spontaneous or centrally encouraged) among devolved authorities.

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taken to improve provision further. However, lacunae remain including e.g. price, interregional trade and finance data.

<sup>43</sup> Taylor (2002, p204) regards the impact of policies on non-targeted regions as the "big question" for regional policy evaluation.

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