

## Evidence on GERS to Finance Committee, January 2007, Neil Kay

GERS clearly provides some answers, though less clear may be the questions that GERS provides answers to. The brief for the evidence session invites '*views on the methodology and assumptions used in GERS and ... on it as a national statistics publication and a "best estimate" of the Scottish position*'. We shall take for granted that there are acknowledged methodological limitations of GERS and that these are real and key problems. However, many of the relevant issues have been noted in previous work such as that by Cuthbert and Cuthbert<sup>1</sup> and it is assumed both that the Finance Committee is aware of their important work and that there is no need to replicate the arguments here.

Here we shall concentrate on some issues of potential relevance to some long term trends regarding Scottish public finances and consider to what extent methodological considerations permit us to use GERS as a "best estimate" of the Scottish position in these regards. We shall argue that it is absurd to exclude the oil and gas sector from baseline estimates of Scottish public finances or indeed GDP, not just for the well-stated reasons that they underestimate them, but because of the powerful impact of such a major natural resource on the non-oil economy. If it is possible to identify regional (Scottish) shares of the public good of defence spending in GERS, then it does seem curious that it is apparently so difficult to do the same in the case of tax revenues from private goods in the oil and gas sector. With that in mind, we focus on the crucial issue of long term trends in Scottish public finances in GERS 2004-05<sup>2</sup>. GERS notes that for Chart 7.3 (attached here as an Appendix): "*The underlying relationship between the two series has been broadly stable with the expenditure share exceeding revenues by around 1 or 2 percentage points. The gap has slightly widened over recent years although this was also evident around the period 1986-1990*".

The first issue to be attended to is; to what extent, given the known methodological limitations of GERS could this chart be taken to be a reasonable indicator of aspects of long term trends in Scottish public finances? We first note that even if exclusion of petroleum-related tax revenues represented a bias, it may still be possible to identify clear trends and relationships in other elements of the GERS analysis. Further, there could still remain biases in the remaining components of the analysis but as long as these biases were consistent (e.g. if corporation tax were regularly over- or under-estimated by about the same percentage amount) it may still be possible to infer some long-term trends using GERS. Also sampling errors for a single year may be less of an issue for a series tracked over a sufficiently long period, here 25 years. Therefore, even if there remain legitimate reservations regarding the methodology and accuracy of other elements of GERS, GERS may indicate some long-term trends in non-oil expenditure and revenues, regardless of whether the Scottish finances are in deficit or surplus.

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<sup>1</sup> For example, *A Critique of GERS: Government Expenditure and Revenue in Scotland*, Cuthbert, J.R., Cuthbert, M.: Fraser of Allander Institute Quarterly Economic Commentary, vol 24, no.1 (1998): *A Constructive Critique of the Treasury's Country and Regional Analysis of Public Expenditure*, Cuthbert, J.R., Cuthbert, M: Fraser of Allander Institute Quarterly Economic Commentary, Vol 30, No.3: (2005)..

<sup>2</sup> <http://www.scotland.gov.uk/Resource/Doc/159996/0043602.pdf>

If we tentatively accept the GERS measurements here as potentially providing a useful indicator of long term trends, there still remain problems. Interpreting statistical series is notoriously subject to perception and interpretation and can be influenced by which time periods are selected for review, but it must be said that that my perception and interpretation of this series is quite different from the GERS economists. GERS says the gap between the expenditure and revenue series has “slightly widened” over recent years, but what I see is a gap averaging about 0.8 percentage points in the first three years 1980-83 widening to an average gap of about 1.7 percentage points over the last three years 2002-05. A rough doubling of the gap over the period is difficult to reconcile with a description of “slightly widened”. Nor do I see the relationship between the two series as “broadly stable”. On the contrary, there seems to be a trend of relatively slow decline on the expenditure side of about 0.2 to 0.3 percentage points 1980-83 to 2002-05 against a relatively rapid decline on the revenue side of about 1.1 percentage points from 1980-83 to 2002-05. GERS cites 1986-90 here, but this period looks more like a temporary expenditure peak and revenue trough in the context of longer term trends of increasing divergence of the two trend lines, a potentially very serious policy issue if validated.

One way of examining whether GERS’ methodology here is producing trend(s) which reflects or echoes actual long term trends in the Scottish economy is to ask the question; is the pattern shown in Chart 7.3 consistent with what we would expect to see from other evidence? These are two sets of evidence which might be useful in these respects. First, we could ask if it is consistent with other empirical evidence on the Scottish economy. In these respects the relatively poor industrial performance of the Scottish economy against international comparators (including UK) over the period in question (slow growth, poor levels of new business formation, sluggish productivity, etc.) would suggest that declining Scottish tax revenue from various sources as share of UK described in Chart 7.3 is not surprising, but indeed is to be expected. Second, we could ask if the trend(s) in Chart 7.3 is consistent with other evidence for an economy/region in Scotland’s position. One obvious culprit for declining Scottish tax revenues as share of UK is Scotland’s relatively static population relative to the UK.

However, there is a further set of potential influences here which has been the subject of considerable economic research in recent years into what is termed “the Resource Curse”. The “Resource Curse” is remarkable for several reasons. First, it is counterintuitive. The “Curse” is the apparent paradox that countries with a windfall “blessing” of natural resources tend to grow more slowly than countries without these natural resources. Second, it has strong support from empirical evidence. Third, there are a number of possible transmission mechanisms for the Resource Curse, and which hold in practice may depend on the case in point. Fourth, it has only become a recognised phenomenon in the last few years despite the strong empirical evidence that it exists<sup>3</sup>.

Could GERS indications of a deteriorating tax base be a consequence of a Resource Curse in the context of the windfall of North Sea oil? We can first disregard some candidate explanations for a Tartan Resource Curse. For example, effects of a windfall

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<sup>3</sup> See Jeffrey D. Sachs, J. D and Warner A. (2001) “The curse of natural resources” *European Economic Review* 45 827}838 <http://www.earth.columbia.edu/about/director/pubs/EuroEconReview2001.pdf>

of natural resources on interest rates and real exchange rates would be expected to impact on the UK economy as a whole rather than Scotland's place within that economy. Also, other aspects of the Resource Curse literature such as corruption and rent seeking may be deemed potentially more relevant to some LDCs than to the Scottish case.

However, there remain other potential influences that could still hold in a Scottish context. The Harvard economists Sachs and Warner<sup>4</sup> have conducted significant research into this issue and note that increasing demand for inputs from the natural resource sector can drive up input costs and wages, squeezing profits of (and crowding out) traded activities such as manufacturing that compete with the natural resource sector for these same inputs. The crowding out of manufacturing then puts the squeeze on the growth process. There is certainly some casual evidence that these processes may have been at work in the context of North Sea oil, for example the crowding out of some light engineering activity in North East Scotland with the advent of the oil industry there. Ironically the GERS statement of Scottish finances may be showing the disbenefits of oil without consideration of the direct revenue benefits.

While most of the theoretical and empirical work has been carried out at the level of countries, what is particularly significant from the point of view of Scotland is that work on the possibility of a Resource Curse at the level of resource-abundant regions within a developed country (the US) has begun to emerge in the past few months<sup>5</sup>, and these findings appear to be broadly consistent with crowding out of growth-oriented activity by resource abundance (and concomitant adverse effects) observable at country level. Indeed, it is entirely possible that Scotland's population problems may not be a wholly separate issue, but could itself be (at least in part) a side effect of the Resource Curse.

One point worth noting in passing is a parallel set of arguments looking at public sector crowding out private sector activity, reflected in a recent David Hume Institute seminar<sup>6</sup>. The remarks by Dr Fabian Zuleeg on "*resource crowding out*" and by Professor Brian Ashcroft on "*dynamic crowding out effects which have a negative impact on the drivers of private sector growth such as entrepreneurship, innovation, investment, competition and skill formation*" are particularly noteworthy because to a large extent they appear to independently echo some microeconomic pressures and effects that are also associated with the Resource Curse. The possibility of a pincer movement on the tax base of Scottish public finances from twin public sector and Resource Curse crowding out effects is as depressing as it is interesting. In fact, given the growing international evidence for Resource Curses at regional as well as country level, if it is argued that Scotland has

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<sup>4</sup> Ibid

<sup>5</sup> See: Regional Specialization in the Long Run, Guy Michaels, October 2006

[http://personal.lse.ac.uk/michaels/Michaels\\_Specialization\\_Fall\\_2006.pdf](http://personal.lse.ac.uk/michaels/Michaels_Specialization_Fall_2006.pdf),

Resource-Abundance and Economic Growth in the U.S. E. Papyrakis and R. Gerlagh 2004

[http://130.37.129.100/ivm/organisation/staff/papers/EER\\_resourcesUS.pdf](http://130.37.129.100/ivm/organisation/staff/papers/EER_resourcesUS.pdf)

Does the Natural Resource Curse Apply to the United States? C. Cooke, D. Aadland and R. Coupal May 2006 <http://www.uwyo.edu/aadland/research/resourcecurse.pdf>

<sup>6</sup> See the report of the David Hume Institute seminar October 2006 at;

<http://www.davidhumeinstitute.com/DHI%20Website/Events,%20transcripts%20&%20presentations/Events%202006/Commentary%2010%20October.pdf>

escaped a Resource Curse, it would be reasonable to ask why. An economist from Mars, knowing all about the Resource Curse but nothing about Scotland, would not be surprised by news of the poor performance of the Scottish economy and its contingent tax revenues following the windfall of North Sea oil. We leave as a separate issue why GERS shows government spending declining more slowly than might be expected from a Barnett Squeeze, a trend that may itself be subject to change in the future.

If there is a Resource Curse at work in the Scottish context, then it may be consistent with trends identified in GERS, but even more importantly it will have serious policy implications for the Scottish economy, including its public finances. It would be useful if the GERS approach could be extended to look at regional and sectoral trends in public finances within Scotland, amongst other things it could give valuable information as to whether or not there is a Resource Curse at work, and if so, the form it takes. The Norwegian example<sup>7</sup> shows that the adverse effects of a Resource Curse are not inevitable, but a prerequisite for framing policy to deal with it is recognising in the first instance that it may be a real danger for a resource abundant country or region. This is especially important given the possibility also exists that Scotland could be doubly cursed in the absence of specific policies framed to counter a Resource Curse, the first time during the extraction phase, the second time being left competitively disadvantaged with weakened tradable sectors once the oil eventually does run out. Study of how Norway anticipated and dealt with the crowding out effects of the Resource Curse should be mandatory for all Scottish policy makers. However, at the moment there is no strong indication that the tendency (or possibility) of severely divergent expenditure and revenue trends that GERS appears to flag up is recognised in the accompanying analysis in GERS, let alone any broader recognition of policy implications contingent on a weakening tax base.

## Conclusions

- (1) GERS has methodological limitations, many of which have been well documented.
- (2) It is absurd to exclude the oil and gas sector from baseline estimates of Scottish public finances and GDP, not just for the well-stated issue of underestimation of these figures, but because of the powerful effect this major resource sector may have on the non-oil economy.
- (3) Nonetheless, GERS may provide useful indications of long run trends.
- (4) Aspects of long run trends in public finance tracked by GERS are consistent with what would be expected from other evidence.
- (5) These trends signal serious policy issues for the management of the Scottish economy
- (6) A prerequisite for sound policy advice is recognition of the nature and implications of these trends but there is no strong evidence of such recognition in the accompanying analysis in GERS.

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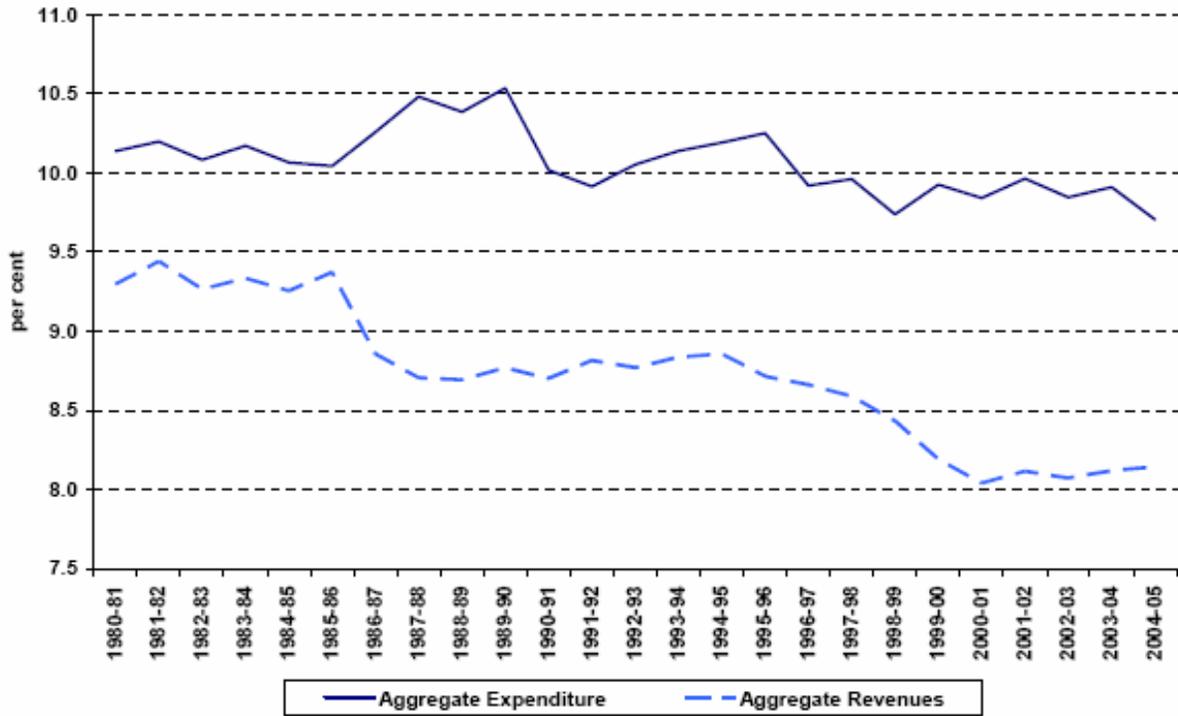
<sup>7</sup> The Economic Effects of North Sea Oil on the Manufacturing Sector H. B Bjornland

<http://ideas.repec.org/a/bla/scotjp/v45y1998i5p553-85.html>

Escaping the Resource Curse and the Dutch Disease? When and Why Norway Caught up with and Forged ahead of Its Neighbors Erling Røed Larsen <http://ideas.repec.org/p/ssb/disppap/377.html>

## Appendix

Chart 7.3 Government Expenditure and Revenue, Scotland as share of UK



Source: Government Expenditure and Revenue in Scotland 2004-5, Scottish Executive 2006