ECONOMIC PERSPECTIVE

STUCK ON THE STARTING BLOCKS
A RESPONSE TO MR STEVEN'S COMMENT ON THE SNP GENERAL ELECTION BUDGET 1997

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History has a habit of repeating itself with a dismal regularity. In 1970, Oxford University Press published a book edited by Professor Neil MacCormick[1], this included two essays making an economic case for and against Independence. The authors were Professor KJW Alexander in the grey corner, and Professor David Simpson in the sunshine corner. The former was Professor of Economics at Strathclyde while the latter became the founder-director of the Fraser of Allander Institute. The same book published a reply to Simpson from Alexander and then a reply to Alexander's reply from Simpson. And so it was to continue.

Even then the arguments being rehearsed in Mr Steven's piece in this journal found early expression in what Professor Alexander had to say. Then the economic case against independence was centred on the contention that Scotland would inherit a fiscal deficit of some £100 million.

In reality of course the inherited fiscal position is of less importance to the economics of independence than the dynamics. It is not the starting point but what happens through time that is of greater importance. If an independent government is better for the Scottish economy than London government, delivering faster growth and releasing any latent enterprise potential then any initial fiscal surplus would quickly diminish. Alternatively if we in Scotland are innately incapable of sound government then the existence of an inherited surplus would quickly disappear, transforming into a deficit. It is therefore far more informative to analyse the dynamics of the economics of independence.

The SNP have begun that process, firstly by commissioning an initial study into the impact of the relocation of the centre of power to Edinburgh.[2] The results of this were not included in the SNP Budget but if they were they would add significantly to the credit side of the economic case.

The next stage was the construction of a 'budget' for the first term of an independent Parliament. This took the existing Government expenditure and revenue plans as its starting point and altered these in line with differing policy objectives. However, since the late 1960s, the economic case against independence has remained largely stuck on the starting blocks. An economic analysis of the alleged inherited fiscal situation is, to proponents of the negative case all important. The key motivation is political. This argument attempts to foster a dependency culture in Scotland, to develop the idea that Scotland is dependent on London for its economic well-being. The long-term impact of preaching dependency has not been estimated but has probably had a negative effect on the dynamism of the Scottish economic agent. After all, why get up and go when someone else is doing it for you.

It is very interesting in that light to note the words of Professor Sir Donald Mackay, who in his introduction to a book published in 1977[3], wrote:

"Scots have many virtues, but constructive self-criticism is not their strong point. This reflects a basic lack of confidence, which in the discussion of economic matters is revealed by two extreme viewpoints. The first, and historically the predominant, argument is that the Scottish economy is so weak and dependent on England that self-government would result in serious economic disadvantage....[this argument]..at worst represents an ***unthinking conservatism****, which can affect both wings of the political spectrum*[4]*, and which appears to take little account of the political realignments of the post war period"*[5].

Proponents of the economics of independence have therefore been left with the choice of focusing solely on the dynamic benefits and thereby being left with the unanswered conundrum of an alleged fiscal shortfall on the independence starting blocks, or taking the arguments of what Mackay calls 'unthinking conservatism' head on. The SNP decided some time ago, to attempt both.

Mr Steven's' Contribution

Mr Steven's paper, and his earlier letters to the Scottish press,[6] provide a welcome focus on the SNP programme. However, the tone of the vast bulk of his article is curiously and extravagantly scornful - more polemic than analytical. People should of course be free to pursue a professional and political career simultaneously but in doing so should make clear which hat they are wearing at any one time. His main criticisms are also demonstrably unfounded. The key points made by Mr Steven's that I would like to address are as follows:

- The contention that the analysis of the 'relative' fiscal position is unwarranted.
- The contention that the method used to estimate Scotland's future fiscal position is wrong.
- The contention that Mr Steven's method of estimation is more accurate.
- The contention that the economic windfall of North Sea oil would have been a burden on an independent Scottish economy.
- The contention that the growth assumptions in the SNP budget are 'a triumph of assertion over analysis'.

The Politics of Scotland's Fiscal Position

The debate on Scotland's fiscal position was re-ignited in the lead up to the 1992 election by the publication of a document - Government Expenditure and Revenues in Scotland (GERS) - which was intended to be used for political purposes. The proof of the motivation for the publication is to be found in a letter from the then Secretary of State, Ian Lang, to the Prime Minister dated 3 March 1992. The letter states:

*"I am disappointed that both you and the Chancellor have reservations about publishing the booklet **I have had prepared and printed** setting out the details of the Government's expenditure and revenue in Scotland. I judge that it is just what is needed at present in our campaign to maintain the initiative and undermine the other parties. This initiative could score against all of them".*

This leaves no doubts about the motivation behind the publication of an analysis that could most generously be described as being at an early stage of development. The publication of later versions in October 1995 and 1996 were more comprehensive although some of the methodology is questionable, but that debate is not central to the concerns of this paper and are detailed elsewhere.[7] Of greater concern is that the results of that exercise were presented by Ministers as evidence that Scotland was subsidised by London. Mr Steven's contention that the detail of the analysis or the presentation of it would be unchanged regardless of the politicians in control reflects a surprising naïveté about the nature and conduct of Government. To allege that to suggest otherwise is a 'puerile slur' on the integrity of government officials is simply wrong.[8] Extending the logic of Mr Steven's argument would leave him in the position of having to present the same allegation to the current Prime Minister and other Cabinet Ministers. They after all have claimed consistently that Government unemployment statistics are "fiddled". The dispute in both instances is not with the Government officials but with the Ministers responsible.

Extending the Official (GERS) Methodology Over Time

The importance of the publication of the revised version of GERS in October 1996 is that it provided the starting point for the argument that Scotland contributed a £27 billion absolute surplus of revenue over expenditure to the London Treasury over the period from 1979 to 1995. The methodology used is therefore the official Scottish Office methodology. The SNP dispute the methodology but it was accepted as a starting point as this was the only way that the then Chief Secretary to the Treasury (William Waldegrave) would agree to answer any Parliamentary Question (PQ) on the issue.

The October 1996 GERS publication found that Scotland's share of the UK fiscal deficit (General Government Borrowing Requirement - GGBR) in 1994/95 was 17.1 per cent[9] compared to a population share of 8.8 per cent.

The PQ from Alex Salmond MP[10] asked the Chief Secretary to apply this share to the published UK GGBR over the entire period in question. This was done but the percentage used was actually 17.9 per cent. This reflected a downward revision to the UK fiscal deficit (the denominator) for 1994/5. This revision was not (as should reasonably have been done) applied to the corresponding Scottish figure, which after all is a constituent part of the UK figure. That this was not done is a quite extraordinary example of the ease with which 'official' data can be misleadingly presented, although in this case the impact was marginal to the end argument.

However, this did enable a profile of the Scottish GGBR to be estimated over a period for which there were largely no published official data for Scotland. To this was then added the Scottish share of privatisation proceeds and North Sea revenues, in line with Treasury convention. This stage is of course not disputed by Mr Stevens. This left an absolute surplus of revenue over expenditure over the period for Scotland of £27 billion (at 1996/7 prices).

The Relative Position and the UK Structural Deficit

It is worth noting that this compared to a UK deficit, based on the GERS analysis, over the same period of just under £480 billion. Thus if Scotland was in no better or no worse a fiscal situation than the UK, on the basis of the GERS analysis, Scotland would have had a deficit over the period of £42 billion[11]. Thus the extent to which the Scottish public finances were relatively stronger is the difference between this figure and the actual surplus of £27 billion, producing a relative surplus of just under £70 billion.

In other words, if Scotland had been independent in 1979 and mirrored the fiscal policies of the UK (and crucially therefore the same borrowing profile) then at the end of the period the Scottish exchequer would be £70 billion better-off than if Scotland had a position precisely in line with the UK. The £27 billion absolute surplus argument is therefore only the minimum statement of the strength of the Scottish position over that period.

Far from Mr Steven's claims that this approach is unwarranted, there is thus no doubt that if one is assessing the fiscal position that Scotland would inherit on the starting blocks of independence, in order to judge whether it would be better or worse off, it is absolutely vital to examine the relative position. Interestingly this point was agreed on by The Economist newspaper's review of the issue in 1996[12].

In constructing the budget for the forthcoming 4 financial years, the SNP took as the starting point, the current planned Government fiscal policy profile. Crucially this includes the planned 4 year profile of Scotland's share of the UK's planned borrowing (and therefore debt) position. For this reason it was necessary to examine the relative position. It is Mr Steven's derision of this approach that is therefore unwarranted. This approach after all is what Mr Stevens implies when he refers to an alleged Scottish 'structural' fiscal deficit compared to the UK. In doing so he confuses the definition of 'structural' fiscal deficit with that of the relative position. This problem is sourced to the fact that no where does he define what a 'structural' fiscal deficit is.

His implication that it occurs when one economy is in deficit when another is in surplus is not sensible. That being the case every country in Europe bar Luxembourg would arguably suffer a 'structural' fiscal deficit (by Mr Steven's approach) when compared to Luxembourg. A more reasonable starting point, adopted more conventionally, would be that a country has experienced a 'structural' fiscal deficit when it records a deficit through the full course of one or a number of economic cycles[13]. Moreover, this calculation should perhaps more usefully be performed excluding such items as debt interest payments and privatisation proceeds to examine the underlying fiscal structure.

Given this, what is clear is that many European Union countries have been in a 'structural' fiscal deficit over the last decade and beyond. Indeed the UK was in consistent and massive 'structural' deficit throughout the 1980s and 1990s and remains so at present. Indeed in 15 of the 17 years analysed in the Treasury answer the UK is in deficit compared to 6 of 17 years in Scotland's case.

The implications of the £27 billion absolute surplus

That Mr Stevens now accepts the accuracy of a £27 billion Scottish absolute surplus over the period stated is welcome[14]. However his subsequent conclusions are contradictory to his acceptance of its accuracy.

Given the erratic behaviour of the Scottish share of the UK GGBR it is of course probable that in any one year the share will not be the same as the 17.9 per cent that the Treasury applied to reach the £27 billion conclusion. Indeed it is for this reason Mr Stevens and other politicians and commentators derided the accuracy of the figure in the early part of 1997. The assumption of a trend share of 17.9

per cent was variously described as, *'outrageous'* (Michael Forsyth), *'ludicrous'* (Andrew Neil), *'heroic'* (Henry McLeish) and *'flawed'* (PIEDA).

However, these quotes were made in advance of a second Treasury Parliamentary answer, recorded on the last day of the last Parliament.[15] This asked the Treasury Chief Secretary to produce the actual Scottish share of the UK GGBR for each year from 1979 to 1995 using the same methodology published in the official GERS analysis for 1994/95. Again it must be stressed that this is a disputed methodology.

This found a share which did indeed vary from year to year, but in an inconsistent and indeed contradictory fashion. Table 1 illustrates the UK GGBR for each year and the Treasury estimate of the Scottish share (excluding North Sea revenues and privatisation proceeds).

When the implied Scottish GGBR was then calculated it was clear that the £27 billion was if anything an underestimate of the strength of the Scottish position as the absolute surplus was - on Government assumptions - £31 billion. This is because while in four of the years in question (a minority) the actual share was higher than the trend share, this was in each case a higher share of a smaller UK figure. These years therefore had a lower weighted effect on the trend result.

The line of attack on the independence case was therefore forced to change although the tone remained extravagant and scornful. Those who had previously argued that the £27 billion was absurd because the application of a trend share of the UK deficit of 17.9 per cent was flawed were proved wrong by the second Treasury answer. However, these same people then poured the same scorn on the argument that, as it was proven correct about the past, would it not - in the absence of any other consistent evidence - be perfectly reasonable to assume that it might be a fair estimator of the future position.

What is clear is that there is margin for error in all these official estimates. They vary radically and inconsistently. For example, as table 1 shows, the published Scottish share of the UK deficit of £48 billion in 1994/95 was over 17 per cent. The published share of a £27 billion UK deficit in 1981/82 was 12 per cent.[16] This seems to directly contradict Mr Steven's' assertion that the Scottish share will consistently rise when the UK deficit falls.

Testing Mr Steven's Method

It is also possible to test Mr Steven's own method of estimating future Scottish GGBR by applying it over the period since 1979 for which official Treasury estimates of the Scottish GGBR were provided in the second parliamentary answer referred to above, the results of which (a £31 billion Scottish absolute surplus), Mr Steven's fully accepts.

Table 2 sets this out. Mr Steven's method is to assume a Scottish share of UK revenue of 8.9 per cent and a share of UK expenditure of 10.25 per cent.

Mr Steven's calculation is provided for each year in columns 2 and 4. To this Mr Steven's then adds the Scottish share of privatisation proceeds and North Sea revenues thus providing the Scottish GGBR. This is done in columns 6 and 7. Column 7 therefore provides the estimate of Scottish GGBR in each year since 1979 on Mr Steven's methodology. Column 8 provides the actual GGBR as published in the Treasury answer noted above. This concludes a Scottish absolute surplus of £31 billion over the period, compared to £10.6 billion using the Mr Steven's approach. Column 9 provides the error in Mr Steven's method for each year. What is apparent is that Mr Steven's method consistently underestimates the strength of the Scottish position and this is proved using official data.

The available empirical evidence therefore directly contradicts Mr Steven's' assertions. Mr Steven's claims that the SNP procedure is less satisfactory than his own is therefore proved quite dramatically wrong.

What then is the most reasonable approach to take to estimating the future position? On the basis of published Treasury evidence the only approach that has been proved broadly correct over any substantial period is the approach the SNP took of applying the same trend share that was proved by the Treasury to be a more than reasonable estimator of the past.

At worst this approach is subject to the vagaries of any estimator of public expenditure,[17] at best it is the most reasonable assumption, substantiated by empirical evidence. What the approach certainly does not merit is the extravagant derision employed by Mr Stevens that is more suitable for the saloon bar than the lecture hall.

The Economic Implications of North Sea Revenues

Mr Stevens alleges that the £27 billion surplus only arises because of high oil revenues in 3 years in the mid-1980s. This ignores the fact (noted above) that Scotland was in absolute surplus in 11 of the 17 years in question (not 3 as he implies) or, that the UK was in deficit in 15 of the 17 years.

Where he is correct is in noting that the oil revenues of the mid 1980s were exceptionally high. He notes that we will 'never see their likes again' which may be true but that is due more to the effect of the political stability of the Middle East on oil prices than Scottish oil production which remains healthy. Moreover, his analysis stresses the exceptionally low revenues of recent years while ignoring that Inland Revenue projections suggest that North Sea revenues will be substantially higher in coming years. Indeed in the 6 years to 2002 the Inland Revenue forecasts revenues of £22 billion compared to less than £10 billion in the 6 years preceding that period. Chart 1 illustrates the strength of North Sea revenues in the 4 years of concern for the SNP budget, in contrast to the years chosen for the GERS analysis.

This is important. If, as the GERS analysis suggests, excluding North Sea revenues, Scotland has a trend share of the UK deficit of around 17 per cent, then North Sea revenues require to be sufficiently healthy to make up the balance They were over the period of 1979 to 1995 and are likely to be in the coming 5 years. Again it must be stressed that all of this is based on the official and disputed GERS analysis.

The Burden of Plenty?

Where it becomes impossible to find merit in Mr Steven's case is when he effectively argues that the windfall of North Sea oil would have been a burden on the economic well-being of an independent Scotland. The basis of this case is that it would have led to a soaring Scottish currency which would have rendered Scottish exports uncompetitive thereby reducing domestic output.

Mr Steven's argument ignores of course that over the period Scottish exporters were subject to the vagaries of the capital flow (not trade flow) denominated value of Sterling. Moreover it ignores the obvious policy response to any 'petro-boost' to the value of the currency which would be significant reductions in interest rates which themselves would boost Scottish investment providing a healthy environment for long term growth. Similarly an outflow of funds resulting from a rising currency could be managed by external investment that took advantage of the strength of the currency to purchase foreign assets which themselves could return a long-term income stream. It also ignores the spectacular impact of the £100 billion tax revenues to an economy the size of Scotland.

The Empirical Evidence

Again looking to empirical evidence rather than assertion, Europe's other oil fired economy Norway does not seemed to have suffered the economic hardship Mr Stevens suggests. Indeed, from a position of GNP per head that was virtually identical to the UK in 1979 Norway has moved to a position where its GNP per head was 22 per cent higher than the UK by 1994.

Similarly, the experience of the Norwegian currency over the period directly refutes Mr Steven's assertions as Chart 2 illustrates.

What is clear is that over the period while the two currencies follow broadly similar trends, it is Sterling that performs more erratically and is more liable to marked appreciation than the Krone. Moreover as noted above, over this period, the growth of the Norwegian economy has outpaced the UK by 22 per cent.

Mr Steven's contention that the windfall of plenty from the North Sea would have been an economic burden can therefore be demonstrated to be analytically flawed and empirically disproved.

Analysing the SNP Budget

Mr Steven's main comment on the SNP programme itself is to assert that the estimated impact on Scottish growth is a 'triumph of assertion over analysis'. He then goes on to assert a 'neutral growth' scenario without providing any analytical substantiation beyond the statement that most economists are of the view that Scottish growth would be slower. He quotes only one (albeit highly respected) economist, Professor Anton Muscatelli. In contrast, 10 academics of similar stature including 6 professional economists and 2 economic historians expressed contrary views as recently as April 29 1997.[18]

Had Mr Stevens attempted to model the growth impact of the programme there is no question that such a fiscal boost would have produced substantial and positive economic impacts. The analysis that was commissioned by the SNP was undertaken by the Mackay Consultants model of the Scottish economy. The results produced by any model will of course vary but the direction should be broadly similar. In fact, the additional growth projected over the period was relatively modest at an average of 0.4 percentage points above the rate projected without the implementation of the programme.[19] This modest yearly increase would provide substantial long term benefits however although these are not critical to the budget's viability.

This brings us finally to the budget itself.[20] Any examination of the detail of what is proposed would conclude that the programme allows a substantial margin for error in any of the estimates used. This is only prudent given the fact that the estimates are based on Government projections shown to be erratic in previous years. The additional expenditure averages £1.5 billion per year which is less than 40 per cent of the value of North Sea revenues in the current financial year. The projected additional income at Government disposal from a range of sources, averages £2.7 billion per year. That is a margin for error of 80 per cent. The budget plans for the residual to be used to begin repayment of the inherited Scottish share of the UK national debt.

Conclusion - Still Stuck on the Starting Blocks

Mr Steven's article is a welcome comment but contains unsustainable arguments couched in pejorative language. It is clear that far from being 'unwarranted' the analysis of the relative fiscal position is central to the assessment of the fiscal policy options that would be inherited by an independent Scotland. The methodology adopted in the SNP budget has been demonstrated to have been a more accurate estimator of Scotland's GGBR than Mr Steven's alternative. It has also been proven by Treasury data to have been a remarkably accurate estimator of the past position. The contention that the windfall of North Sea oil would be a burden on an independent economy has been shown to be analytically incorrect and empirical evidence has supported this. Moreover, the modelled growth impact of the SNP budget has been shown to be both reasonable and uncritical to the sustainability of the programme, which contains substantial margins for error.

Unfortunately Mr Stevens has little to say about the economic merits of the programme set out in the SNP budget itself. More positively however a consensus has been reached about the strength of Scotland's past position. It is to be hoped that the debate can now move to more fruitful discussions about the future. As noted at the outset it is the question of the dynamics of the economics of independence and the policy options before Scotland that would be more constructive.

As Scotland enters an exciting period in its political and economic development what is required is a considered and constructive academic contribution to the debates about Scotland's economic future. This discussion needs to get off the starting blocks and onto the more substantial issues about what sort of country Scotland must be to meet the economic challenges of the next century. We must put aside negative and partial analyses and consider questions such as why, 100 years ago, Scotland was the most successful and enterprising economy in the world; why it has been in consistent relative decline since and what can be done to reverse this position? Given the historical pedigree, Scotland's economists must surely have a tremendous contribution to make.

ENDNOTES

1. MacCormick,N: The Scottish Debate, OUP 1970.

2. Counting the Benefits of Independence, Mackay Consultants October 1995. This found that the location of a Parliament, Government offices, foreign diplomatic interests and all the associated lobbying and private sector activity that is attracted would have a significant and positive economic effect, which it is possible to estimate. It is interesting that a similar argument is currently being developed with respect to the more modest activity that would arise from a devolved assembly. Similarly, the Institute of Welsh Affairs will shortly publish an analysis of the economic impact of a Welsh Assembly which will examine the impact of the location of government on income and wealth distribution. It would be informative to continue this line of research with respect to Scotland.

3. Mackay, D (ed): Scotland 1980, The Economics of Self Government. Q Press, 1977

4. It is worth noting here for the record that the author of the article to which this forms a reply, Mr Jim Stevens, is a member of the National Executive Committee of the Scottish Labour Party.

5. Mackay (1977), p3.

6. *SNP's Fiscal Fantasy Bonanza*, Letter to Editor, Herald, 8 April 1997 (Jim Stevens, Chief Forecaster, FAI).

   SNP Offers a 'fantasy fiscal bonanza', Letter to Editor, Scotsman, 8 April 1997 (Jim Stevens, Chief Forecaster, FAI).

   Four year fabrication of £18bn, Letter to Editor, Herald, 23 April 1997(Jim Stevens, Glengarnock Co-op).

   'Fiscal fantasy' of SNP budget, Letter to Editor, Scotsman, 23 April 1997 (Jim Stevens, Glengarnock).

7. The most recent source of an alternative analysis is Scotland Pays Her Way, SNP September 1996.

8. It is worth noting that both the current author and the leader of the SNP are former Government Economic Service officials and therefore in a reasonable position to judge the matter.

9. This analysis curiously excludes North Sea revenues and privatisation proceeds which of course had to be included at a later stage to obtain a more comprehensive estimate of the actual fiscal position. Their inclusion is in line with the Treasury convention as confirmed in a minute of 15 January 1997 from a Treasury official to the SNP.

10. Hansard 13 January 1997 HMT Ref 2-0307

11. Similarly in 1994/5 the year to which the 1996 GERS report found a Scottish deficit of £8.1 billion, the UK deficit was £48 billion. Thus if Scotland was no different from the UK it would have had a deficit of £4.2 billion, thus the relative position for that year, on the GERS analysis was a relative deficit of £4 billion, half the alleged subsidy. Moreover when the share of North Sea revenues and privatisation proceeds is added, the deficit is further and substantially reduced and this is in a year of historically low North Sea revenues and before any debate about the GERS methodology begins.

12. *Misty - The Cost of Scotland*, Economist 26 October 1996.

13. At this stage it should also be noted that to title such a deficit 'structural' can be misleading. It is due less to the structure of the economy than to the fiscal policy choices of Government. At the very least it is a combination of the two.

14. *Economist Concedes SNP Budget Claim*, Scotsman 29 March 1997.

15. Hansard 21 March 1997, HMT Ref: 1657N 96/97.

16. Hansard 21 March 1997, HMT Ref: 1657N 96/97

17. Government estimates of many aspects of expenditure and revenue have proved subject to radical change. Indeed the 1995 GERS analysis (which looked at year 1993/4) was revised 1 year later by £0.5 billion (6.1%). Moreover, in the course of PQ answers from the Treasury to SNP MPs on 19 February and 28 March, three separate figures were supplied for the Scottish share of the UK GGBR in 1990/91 ranging from 51% to the 57% that found its way into the final answer

18. *Faith in Scottish Economic Growth*, Letter to Herald Editor, 29 April 1997. It is worth noting that this list was far from exhaustive with many other economists expressing support while being less free to involve themselves publicly in political arguments than Mr Stevens and the current author.

19. It is interesting that the modelled impact noted here is substantially more modest than that suggested in an analysis of an earlier SNP budget commissioned from the Fraser of Allander Institute in 1987, The Economic Impact of the SNP Budget, FAI, 1987.

20. Yes We Can - Win The Best Future For Scotland, The SNP General Election Budget 1997, SNP April 1997.

Table 1: Treasury Estimate of UK GGBR and Scottish Share Using GERS Methodology

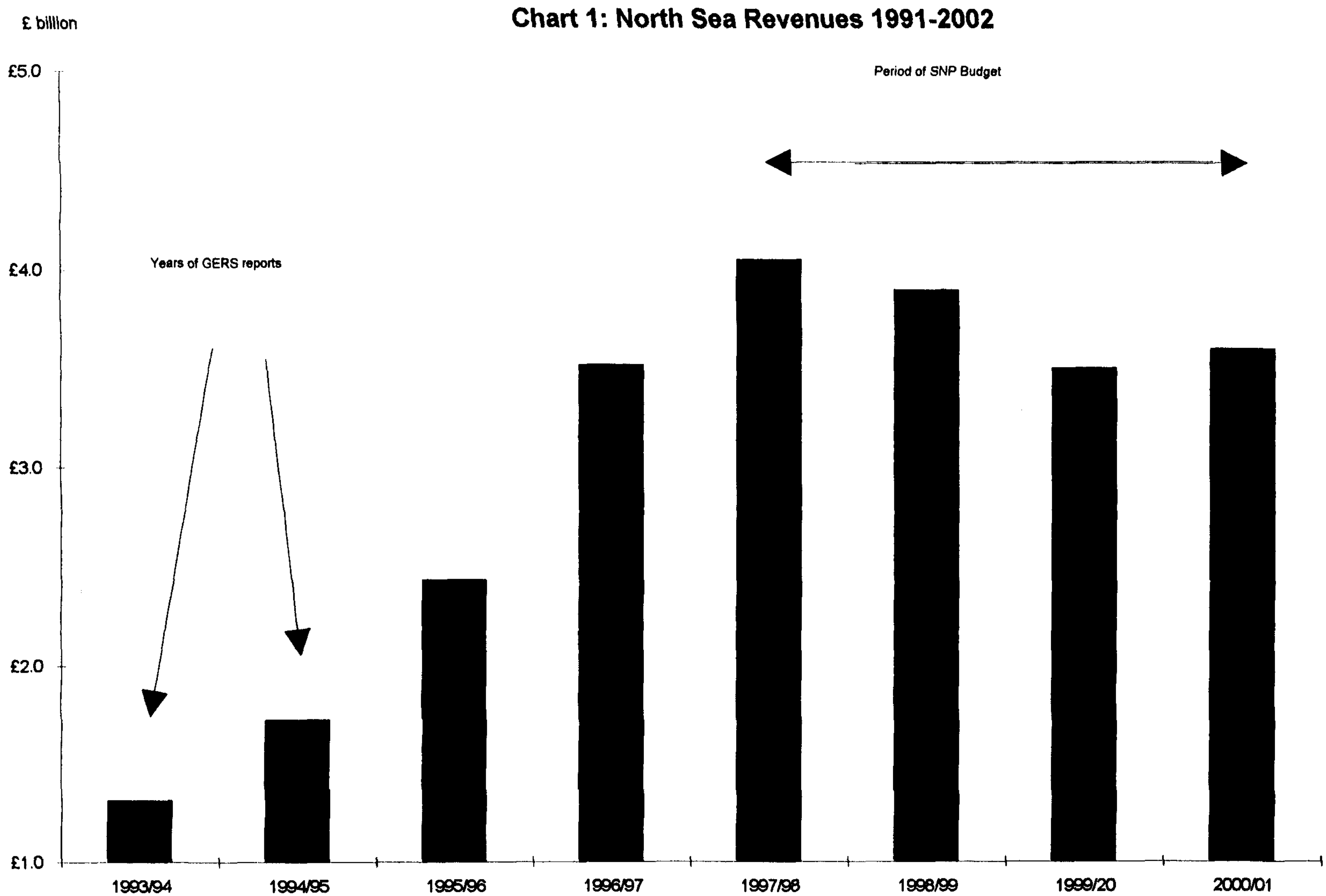
(£ billion) 1996/7 prices	UK deficit excl privatis proceeds and North Sea Revs	% Scottish Share
1979/80	34.7	15%
1980/81	38.9	17%
1981/82	27.4	12%
1982/83	30.1	17%
1983/84	35.8	15%
1984/85	40.1	13%
1985/86	34.1	14%
1986/87	22.3	21%
1987/88	11.7	50%
1988/89	-2.1	no estimate
1989/90	0.0	no estimate
1990/91	8.7	57%
1991/92	26.1	22%
1992/93	52.1	17%
1993/94	57.2	17%
1994/95	48.1	17%
Total	465.3	

Source: Hansard 21 March 1997, HMT Ref: 1657N 96/97

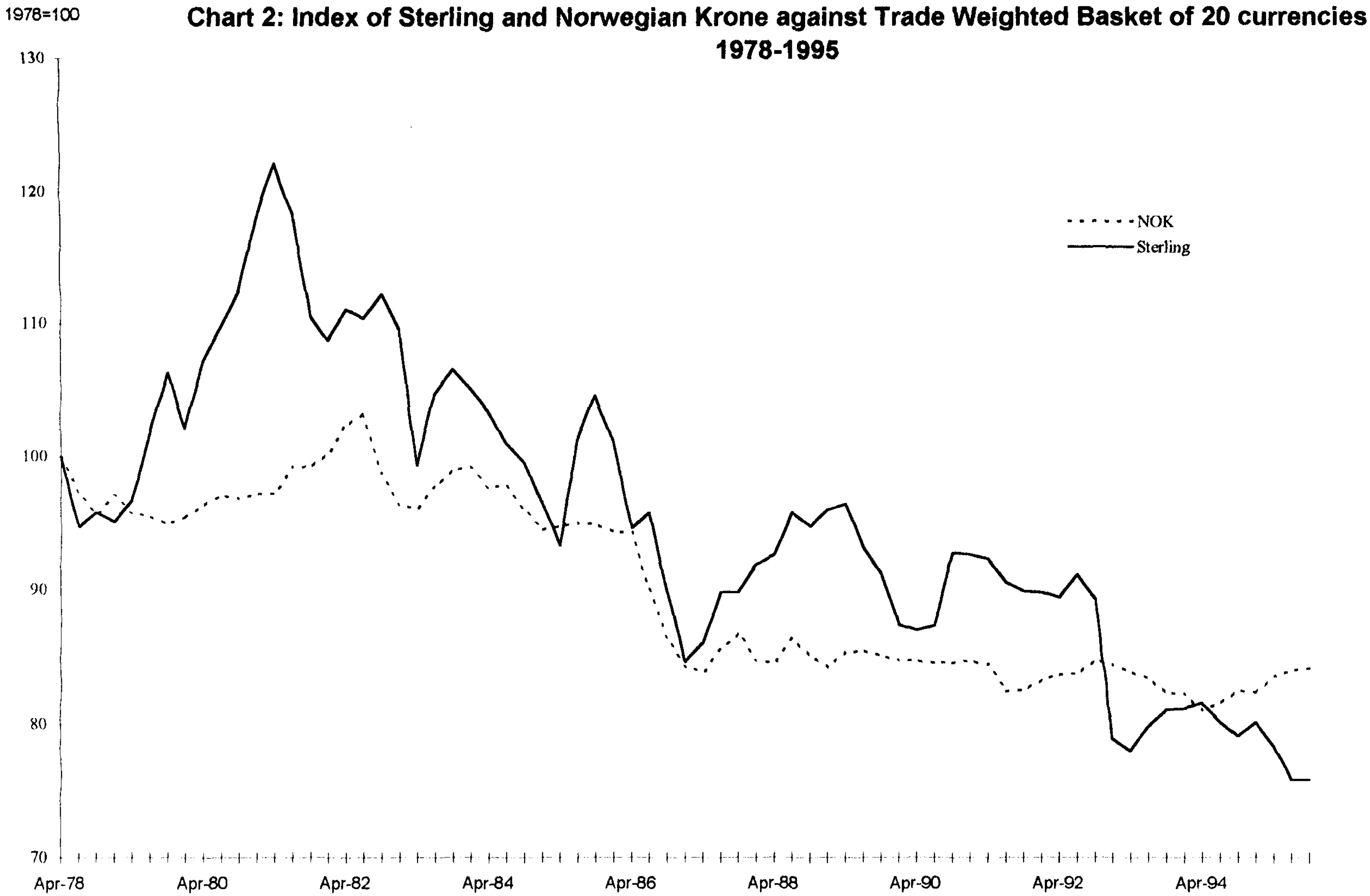
Table 2: Testing Mr Steven's Method Against Published Official Evidence

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
(£ billion) At 1996/7 prices	Total revs less oil	Scottish share at 8.9%	Total expdt less privat. proceeds	Scottish Share at 10.25%	Balance (4-2)	Scottish NS Revs & pps	Scottish GGBR on Steven's Method	Published Treasury Estimates	Steven's error
1979/80	203.3	18.1	237.8	24.4	6.3	4.4	1.9	-0.6	2.5
1980/81	203.1	18.1	242.0	24.8	6.7	6.8	-0.1	-0.9	0.9
1981/82	213.8	19.0	245.3	25.1	6.1	8.5	-2.3	-5.0	2.7
1982/83	217.3	19.3	251.9	25.8	6.5	9.1	-2.6	-4.2	1.5
1983/84	220.1	19.6	256.0	26.2	6.7	14.0	-7.4	-9.1	1.7
1984/85	223.0	19.8	263.2	27.0	7.1	18.6	-11.5	-13.7	2.3
1985/86	229.0	20.4	263.2	27.0	6.6	16.6	-10.0	-12.2	2.2
1986/87	245.5	21.8	267.8	27.4	5.6	7.3	-1.7	-2.8	1.1
1987/88	257.1	22.9	268.8	27.6	4.7	6.8	-2.1	-1.1	-1.0
1988/89	265.7	23.6	263.6	27.0	3.4	4.7	-1.3	-4.8	3.5
1989/90	270.4	24.1	270.3	27.7	3.6	3.2	0.4	-3.3	3.7
1990/91	264.1	23.5	272.8	28.0	4.5	3.1	1.4	1.9	0.5
1991/92	253.9	22.6	280.0	28.7	6.1	1.9	4.2	3.9	-0.3
1992/93	243.5	21.7	295.6	30.3	8.6	2.1	6.6	6.8	0.2
1993/94	244.5	21.8	301.7	30.9	9.2	1.7	7.5	8.0	0.6
1994/95	260.4	23.2	308.6	31.6	8.5	2.1	6.4	6.1	-0.3
Total	3814.7	339.5	4288.6	439.6	100.1	110.7	-10.6	-31.0	-20.3

Source: House of Commons Library, Ref: 97/6/18EP/RJT, SNP Research Department



Source: Inland Revenue, Statistics and Economics Division, 19 Dec 1996



Source: Bank of England, Foreign Exchange Division, 5 June 1997.