Note: This discussion paper contains a response to the critique made by Ashcroft, Christie and Swales (2006) (ACS) of our work on fiscal autonomy for Scotland. It also contains a rejoinder, which is our response to the rejoinder of ACS.
In this paper, we rebut the case that Ashcroft, Christie and Swales (2006) make in favour of the status quo fiscal settlement in Scotland that stems from the Scotland Act 1998. This Act in creating the Scottish Parliament and Executive effectively separated public spending by the Scottish government from the need to raise taxes to finance it; rather, financing comes from Westminster through the Barnett formula. We do not think that these arrangements provide a stable political solution in the UK, as is evidenced by the so-called West Lothian question - a matter that may be becoming of greater concern in England than hitherto. Scotland, therefore, should be forewarned that even if it does not move from the status quo, movement might anyway be forced on it.

That ACS (2006) speak quite highly of our ideas on fiscal federalism in Scotland (Hallwood and MacDonald (2005) and MacDonald and Hallwood (2004), suggests to us that they too accept that the present fiscal arrangements are not necessarily at a stable equilibrium. We find it strange, therefore, that they so vigorously defend the present system, especially the Barnett formula component of it. Their case for Barnett is that it offers a hard budget constraint that effectively disciplines the Scottish public sector. We will show that this belief in Barnett is based on a serious misconception of its economic consequences. Despite the fact that Barnett sets an upper limit on public spending by the Scottish Executive it is by no means a hard budget constraint. Indeed, so poor is its fiscal discipline on the Executive that it is better described as a formula for a "Rake’s Progress".

The Ashcroft, Christie and Swales case for Barnett
Ashcroft, Christie and Swales (2006) provide a table in which they compare the characteristics of the Barnett formula system for financing devolved Scottish Executive spending with that of fiscal autonomy of the type that we proposed in MacDonald and Hallwood (2006). According to them, like fiscal autonomy, the Barnett formula offers a hard budget constraint and is efficient at handling the split of resources between the Scottish public and private sectors. They say "no attempt is made in this table to indicate the degree or extent to which each characteristic is present in each system". However, they do say that:

"The present Barnett based system already exhibits many of the characteristics required to encourage the efficient use of resources and allow a democratically disciplined Scottish Parliament to make optimal allocation decisions."
We take it that they mean 'optimal decisions' it in the same way as we do in our 2004, 2005 and 2006 papers. That is, that they think that the use of the Barnett formula promotes equalisation of net benefits within the present structure of public spending, between current Scottish public and private spending and also across time.

ACS correctly imply that the focus of our criticisms of Barnett is that it acts as a soft budget constraint on Scottish public spending, resulting in non-optimal resource allocation. But they claim that:

"There would appear to be little between the two systems [Barnett versus fiscal autonomy] in the hardness of the budget constraint".

This claim is wildly inaccurate. To understand why, economic analysis needs to be applied to the matter.

*Why Barnett does not work as a mechanism for fiscal discipline*

Begin by writing $G - T$ as Scotland's budget deficit with Westminster, where $G$ is the Scottish Executive's spending and $T$ is taxes collected in Scotland.\(^1\) Now consider how a Scottish budget deficit, if there is one, is financed. Write $F$ as Barnett transfers to Scotland and $X$ as taxes raised in Scotland but sent to Westminster and so the difference between $F$ and $X$ is the counterpart to a Scottish budget deficit. Thus, if $F$ exceeds $X$ Scotland is a net recipient of public funds from Westminster.\(^2\)

Thus,

$$G - T = F - X \tag{1}$$

This implies that a Scottish budget deficit is financed by net financial transfers into Scotland from Westminster.

It is in the nature of the present Scottish fiscal system that $F$ is fixed through the Barnett formula. It is also true, approximately at least, that the Executive spends the whole of the Barnett grant. Thus, $G = F = \text{by an amount set by the formula}$. That $G$ and $F$ are fixed is recognised in equation (2) by putting an asterisk after them:

$$G^* - T = F^* - X \tag{2}$$

The implication of equation (2) for given $G^*$ and $F^*$ is that if taxes, $T$, collected in Scotland happen to fall, to balance the equation, taxes raised in Scotland and sent to Westminster, $X$, must fall too. Under present fiscal arrangements this will happen automatically as income taxes, VAT and some other taxes (but not council tax) collected in Scotland are indeed sent to Westminster.\(^3\)

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\(^1\) If $G - T < 0$ there is a Scottish budget surplus with Westminster, of which more later.

\(^2\) We are aware that there are provisions for emergency borrowing by the Executive from Westminster, but as ACS leave this out of their account so will we.

\(^3\) The same reasoning applies even in Scotland is running a budget surplus with Westminster, $G - T < 0$. The equality (2) must continue to hold. A fall in Scottish tax collections also causes a fall in the amount of taxes sent to Westminster.
With this background it is easy to see why the Barnett formula is a soft budget constraint. Any fall in taxes collected in Scotland is offset by reduced tax transfers to Westminster. In other words, Scottish budget deficits (G - T) are self-financing. The Executive can maintain the level of government spending, G, regardless of what is happening to the level of taxes raised in Scotland.

By concentrating only on F* - the Barnett transfer to Scotland - ACS misled themselves into thinking that this alone constitutes a hard budget constraint. However, the hardness or otherwise of a budget constraint must also consider the responsibility that a government has for raising the money it spends. Barnett does not impose this responsibility; indeed, it allows the Scottish Executive and Parliament to be shot of it.

The Executive does not have to be concerned with pithy fiscal matters such as matching taxes with spending.4

Nor does it have to be concerned for reasons of fiscal discipline with introducing fiscal policies to raises the Scottish tax base by promoting economic growth.

Nor, if taxes raised in Scotland fall does the Executive have to worry about balancing its budget by cutting the level of public spending.

Nor does it have to risk the wrath of voters by raising tax rates (rather than cutting its spending).

Nor, even, does the Executive have to think about increasing its borrowing by issuing tradable securities against future tax revenues.

Indeed, none of these tough decisions have to be made by the Scottish Executive and it is for this reason that they are most unlikely to worry about the balance of public and private spending in Scotland, or, intertemporal matters such as growing the Scottish economy.5

Indeed, with the Barnett formula, if the Executive wanted to worry about any of these things it would be a matter of choice and not of fiscal discipline as imposed by the present fiscal system. Of course, the Executive could decide to think about tough issues such as what policies it might adopt to raise the Scottish tax base; and if it wanted to it could think about whether the level of its spending is justified relative to the level of taxes raised in Scotland. But these are matters that governments with real hard budget constraints have to think about and have to take unpleasant measures to deal with, but not

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4 Usually this is stated in terms of matching "over the course of a business cycle".
5 It is true that though, as we have argued in our other papers, that in principle the Scottish Executive and Parliament should be able to get the balance between different types of public spending right.
the Scottish Executive. It is free of such tough decision-making; like the woman who won the lottery, all it has to worry about is how to spend it!

The closest analogy that we can think of to the present fiscal settlement is if a rich Laird gave his son a generous allowance. He links this allowance to an obscure formula that over time basically makes little or no difference to the size of the allowance. He also tells his son that he would like him to earn some money on his own account and to hand it over to him when he gets it. Furthermore, part of the deal is that however much each year the son hands back to the Laird the generous pocket money will always be paid. Anybody can see that this is a formula for a rake's progress. The boy will reason that with the allowance secure 'why bother working to improve myself?' On this point, an inspection of William Hogarth's depiction of the *Rake's Progress* is rewarding- in a series of eight pictures from stalwart young man to years later residence in bedlam; an 'economic bedlam' in our depiction of the present fiscal system.

*High oil prices*

What if Scottish tax revenues increased, due to a rise in oil prices? Many in Scotland see this as a bedlam of a different kind because the increased tax revenues are presently passed directly to Westminster. It is the UK treasury that benefits while Scottish government spending remains constrained by Barnett. Nor can the extra oil revenues be used to cut Scottish taxes - in the unlikely event that Scottish Labour would ever think along those lines. Scotland would benefit from lower taxes only to the extent that the UK government used increased tax revenues to cut taxes across the UK as a whole.

*Budget constraints under variants of fiscal devolution are more effective than under Barnett*

It is of course true, as we argued in Hallwood and MacDonald (2005) and MacDonald and Hallwood (2004, 2006), that variants of fiscal devolution offer harder budget constraints than the Barnett formula. Here we consider two variants: fiscal federalism and fiscal autonomy.

*Fiscal federalism*

For the fiscal federalist position, write:

\[
G - T = \Delta D + F_{FF}^* - X_{FF}
\]

where \(F_{FF}^*\) - transfers from Westminster to Scotland under some formula to be worked out - is fixed but, presumably, lower than \(F^*\) as \(X_{FF}\) (tax transfers from Scotland to England with fiscal federalism) is lower than \(X\) given that with fiscal federalism Scotland would be retaining some of the taxes raised in the country instead of sending them all to Westminster. For example, with fiscal federalism Scotland might retain 40% of the income taxes it raises, sending the other 60% to Westminster.

With fiscal federalism, if taxes raised in Scotland fall, the right hand side of equation (3) must increase also, but *not by an equal automatic reduction in taxes sent to England* as is the case with the Barnett formula because only 60% of income taxes are sent to
Westminster. To finance a larger Scottish budget deficit, the Executive would have to issue debt - so $\Delta D$ increases. As the financial markets effectively set limits on $\Delta D$, the Executive must now be concerned for the levels of both $G$ and $T$ - it faces hard decisions over its tax policies and level of government spending.

**Fiscal autonomy**
The budget constraint with fiscal autonomy is tougher still and is written as:

$$G - T = \Delta D$$  \hspace{1cm} (4)

The terms $F^{*FF} - X_{FF}$ drop out as fiscal transfers from and to Westminster would cease under fiscal autonomy.\(^6\) All fiscal cushioning would be removed and the Executive would be on its own managing its fiscal affairs. While ACS (2006) lament this state of affairs it is in fact the actual situation faced by many countries the same size as Scotland and smaller. The potential time inconsistency of the budget constraint under a fiscal federal settlement, is one of the key reasons why we now prefer a fiscally devolved settlement for Scotland based on fiscal autonomy.

**Equity issues**
ACS (2006) say that in making our case for fiscal autonomy we marginalize equity-in-the-Union considerations. Although we would not necessarily put it this way, to some extent we have. But there is another way to look at their concern. As Scottish-sourced taxes vary over time, especially with oil prices, the Scottish budget deficit, $G - T$, probably varies from negative to positive and back again. In effect, either England is sending 'aid' to Scotland or Scotland is sending 'aid' to England. The SNP has recently argued on the basis of the attribution of all oil revenues to Scotland, that Scotland subsidises the rest of the UK to the tune of £853 per capita. However, unionist parties, such as the Conservative and Labour parties and recent comments in the English press, have argued that Scotland obtains generous transfers from the rest of the UK, allowing per capita public spending in Scotland to be higher than in England, and far higher in comparison with some English regions. If one accepts the latter argument, it would clearly be a mistake to think that the Barnett formula is not at risk. In other words, the so-called 'equity' that ACS treasure so highly might well be disappearing anyway. And the same goes for the First Minister, Jack McConnell, who is quoted as saying that fiscal autonomy would only mean lower government spending or higher taxes - but absent access to high oil revenues he might well be facing that scenario anyway.

**Incentive effects**
ACS essentially avoid the important issue of the incentivising effects of tax changes on private sector behaviour, stressing the potential costs of moving to a more devolved fiscal system. For example, they indicate that 'the Scottish Parliament can increase or decrease its budget through increasing or decreasing the standard rate of income tax.' However, the rate of variation allowed is small and we believe would do little to produce incentives for the existing labour force nor be sufficient to reverse the persistent outflow of talented

\(^6\) We have not split $\Delta D$ into issue of marketable debt and issue of money.
labour from Scotland evidenced over the years. And it is only income tax the Scottish Parliament can currently change. Changes in corporation taxes and other taxes, such as VAT, seem to have had powerful incentive effects in other countries, but the Scottish parliament currently has no power over them.

Cuts in corporation tax are often seen as part of ’a race to the bottom' and they indeed could be used in that way if they were used to invest in the production of goods and services which could be produced more competitively elsewhere (i.e with lower wage costs). However, rather than using tax changes to engage in such a race, they could be used in sophisticated ways to reinforce and bolster Scotland's existing strengths. For example, Scotland has world renowned judicial and educational systems and an important financial sector built on the existence of a well-qualified work force and well-defined property rights. Why shouldn't Scotland aspire to be the leading Financial sector in the world (with the sector based in the Glasgow- Edinburgh hub)? Other countries - Switzerland and Luxembourg, for example, have so aspired and have made dramatic inroads in this regard (for example, the authorities in Luxembourg have skilfully manipulated their VAT system vis-à-vis the rest of Europe to build an important financial services sector and a very prosperous economy).

ACS emphasise the down side, or costs, of the ability to have freedom over tax raising powers. One is the potential spillover effects - in terms of labour and capital movements – of having tax rates which are quite different to our near neighbour. For two roughly equally sized economies, such spillovers are likely to be of considerable concern, but for a small open economy, such as Scotland, vis-à-vis its much larger neighbour, the negative spillovers for the neighbour are likely to be small while the positive advantages for Scotland are likely to be highly significant. Indeed, and as we alluded to above, it can be argued that the current system has had detrimental spillover effects for Scotland in terms of north-south labour movements. Again, Luxembourg seems to be a good example of a small open economy that has created negative spillovers for its much larger near neighbours, but not incurred their wrath.

ACS are correct to note that a move to more fiscal devolution for Scotland would mean moving away from the insurance function offered by the current system to one which is much more uncertain, relying on the vagaries of the price of oil. However, and as we noted in our previous paper, there are methods of smoothing oil revenues and the Norwegian model seems to offer an excellent example of this.

So we would counter the claim of ACS that a move to system in Scotland which is much more reliant on the devolution of taxes is one in which efficiency considerations are privileged whilst equity and stabilisation issues are marginalised. There is no reason why equity issues need be abandoned with fiscal autonomy, although the way they are achieved under the new system would clearly be different to that in the current system. Indeed, it would seem to us that in their support for the Barnet formula, ACS privilege the equity aspect of a fiscal settlement at the expense of the efficiency aspect. As we stressed in our previous paper, stabilisation issues can be addressed in a fiscally devolved
system and there are examples of this from the experiences of other countries, which have a greater degree of fiscal devolution than the UK.

Empirical matters
ACS cast doubt on the empirical evidence that tax independence can promote economic growth. They argue that 'Hallwood and MacDonald now assert that the empirical evidence indicates that increased fiscal decentralisation is favourable to economic growth. They did not adopt such a straightforward view in their previous work'. However, much of the empirical evidence that we refer to in MacDonald and Hallwood (2006) simply was not available to us at the time of writing Hallwood and MacDonald (2005) and MacDonald and Hallwood (2004) and we simply reiterate that our reading of this more recent empirical evidence is that it does indeed indicate that increased fiscal devolution is growth promoting. For example, papers by Lin and Liu (2000), Akai and Sakata (2002), Stansel (2005) and Iimi (2005) find a clear and statistically significant positive relationship between fiscal devolution and economic growth. For instance, Stansel (2005) uses a new data set comprising 314 US metropolitan areas to show that there is a positive and highly significant relationship between fiscal decentralisation and economic growth: a one standard deviation increase in decentralization produces a 2.5 per cent increase in per capita income growth.

As we argued in MacDonald and Hallwood (2006), another way of approaching the fiscal devolution - growth link is to assess if a lower tax burden and smaller public sector would stimulate economic growth in Scotland, an issue which we have seen is of great importance from a theoretical perspective. Recently published work by Lee and Gordon (2005) using cross-section data for 70 countries over the period 1970 to 1997 suggests that lower rates of corporation tax contribute to faster rates of economic growth. In particular, after controlling for other growth inducing factors, lowering corporate tax rates by ten-percent can increase the growth rate of real GDP by between one- and two-percent per year. Lee and Gordon (2005) also address the well-known lack of systematic relationship between tax burdens and rates of economic growth. They suggest that high rates of economic growth can lead to higher tax burdens due to the need to build infrastructure, and that this can confound a null hypothesis of an inverse relationship between tax burdens and economic growth rates.

Conclusions
We think that by defending the Barnett formula so strongly, with essentially no criticisms of it at all, that ACS (2006) are simply making a case for the status quo. They are quite clear as to why they do so:

"If anything Hallwood and MacDonald's proposals are likely to increase the pressure on Scottish MPs at Westminster".

Indeed, we too think that this would be the case. The West Lothian question would become even more poignant than it is now. However, one has to wonder whether the
status quo fiscal-cum-Barnett settlement is a stable political equilibrium for the UK? It is implicit in our earlier papers that we think that it is not. The tone of ACS is that they too rather support fiscal federalism though not fiscal autonomy, so perhaps they too have some doubts as to the permanence of the current Scottish fiscal situation. So why defend it?

The Scotland Act of 1998 created the absurdity of separating public spending from taxation. One has to wonder for how many more years are Scotland and the rest of the UK to labour under this failing fiscal mechanism. We think that some institutional response will inevitably be applied to address this important asymmetry, and we have offered two such - fiscal federalism and fiscal autonomy. Other fiscal mechanisms no doubt could be invented, but whether they, whatever they are, can handle the West Lothian question with less strain on the UK as a unitary state, remains to be seen. While ACS (2006) are doubtless well meaning in their defence of the \textit{status quo} - a rear guard action to 'save' the Union, not as it existed from the Act of Union to 1998, but as the Labour Party with its huge Parliamentary majorities created it, they will likely be disappointed.

Nobody, of course, can foresee the future, but if we were to take a long view of how the 'fiscal anomaly' is to be addressed where would we place our bets? With the Scottish Liberal-Democrats and their Steel Commission supporting fiscal federalism, the new leader of the Conservative Party saying that Scotland can have fiscal autonomy if it wants it, as well as the Scottish Nationalists being in favour of any tax devolution, it has to be recognised that the idea has political legs. Presumably if this rising tide in favour of tax devolution is not turned back, the West Lothian question will come even more to the fore. Judging by what is being said in the English press and the Conservative Party Westminster may move to restrict the voting rights of Scottish MPs, just as English MPs are restricted on voting on so many Scottish spending matters. So although something close to the fiscal autonomy position may well be possible within the current UK set up (and case C 88/03 of the Court of Justice of the European Communities would seem to offer support for this), one really does have to wonder whether the Constitutional settlement of 1998 is a political equilibrium for the UK. If it is not, if the ultimate equilibrium is not to be Scottish independence, then perhaps reversion to two sovereign parliaments under one crown will be the solution.

In sum, we argue that the current fiscal settlement for Scotland is no longer politically tenable, nor is it defensible in terms of the economics of designing an appropriate fiscal settlement for Scotland. In terms of the latter, the current Barnett settlement offers essentially no route for the public and private sectors to be incentivised in terms of tax changes and it has at its core a soft budget constraint. The latter means that the public/private sector balance in Scotland is unlikely to be optimal. We therefore propose that some form of fiscal devolution must be introduced, and introduced soon, to address these

\footnote{Indeed, in our Fraser of Allander paper we thank Brian Ashcroft for helpful comments, and we don't recall him ever making a case against fiscal federalism.}
issues and to enable the Scottish parliament to discharge its democratic function. We argue here, and in our previous work, that some of the advantages of fiscal devolution are available in a fiscal federal system. However, we believe that incentives for both politicians and the private sector are at there clearest under fiscal autonomy, a system of fiscal devolution which focuses on the devolution of a substantial proportion – perhaps all - of the tax base (rather than the assignment of a substantial proportion of taxes) and has at its heart a hard budget constraint. In closing, we note one of the exquisite ironies of the Labour party's position on increased fiscal devolution for Scotland. In considering the case for entry into the Euro area, Labour (UK) argued strongly that a key criterion for the UK joining the euro area was that there had to be sufficient flexibility in the operation of fiscal policy (in order to be able to counter the effects of a one-size-fits all monetary policy), and we support that argument here. However, both Labour (UK) and Labour (Scotland) seem determined to prevent Scotland from having the same flexibility in the use of its fiscal policy, despite the fact that it is also part of a one-size-fits all monetary union.
References


MacDonald, R. and Hallwood, P. (2006), ”The Case for Fiscal Autonomy with or without Independence", Policy Institute, Edinburgh. (http://www.policyinstitute.info/AllPDFs/MacDonaldApr06.pdf)

In this short article we defend our paper 'A restatement of the case for Scottish Fiscal Autonomy' against the rejoinder of Ashcroft, Christie and Swales (ACS), published in the October 2006 issue of the Fraser of Allander Quarterly Economic Commentary.

In our work we have offered serious economic analysis of the current fiscal settlement in Scotland, concluding that it poorly serves the long term economic interests of the people of Scotland. In doing this economic analysis we take the attitude of 'let the chips fall where they will'. Like it or not, in our analytic view a Scottish parliament that spends but does not tax is an economic absurdity. That the Conservatives and Lib-Dems, let alone the Nationalists, in their policy statements on tax devolution are leaning the same way, suggests that they are thinking along the same lines.

ACS in their rejoinder plainly ignore our economic analysis but offer no credible economic analysis of their own. Rather they blow smoke, filling their paper with inaccuracies about our work making blatant political points.

We address six further points here.

First, our article is about the economics of fiscal devolution and we did not accuse ACS of a 'politically motivated defense of the Barnett formula' (though some in the national press did make this very point). Nor is there anything in our work that would support the following points raised by ACS.

Second, ACS again claim that Barnett is a hard budget constraint. Equations 1 to 4 of our paper show this is nonsense and the simple arithmetic/algebra speaks for itself. We are unaware that Barnett has a 'no bail out facility' and the fact that ACS state that Barnett has 'no scope for borrowing' shows their paucity of understanding what a hard budget constraint actually is - the ability to borrow and be disciplined by capital markets is at the heart of a hard budget constraint. In layman's terms a hard budget constraint means you earn what you spend. Can any right thinking person ascribe this to Barnett?

Third, Luxembourg in fact offers an extremely good example of the benefits to Scotland of fiscal autonomy. This is a country at the heart of one of the world’s largest agglomerations of industry and commerce in the world and does not suffer from the disadvantages of being on the periphery of Europe, but like Scotland has to accept a one size fits all monetary policy and the macroeconomic implications of its much larger neighbours. However, it, nonetheless, finds it necessary to have access to variation in all of its tax raising capacity and has used these to great advantage.
Fourth, in contrast to what ACS claim, we do not 'opt instead for independence'. Nobody can point to where we said that - because we haven't.

Fifth, they claim the benefits of Barnett are 'an automatic macroeconomic stabilisation level and a public expenditure per capita substantially above the UK average'. The former benefit can also be achieved under some form of fiscal autonomy and the latter 'benefit' is a contention and not a fact.

Sixth, they question the empirical evidence we have reported in favour of fiscal devolution. Such evidence is published in leading scientific journals, with independent refereeing processes. If ACS wish to challenge such, then we look forward to their results being published in such journals. Until they are, we will accept the extant empirical evidence instead of the conjectures of ACS.

In our work we have made clear the distinction between full fiscal autonomy (which is synonymous with political independence) and fiscal autonomy which can exist without political independence and exists in other parts of the world – Spain is an example.

What we do not observe in other parts of the world is a country with its own democratically elected parliament, which is part of a one-size-fits all monetary union, and relies almost exclusively on a block grant for its funding with little, or no, scope to alter taxes. The economic and political absurdity of this position is clear to us and we believe a growing number of people who are prepared to put economic analysis before rigidly fixed political positions.