The economics of Scottish independence in an interdependent world¹

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Scots will vote for, or against, independence from the rest of the UK on 18 September 2014. Although ostensibly the vote is a straight yes/no question, in reality there are three possible outcomes: yes, no, and a negotiated increase in local autonomy in economic policy affairs – as Prime Minister Cameron, and the current and past leaders of the Labour and Liberal Democrat parties, have made clear in recent statements of future policy.

Faced with the need to create an economic policy framework from scratch ("going from 0 to 60 in 18 months"), we have to start by creating a policy system that ensures the economy's financing requirements, as represented in the basic macroeconomic accounting identity:

$$S - I = (G - T) + (X - M)$$

[S=savings, I=investment, G=public spending, T=government revenues, and X-M the current account balance], are always met. That is to say, any economy must have a policy framework with the capacity to manage its three fundamental imbalances: the private financing (savings-investment) gap, the fiscal (public spending-revenues) gap, and the foreign financing (trade) gap. This then implies we need to set policies for financial regulation, for sustainable fiscal rules, and for a currency/monetary policy choice respectively.

Scotland as a newly independent economy, or as an economy with a large degree of fiscal autonomy (or as a devolved economy within the meaning of the 2012 Scotland Act due to come into force in 2015-16), will be no exception.

Previous studies on this theme have only analysed particular sections of the Scottish economy in isolation, not recognising their interplay with other

sectors in her economy, and without tracing their impact on the rest of the UK (rUK). The formal paper which underlies this note is therefore the first, and perhaps only one, to examine a framework that recognises the links and interactions between the financing gaps; while at the same time analysing the impact and effects of independence, be they advantageous or disadvantageous for rUK.

A formal analytic framework

The first point to make is that a formal academic analysis exposes the fact that the UK and Scottish governments are engaged in a set of parallel and overlapping policy games, formalised here as strategic mathematical games. A parallel game is where the same opponents play against each other at the same time in more than one arena: in this case, in the political and economic arenas. An overlapping game, by contrast, is where each player is engaged in a game against different opponents, and where the strategies pursued in one game limit the strategies available in another. In this case, this is an economic game where the UK and Scottish governments play against each other, but also against firms in the private sector. It obviously impinges directly on the parallel economic and political games.

The solution of these games then shows how the threat points – that is the best outcomes that each player could expect to achieve for themselves without cooperating, accommodating or otherwise making concessions to the other player – would alter from their status quo ante position. To illustrate, the currency choice question poses a significant dilemma for both governments, although the outcomes for Scotland in the absence of cooperation, concessions or formal currency union would show a considerable improvement of her current (status quo) position; whereas rUK would inevitably suffer worse economic outcomes.

To see this one has only to realise that the UK government can actually do nothing to prevent

¹ This article is based on a paper, with the same title, presented to the Royal Economic Society in Manchester on 8 April 2014. An abbreviated version is available from the author on request.

Scotland taking the pound if she wishes,² any more than the US government could do anything to stop people in Ecuador, Argentina (or Scotland) using the US dollar; or those in Montenegro or Scotland using the euro if they choose to do so. All the rUK can do is deny Scotland any participation or influence over policy in the Bank of England. But that is just to reproduce the current position for Scotland. Nothing would change for Scottish monetary policy if London were to refuse to share sterling and monetary policy, since it doesn't share them now. Given independence, or indeed fiscal autonomy, the only difference would be that Scotland gets to add tax powers to the existing monetary set up. She would therefore be unambiguously better off: more policy instruments to serve the same targets – instruments that can now be designed to fit Scotland's specific needs, rather than the UK average.

The 'cost' would be no Scottish input to monetary policy which is to leave things as they are. Moreover, since Scotland would have at most one vote in ten in forming monetary policy in a full currency union, blocking that option would have no practical effect – except in those rare situations where Scotland turned out to be a swing vote.

Hence Scotland would necessarily be better off than under the status quo (the same monetary conditions, better fiscal outcomes); and no worse off, on average, than under the full currency union proposal.

But rUK would definitely be worse off; no better off since monetary policy would be set in exactly the same way as now, but worse off to the extent Scotland uses her new tax powers to her own advantage rather than rUK's; and also because rUK would lose tax revenues making her existing *net* public debt and deficit positions worse (section three below).

Financial regulation, liquidity access and resolution funds

The difficulty with a *unilateral* adoption of sterling would be the loss of access to liquidity, and the absence of financial regulation for Scottish financial firms. However Scotland could "opt-in" into the EU banking union, giving her financial sector easier access to liquidity via both the Euro or Sterling markets, and to a wider pool of resolution funds for everything else. The threat point of the economic

game has again shifted, with consequences for the political game because to block monetary cooperation would start to make a political or fiscal union look more risky and less attractive for firms within rUK.

Facing a tight general election in 2015, it is hard to believe that the UK government would in fact choose to deny a currency union when the consequences would be to make their own constituency worse off, while Scotland was made better off. People don't usually voluntarily choose to shoot themselves in the foot. Confusion on this point is probably the reason why conflicting messages are coming out of the Prime Minister's office and from George Osborne as to whether a currency union would be negotiable or ruled out. After the referendum, there will be no incentive for either side not to agree a currency union as long as effective fiscal controls are put in place on both sides to restrain the growth in public debt. Since, by all measures, the Scottish fiscal position will be stronger (a smaller or zero public debt ratio, and a small budget surplus when national accounts are restructured to reflect the changed flows of taxes raised and public spending under independence: section three below) this would not be hard to arrange.

It would be harder to persuade the UK government whose fiscal position will be weaker, and therefore more of a threat to a small economy like Scotland than Scotland is to rUK, to do the same. Sterling without currency union may therefore be a risky option for Scotland *unless* it is combined with an opt-in to the EU's regulatory and banking union with formal ECB backing, as in Denmark (also not a euro member). On the other hand, faced with uncertainty and mixed messages from the UK government, and deeper liquidity markets, wider rescue funds and a more developed regulatory/banking union system, some banks or financial firms may feel safer and better catered for if they move north.

A corollary is that the financial sectors in rUK and Scotland have quite different structures. This will not affect the banks much since under the UK's own legislation, and under EU legislation and Basel III, will force them to be reincorporated locally by activity levels. But the non-bank financial sector (insurance, pensions, asset management) is three times larger by employment than in rUK. So it matters how that sector is supervised, regulated and what funds are available for rescue or liquidity support. At present the UK is using its old default legislation for this sector; but the EU banking union is currently designing a new regulatory system for non-bank financial services. It would pay Scottish financial firms in this sector to get in on the ground floor to ensure the system is designed in a way that suits them. They cannot do this as long as the UK

² To take one example of the currency options open to Scotland [a currency board; a new national currency with a fixed or pegged exchange rate, or a floating exchange rate; adopt a third part currency; peg to a basket of external currencies]. To use the example of a unilateral adoption of sterling is necessary to establish the status quo threat point; it does not necessarily imply that this would be the best option short of full monetary union.

stands outside the EU regulatory system, and at present they don't have direct representation in that part of the EU system of greatest importance to them.

Section three: Fiscal imbalances

The link to fiscal deficits and public debt is now obvious. Under independence or fiscal autonomy, the loss of fiscal transfers from London will be more than compensated by the repatriation of tax powers, which implies a restoration of a diversified set of revenues and fully functioning automatic stabilisers – in this case supplemented by an oil fund to stabilise oil and gas revenues – to stabilise the economy. The currency union issue is important here: research on optimal currency areas shows that the bulk of risk sharing in mature currency unions is born by changes in cross-border asset holdings or financing loans.³ Risk sharing is therefore best preserved if a currency union (of either form) is maintained.

Under independence or fiscal autonomy, the fiscal deficit itself, as currently estimated, would have to have oil revenues (still positive, if falling) added to it: plus the repatriated taxes from cross-border commuters, the return of subsidies currently made to rUK pensions, the return or part return of debt interest payments currently made to the UK Treasury, plus the gains from defence restructuring, and a rebate of Scotland's share of the QE assets held at the Bank of England. Taken together, these revenue and spending reallocations that come automatically with independence would imply a small budgetary surplus (around £1bn, or 0.7% of GDP). These are all standard adjustments to the existing budget calculations, but seldom included in the more usually presented estimates which are based on the tax flows and spending rules in the existing union, not a fiscally independent Scotland. As a result those calculations actually show what Scotland might look like under a continuing union, not independence.

There are some more speculative budget savings that come with independence, the most important of which are: a) currently Scotland raises £3bn for defence, but only £1.8bn of that is spent in Scotland. So spending £2.5bn would both save £½bn and increase Scottish defence capacity by 35%. b) Tax collection in Norway and Finland costs 50% less per unit of revenue raised; adopting their procedures could save perhaps £400m. c) Fees for regulation, resolution and deposit insurance in the banking section would fall by £300m. Those savings could increase the surplus by a further £1bn; and all this without policy changes or inventing new taxes.

Public sector debt

The issue of taking a share of the existing UK public debt is resolved by the UK government's acknowledgement that it would responsibility for that since it holds the legal title to it. So Scotland could start with no debt and no debt repayments. The possibility remains that Scotland might agree to assume a share voluntarily, to create a more cooperative start to the currency union/fiscal independence framework, but it is not required. Not to assume any debt would push the UK debt ratio up to 106% on current figures, being the same quantity of debt divided by a 12% smaller GDP level – about the same as Italy's debt at the start of the crisis, but higher than Spain or Cyprus in 2013.

The compromise solution of using Scotland's historical debt figure, obtained by backing out accumulated budget surpluses since 1974 from Scotland's population share of UK debt, would leave Scotland with a debt ratio of 45% or half its population share of overall UK debt.

Credit markets, the role of financial regulation and fiscal rules

This argument provides the link to the credit markets. If the models that exist for predicting risk premia for Scotland are correct, then the absence of a fiscal deficits or material debt levels would lead to interest rates lower in Scotland than rUK after an initial adjustment period. Combined with a clear separation of private from public risk (the banking union being used to resolve the former, a fiscal council the latter), this would in turn lead to lower market rates in Scotland than rUK. Whether this is realistic is yet to be seen; it depends on the supply and demand for financing flows in other sectors and how the effects would spillover onto the fiscal imbalances, also on any possible policy changes on either side of the border. But the combined effects of the new regulatory changes that is, Vickers, UK conduct regulation, the EU's banking union regulation and Basel III, will help by reducing the financial assets under Scotland's supervision to about the level of GDP, while raising those in rUK up to five times rUK GDP.

Fiscal rules and monitoring

The obvious implication of this analysis is that the UK government's reluctance to entertain the idea of a full currency union, even if to do so would make them worse off, has more to do with the fear that Scottish fiscal policies might become over-expansionary and ultimately un-sustainable than the loss of political control per se. This is certainly a logical concern given that the identity at the head of this note applies to any common financial zone; unrestrained expansions of fiscal deficits can

³ Asdrubaldi et al (1996), Kalemli-Ozcan et al (2003), Melitz (2004)

easily, when the underlying debt burdens become difficult to finance, spillover into disruptions, higher interest rates, and liquidity stops/capital reversals in the markets for private and foreign capital – and ultimately to default in any of those markets. This may require, so the story goes, bailout funds from the UK tax payer to stabilise those markets, re-establish liquidity flows and credit, while creating an attendant incentive for fiscal policy makers to free-ride.

While true, it is important to note that: a) this argument cuts both ways, the UK with weaker fiscal balances could just as easily disrupt the markets as Scotland but to larger effect; and b) that a unilateral adoption of sterling would remove any moral (as opposed to self-interested) obligation to bail out or restrain Scotland's fiscal behaviour, it does not rule out or reduce the chances of disruptions or liquidity shortages. A better way to go is to impose a set of fiscal rules, demonstrably and credibly enforceable, overseen by an independent fiscal commission acting as both monitor and fiscal regulator of last resort ("chapter 11" administrator) to create a separation between public and private sector financing risks. At this point, the Scottish government appears to be more receptive to these ideas than the UK government.

Requirements: we need rules to provide a link between target values and the final objectives (ensuring long term sustainable debt, but with short term flexibility to absorb shocks); and then mechanisms to relate any deviations to corrections. Thus effective monitoring, effective enforcement with credible punishment mechanisms must be seen to be in place.

Options for the design of fiscal rules:

- Balanced budget rules, incl. the EU's fiscal compact: nominal or structural
- Debt rules, incl. debt targeting (which then implies a primary surplus budget rule)*
- Expenditure rules
- Revenue rules
- Golden rule of deficit financing*
- Independent monitoring (to avoid moral hazard); the rules need to be forward looking
- Effective enforcement; credible sanctions (they need to be ex-ante, not ex-post)

These rules are needed to limit the *difference* between two fiscal aggregates; not the size, composition, or use of specific expenditures or taxes.

Scotland proposes to use the starred (*) rules. The UK has used similar types of rules in the past, but no longer does so. Balanced budget rules/the fiscal compact are not recommended as they are neither necessary nor sufficient for maintaining sustainable debt ratios (Checherita et al 2014), and because it is not possible to calculate structural

deficits reliably in real time as needed for the policy making process (Hughes Hallett et al 2012). Expenditure or revenue rules, although popular in some quarters, have been widely criticised for being counterproductive; and because by operating on one side of the fiscal imbalance they tend to damage the other side, thus exacerbating the original problem; and because they may miss the source of the problem if the other financing imbalances are driving the problem (DeLong and Summers 2012, Corsetti 2012, Alessandrini et al 2014, respectively).

An independent fiscal policy commission

Such a commission must a) review the fiscal outlook for the government and public sector, especially for future tax revenues and public spending; b) estimate the current and future *structural* imbalances, and public debt in particular; and c) estimate the consequences of current spending and taxation plans for economic performance; d) give advice on how to correct any imbalances.

These reviews should involve forward-looking monitoring not, as now, backward looking.

The FPC will have no executive authority; it may not engage in policy advocacy; it must restrict its analysis to be within the targets and priorities set by elected government.

It must be independent, politically, physically; and in its use of models, forecasts, personnel and information. It may choose to exercise a wider remit, covering the other targets of policy, alternative policies, lower cost options etc. It will also monitor the regulating of private sector and foreign financing gaps/debt to the extent that they affect fiscal imbalances.

The prospective Scottish Fiscal Commission will have these features; the UK's OBR only parts of them.

Regulation, banking union and the separation principle

As things stand, private sector monitoring and resolution of banks will be undertaken by the UK's banking union and financial stability system. But in the future this may transfer to the EU's Banking Union and the ECB's supervision system, if Scotland chooses to opt-in.

Public sector monitoring will be conducted by the Scottish Fiscal Commission; with any resolution activities through the UK's resolution mechanism and the IMF, domestic reserves, Scotland's own

stabilisation and savings fund; or through the EU's banking union and resolution mechanism (as appropriate)

These two arms of the regulation and resolution process involve two independent actors; and thus implies the separation of private from public risk:

- a. Private resolution will be discretionary under the relevant banking union; currently the national regulators with the local incorporation of subsidiaries as required by the EU systemic risk board, Vickers, UK conduct regulation, parts of Basel III, and the UK Banking Reform Act of 2013. That implies a jointly owned, funded and operated EU-wide or UK rescue vehicle for private sector.
- b. Public bail-outs are not allowed. A graduated debt protocol and "chapter 11" process under Scottish Fiscal Commission or IMF administration instead.

The idea here is to cut the links between private and public imbalances in a way that has not yet been achieved in the Eurozone. The fiscal commission can reduce public imbalances, but is not able to act on the private ones. The financial regulation and supervision system as part of the relevant banking union, inclusive of its discretionary resolution mechanism, is set up to deal with the private imbalances. This discussion however, necessarily leaves open whether, in the event, it will be the UK banking union or the EU banking union that applies.

Conclusion

We conclude that, as the Standard and Poor's ratings assessment recognises, independence presents "significant but not unsurpassable" changes and risks, but on *both* sides of the argument. They see the main problem for Scotland to be access to external financing for her banks and her financial sector. They do not see fiscal deficits or a currency union to be a problem – and this article explains why. That view conflicts with the Moody's assessment which sticks closer to the UK government line, that there will be few material changes to the flow of revenues and spending – though it is not clear why since independence would, of necessity, mean a redrawing of national accounts and the monetary and financial regulation arrangements.

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