

The potential implications of independence for businesses in Scotland

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Executive summary

On 18 September, the people of Scotland will decide whether or not to dissolve their political union with the United Kingdom, formed in 1707. Their decision may rest on questions of identity. But it will also be determined by the Scottish people's perceptions of the more tangible implications of independence.

The impact that independence would have on businesses in Scotland – as the vehicles by which a newly independent Scotland would hope to prosper – is therefore a critical aspect of the debate, and one that has recently begun to feature in the public discourse. This report, commissioned by The Weir Group following publication of the Scottish government's White Paper, Scotland's Future, seeks to encourage that debate. It explicitly addresses the question: what would independence mean for businesses in Scotland? In doing so we focus on the consequences of independence for businesses in Scotland across four specific areas: the currency choice; corporation tax; trade; and private pensions.

Independence would clearly bring control over policymaking closer to the people of Scotland. It would allow a Scottish government to tailor an expanded range of economic policy levers to the needs and circumstances of the Scottish economy, as well as the distinctive views and values of the Scottish people. A lower rate of corporation tax (CT), for example, forms a central plank of the Scottish government's proposals to support a competitive business environment. And the government is planning to make a more focused effort to promote Scottish business in international export markets, along with measures to support small businesses.

However, the Scottish government's estimate that lower CT will generate 27,000 jobs is probably over-optimistic in a context where other countries, including the UK, are also reducing their CT rates. Moreover, fiscal realities will likely constrain the policy choices of an independent Scotland. Some sectors may gain – for example, British Airways has suggested that the aviation industry may be a beneficiary of lower air passenger duties in an independent Scotland. But with lower prospective revenues from the North Sea, and a population growing less rapidly and ageing faster than the rest of the UK (rUK), an independent Scotland is likely to **need to tax Scottish business overall more heavily than if it remained in the UK.**

Debate rages about whether rUK would agree to a sterling union with Scotland after any "Yes" vote. But whatever the eventual currency regime that is established – including the alternatives of unilaterally adopting sterling; introducing a new Scottish currency pegged to sterling; or creating a new, free-floating Scottish currency – **Scottish business is also likely to face higher funding costs** post-independence. Yields on Scottish government debt are likely to be higher than UK yields because the new government will lack a borrowing track-record, the market for its debt will be thin, and its fiscal position is likely to be more vulnerable, especially given the size of the Scottish banking sector. While large corporates may be able to diversify their sources of funding and borrow from outside Scotland, higher sovereign yields are likely to translate into higher funding costs for Scottish banks. And that in turn is likely to translate to higher borrowing costs for small and

An independent Scotland is likely to need to tax Scottish business overall more heavily than if it remained in the UK.

medium-sized enterprises (SMEs) and households. In fiscal terms, any of the available currency options would likely bring with them significant constraints for Scottish public spending.

Business may also be subject to additional transition and transaction costs if the rejection of a sterling union by the three main UK political parties means Scotland has to adopt its own currency after independence. Evidence from the adoption of the euro suggests that such a changeover is manageable but would nevertheless carry substantial one-off costs for business, amounting to around £800 million. It would also impose on-going transaction costs on Scottish businesses and households of around £500 million per year, and potentially create additional uncertainty if the dependence of the Scottish economy on both oil and gas and the financial sector led to a more volatile exchange rate.

Since it is the Scottish government's intention, we assume that an independent Scotland would be admitted to the European Union. In practice there is some uncertainty over whether, and on what timeframe, Scotland would join the bloc. In our view it would be in rUK's economic interest to do everything possible to facilitate Scottish accession, but there are inevitable uncertainties about the stance rUK would ultimately take. Moreover there is no guarantee of the views of the other 27 member states, whose unanimous agreement would be required for Scottish membership to proceed. If Scotland did successfully apply to join the EU, that would ensure continued free trade with rUK and other EU partners. However, **the introduction of a new border could still have a number of negative impacts on Scottish exports**, especially since 70% of Scottish non-oil exports go to rUK, accounting for nearly a third of overall Scottish GDP.

For some businesses, most notably in financial services, their customers in rUK are likely to have a strong preference to buy from domestic providers (for example, to take advantage of government protection schemes). As a result, there would be substantial pressure for those businesses to relocate the related operations out of Scotland to retain existing clients and to ensure future growth. For example in its recent Annual Report, Standard Life stated that "...we have started work to establish additional registered companies to operate outside Scotland, into which we could transfer parts of our operations if it was necessary to do so. This is a precautionary measure to ensure continuity of our businesses' competitive position and to protect the interests of our stakeholders." Scottish companies may also be less well-placed to compete for some public procurement contracts in rUK.

Finally, **independence would add new complexities to businesses in providing pensions for their employees**. If, as is widely expected, an independent Scotland suffers higher yields on its sovereign debt, there could be a reduction in the pension deficits of Scottish defined benefit schemes – a windfall for Scottish businesses. However, for schemes that operate across the whole of the UK, EU cross-border rules could require faster elimination of deficits than is currently planned. The costs this implies could have important consequences for businesses and their employees. Independence would also introduce a new layer of cost and complexity for businesses with employees on both sides of a new border, dealing with separate regulators and potentially with two different pension protection funds (PPFs). And the separation would create a new risk: a Scottish PPF, lacking the depth of a UK-wide scheme, would also be more easily swamped by a single large pension fund insolvency.

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In conclusion, our research indicates that independence would have far reaching consequences for businesses in Scotland that are not yet fully understood. There remain many unknowns about the nature of an independent Scotland: the policy choices it would (and would be able to) make; the benefits and costs these would imply; and the considerable challenges of the transition process.

For businesses in Scotland, the key benefits of independence lie in the policy flexibilities that it would bring. But it also poses risks and costs to businesses in adapting to the changes implied by independence, as well as costs that flow from the inevitable uncertainty during the transition phase that would follow a “Yes” vote. Many are sceptical that an 18-month timetable for reaching an independence settlement is achievable, given the range of issues and the intricate nature of the process, so it is unclear how damaging such a hiatus would be. Much greater certainty about the real destination of independence on these matters would be needed if the risks and costs are not to hinder new investments, and in some cases cause businesses to consider relocating their activities to a jurisdiction outside Scotland.

Scotland’s economy could succeed under independence, and it would be in rUK’s interests to facilitate that as far as possible. But the end of the Union would create a number of costs and uncertainties, and fewer, more uncertain benefits, for those businesses so vital to Scotland’s future prosperity, as it goes its own way.

1

Introduction

The Scottish government's independence White Paper, *Scotland's Future*, sets out a vision of a transition to independence for Scotland and of policies that could subsequently be implemented. However, with such a broad canvas there are many issues and points of detail on what independence would mean for business that remain unclear or uncertain. Independence would require the development of negotiated settlements over a range of key issues with both the UK government and the European Union (EU). These would include currency and monetary policy, shares of assets and liabilities, and border arrangements.

This report – commissioned by The Weir Group following publication of the independence White Paper – does not try to cover all the issues or all the angles to come to an overall assessment. Rather it focuses on the issues that independence would raise for business in relation to four aspects of economic life: funding costs in an independent Scotland, corporation tax, trade, and business-sponsored pensions.

In setting the scene for any discussion of the business impact of Scottish independence, it is useful to bear in mind the salient economic characteristics of an independent Scotland:

- The country has a high level of trade integration with the rest of the UK (rUK), with 70% of its non-oil exports going to rUK in 2013.
- As an independent country, a large proportion of its output would be accounted for by oil and gas. In recent years the sector's output was equivalent to around a fifth of on-shore Scottish GDP. However, oil and gas production is set to decline, resulting in a reduction of approximately two-thirds in North Sea revenues between 2011-12 and 2016-17, according to official projections.
- Scotland's large banking sector has assets worth 12.5 times the country's GDP – a substantially larger multiple than that faced by Iceland or Ireland, let alone the UK, on the eve of the financial crisis.
- Assuming it accepted its share of UK debt, an independent Scotland would inherit gross debt equivalent to just over 80% of GDP.
- Official projections show Scotland's population growing less rapidly than that of rUK over the next 50 years, while ageing more quickly.

All of these factors will have a bearing on the economic and social development of an independent Scotland and therefore shape both the policies of its government and the business environment. The need to establish new trade agreements, credible monetary policy arrangements, financial stability architecture and fiscal policy levers – such as a new tax system – will also have implications for businesses.

We recognise that there are many linkages among these issues that would come into play on independence. For example, currency arrangements would have an important influence on how independence would influence trade and the issues that Scottish corporate pension schemes would face. Borrowing costs would impact on investment, the affordability of corporate tax reforms and on pension funding costs. The corporate tax regime would help determine the attractiveness of a Scottish location for business, which would in turn be reflected in the trade capabilities of an independent Scotland.

This report focuses on the issues that independence would raise for business in relation to four aspects of economic life.

This paper does not explore those linkages in depth, but begins the process of identifying the issues that individual businesses face in relation to each of the topics and the uncertainties and risks this throws up for business leaders to consider.

The report seeks to draw on the evidence base in relation to each of the topics. This base is often thin or dated, and subject to the caveat that the identified effects might not apply to the circumstances of Scottish independence. However, effects that have been found elsewhere help identify the potential issues that business might face, where businesses might need to devote resources to mitigate downsides and leverage upsides, and to provide the basis for helping shareholders understand the risks (positive and negative) that independence poses.

The analysis is predicated on a number of assumptions for the sake of simplicity. Chief among those are assumptions about EU membership and whether an independent Scotland's would take a population share of the UK national debt.

Since it is the Scottish government's intention, we assume that an independent Scotland would be admitted to the European Union. In practice there is some uncertainty over whether, and on what timeframe, Scotland would join the bloc. In our view it would be in rUK's economic interest to do everything possible to facilitate Scottish accession, but there are inevitable uncertainties about the stance rUK would ultimately take. Moreover there is no guarantee of the views of the other 27 member states, whose unanimous agreement would be required for Scottish membership to proceed.

The Scottish government's leadership has raised the possibility that an independent Scotland may decline to take its share of the UK national debt if the Westminster government were to refuse Scotland a sterling union. Such a move could have serious economic and political repercussions, with important implications for businesses in Scotland. However, both because it does not seem like the most likely outcome and because the impact of such a decision is impossible to quantify, we assume that an independent Scotland would take on a share of the UK national debt.

The rest of this paper is organised as follows:

Chapter 2 considers how independence would impact **funding costs** in an independent Scotland. Funding costs within a nation are determined by a wide range of factors. One of the most important for an independent Scotland will be the currency arrangements that are eventually adopted. At present there is little clarity on what these would be. The UK government, supported by the opposition parties, has ruled out a currency union; the Scottish government continues to argue that this stance would change after a vote for independence. This leaves business with the predicament of planning for a future where there are a range of currency scenarios to consider. For the sake of simplicity we restrict our discussion of government funding costs to a scenario in which a newly independent Scotland takes on a population share of UK national debt. We examine the choices open to an independent Scotland should the vision of monetary union fail to materialise, and the implications this would have for future business funding costs.

Corporation tax is one of the economic levers that the Scottish government believes an independent Scotland could exploit. It proposes to reduce **corporation tax** (CT) by up to three percentage points below the prevailing rUK rate. In Chapter

3 we explore what the evidence tells us about the impact of corporate tax rate changes on businesses. We also identify other factors in relation to CT, such as allowances and reliefs, which might be at least as important as the headline rate in determining the success of CT policies aimed at strengthening the business environment in Scotland.

The introduction of a new international border between rUK and Scotland after independence would likely have implications for **trade** flows. Again exporting businesses in Scotland have little clarity on what a border between Scotland and the rUK might look like. In this case negotiations with the EU could influence the nature of the border, as in the longer term could any withdrawal of the rUK from the EU. In Chapter 4 we examine the drivers of trade flows, the evidence of border impacts on trade, and consider which sectors' exports might be most likely to be affected by the creation of a new border.

Scottish businesses underpin the private **pension** income of both their existing pensioners and their current employees. Independence would have impacts on the funds from which pensions are paid. Chapter 5 considers these impacts, which stem from the currency arrangements and funding costs of an independent Scotland, EU rules on cross-border pension schemes and the loss of administrative economies a new border could imply.

Chapter 6 closes with some concluding remarks. Scotland's economy could succeed under independence and it would be in rUK's interests to see it do so, but there would be significant challenges to overcome and uncertainties to navigate.

2

Currency arrangements, funding costs and their impact on business

Summary

The most important economic policy choice for an independent Scotland would be its monetary arrangements. The choice of currency would have a big impact on government and hence on Scottish businesses. Debate rages about whether rUK would agree to a sterling union with Scotland after any “Yes” vote. But given the strong cross-party rejection of a sterling union from Westminster, it is prudent to examine the alternative options available to Scotland: unilaterally to adopt sterling; to introduce a new Scottish currency pegged to sterling (or the euro); or to create a new, free-floating Scottish currency.

Under a sterling union, Scotland would have a say over the stance of monetary policy at the Bank of England. But with Scotland accounting for less than 10% of UK GDP, that influence would be marginal. Indeed Scotland would effectively cede monetary independence to London in a sterling union almost as much as it would via a credible exchange rate peg, or informal use of sterling – so-called “sterlingisation”. The real alternative for Scotland would be to adopt a free-floating currency, retaining full monetary sovereignty in Edinburgh.

The sterling-linked options and the free-floating currency option would offer a new Scottish government different combinations of advantages and disadvantages. Under the sterling options, the absence of monetary policy control would put substantial pressure on fiscal policy as the main mechanism of adjustment to economic and financial shocks. This would create three related problems. First, Scotland would be losing the greater fiscal stabilisation power offered by the current fiscal union with rUK. Second, the newly independent country would become much more exposed to shocks than it is at present. In an economy where oil and gas output has recently accounted for almost one-fifth of GDP, and banking sector assets amounted to 12.5 times GDP, the fiscal firepower needed to carry out that stabilisation role would be large. Third, given that it would likely start out with public sector gross debt of around 80% of GDP, Scotland would have very limited fiscal headroom to play that role. All of this would raise the cost of borrowing for the Scottish government.

Under a free-floating Scottish pound, some of these problems would disappear. A Scottish central bank would be able to act as lender of last resort to Scottish banks; and monetary sovereignty would allow interest rates to be tailored to Scotland’s needs, easing the pressure on fiscal stabilisation. But with a potentially volatile currency buffeted by large capital flows and changing North Sea prospects, sovereign borrowing costs would likely face a premium. Moreover, investors would be likely to demand higher interest rates to compensate them for trusting in the untested monetary institutions of a newly independent Scotland.

Under any currency arrangement, it seems likely that the government of an independent Scotland would borrow at a substantial premium to the current UK government funding costs – probably in excess of one percentage point according to the best available evidence. This means that taxpayers would have to finance annual interest costs of more than £37.5 million for every £1 billion of government borrowing, compared with the UK’s current cost of £27.5 million.¹

¹ Based on ten-year gilt yields as of 25 February 2014.

There are three channels through which the currency choice will have an impact on Scottish businesses. First, higher government borrowing costs affect monetary conditions in the private sector. The degree to which those higher borrowing costs would affect Scottish businesses and consumers would vary. For large corporates, able to diversify their sources of funding, the rise in borrowing costs would likely be small.

But for banks the knock-on effects could be more substantial. Since the financial crisis in particular, the close relationship between the creditworthiness of sovereigns and their domestic banking systems has meant that a one-percentage-point rise in funding costs for the sovereign can result in bank funding costs increasing by between 0.15 and 0.2 percentage points. For SMEs and retail customers – typically more dependent on bank finance for business loans and mortgages – this will likely have consequences for their cost of borrowing.

The second channel by which the currency choice would have an impact on Scottish businesses would be the fiscal constraints demanded of an independent Scotland. These would be the result either of an explicit currency union agreement or the market discipline needed to keep government borrowing costs under control. The constraints would have important implications for taxation and spending.

As an example, if a new Scottish government sought to reduce public debt to 60% of GDP – in line with the Maastricht convergence criteria – within ten years of independence, it would have to implement around £9 billion of tax rises or spending cuts from 2016/17. This would represent a fiscal tightening of the same order as that already undertaken by the UK government during the 2010 to 2015 parliament.

But even if the Scottish government does not seek to cut its debt ratio to 60% of GDP, its fiscal outlook is much less favourable than that for rUK, reflecting a range of factors including both the prospect of lower North Sea revenues and its more rapidly ageing population. The IFS, for example, projects that an independent Scotland would continue to run primary budget deficits through the rest of this decade, whereas rUK is projected to move to a strong primary surplus of around 2% of GDP. Given the need for a newly independent government to establish its fiscal credibility in order to buttress its currency commitments, it is hard to see how Scottish businesses would avoid either a higher tax burden or growing costs as a result of lower levels of public spending. Taking the more optimistic assumption of no further decline in North Sea oil revenue makes only a marginal difference to this picture.

The third vulnerability for businesses (and their customers) is the transition and transaction costs that would occur if Scotland were to adopt its own currency after independence. One-off transition costs associated with moving to a new currency would affect businesses and consumers in a number of ways, as contracts would have to be redenominated. Evidence from the adoption of the euro suggests that the changeover is manageable but would nevertheless impose considerable costs on business, in the order of £800 million.

If such a new Scottish currency were to float freely, it would also impose ongoing transaction costs on Scottish businesses and potentially create additional uncertainty if the dependence of the Scottish economy on both oil and gas and the financial sector leads to a more volatile exchange rate. While the long-term effects of such a currency barrier on Scottish businesses are difficult to determine, we estimate that the transaction costs for Scottish businesses and households would be around £500 million per year.

Overall on the currency choice, the consequences of independence for Scotland's businesses could be substantially negative. Monetary conditions, funding costs, and transaction costs are only likely to change for the worse under independence.

2.1 Introduction

Scottish independence is a political choice, but arguably its real-world impact would primarily be economic in nature. Perhaps the single biggest economic question that hangs over that choice is what currency and monetary arrangements should an independent Scotland adopt? This choice will, in turn, determine the funding costs – the cost of borrowing for government – in a newly independent Scotland.

While there are many unknowns, this chapter explores that question, on the assumption that a newly independent Scotland would accept a population share of UK government debt. Ultimately we look at what the knock-on effects could be for the businesses and people of Scotland in the form of tighter monetary conditions, higher taxes or lower government spending, and transaction costs for firms.

The single biggest economic question is what currency should an independent Scotland adopt?

In its independence White Paper, *Scotland's Future*, the Scottish government makes clear its intention to remain part of the sterling zone, involving changes to the governance of the Bank of England to allow monetary policy to be set on a “shareholder basis”.² But in recent months, the Governor of the Bank of England, the Chancellor of the Exchequer and the Treasury leads in each of the other two main Westminster parties have all made important interventions in the debate. The message from the politicians has been that rUK would not agree to share sterling because of the economic risks that arrangement would create for the two fiscally independent countries.

Given the doubt around this central question, we therefore begin with an assessment of the full range of currency options Scotland would have. The analysis goes on to characterise the fundamental choice that would face an independent Scotland, and the advantages and disadvantages it would have to weigh up in making it. Finally, we explore the various implications for businesses in Scotland.

2.2 Five currency options

In broad terms an independent Scotland would have five options for its monetary and currency regime. These are:

- 1 To continue to use sterling without any formal agreement with rUK over monetary policy – so-called “sterlingisation”;
- 2 To create a new Scottish currency and peg it to sterling (or the euro);
- 3 To adopt the euro;
- 4 To secure agreement with Westminster for a formal sterling union and shared monetary policy; and
- 5 To set up a new, free-floating Scottish currency – referred to here as the “Scottish pound”.

Economists point out that if a country wants to maintain free movement of capital, it must choose between having control over its own monetary policy or over its exchange rate with trading partners. Where exchange rate stability is desired, the government inevitably cedes monetary policy to another body – whether one in another country (as with a pegged exchange rate or sterlingisation) or a supra-national body (as in a formal currency union).

² *Scotland's Future: your guide to an independent Scotland*, p110.

One way of thinking about the five options, then, is in terms of the degree of monetary independence they imply for a newly independent Scotland. The first two options – sterlingisation and pegging a new Scottish currency to sterling – would mean that Scotland’s monetary policy would be entirely decided by the Bank of England, whose policy stance would be set for rUK alone.³

The third and fourth options – currency union with either sterling or the euro – would in principle offer Scotland some say over monetary policy, perhaps with representation on a reconstituted Monetary Policy Committee at the Bank of England or on the governing council of the ECB respectively. But with an economy representing just under 10% of current UK GDP and around 2% of Eurozone output, Scotland’s influence over the direction of monetary policy in either case would be very marginal. In reality then, under these options, Scotland would cede monetary authority to foreign control in much the same way as the first two options.

The fifth option – a free-floating Scottish currency – by contrast, offers true monetary independence for Scotland. It therefore represents the default option if the costs of giving up monetary policy, under the other options, are deemed to be too great by the Scottish people.

In summary, the key choice for Scotland in its currency decision is whether to seek monetary independence or not. That choice will largely depend on the perceived costs and benefits of the various “constrained monetary policy” options and how that balance compares to the costs and benefits of full monetary independence. In its recent assessment of the likely creditworthiness of an independent Scotland under various currency options, Standard & Poor’s concluded that “the challenge for Scotland to go it alone would be significant, but not unsurpassable”.⁴ In what follows we explore the constrained and full monetary independence options in detail to understand what each would mean for the new government’s cost of borrowing.

2.3 What factors would determine Scotland’s funding costs?

So what would determine government bond prices in an independent Scotland? Commonly cited determinants of government borrowing costs are three types of risk for lenders: liquidity risk, credit risk, and exchange rate risk (encompassing both conventional exchange rate and redenomination risk).

- **Liquidity risk** is an element of the financial risk to holders of assets in which there is a relatively small, and thinly traded, market.⁵ The fact that bondholders in such markets cannot be certain that they will be able to find a buyer when they come to sell constrains their options and therefore raises the interest rate they demand.
- **Credit risk** is a distinct component of the interest rate an independent Scottish government would have to pay on its debt. It is determined by the degree to which bondholders think that they will ultimately get their money back. That in turn depends primarily upon the fiscal position of the government, the level of its debt burden, and the prognosis for the two.

3 Pegging a new Scottish currency to the euro would have similar advantages and disadvantages to pegging to sterling, although Scotland would have less influence over the monetary policy stance, and its currency would vary against that of its main trade partner, rUK.

4 *Key considerations for rating an independent Scotland*, Standard & Poor’s ratings services, February 2014, p 6.

5 Goodhart, C., *The Scottish Financial Structure*, in A. Goudie ed., *Scotland’s Future: the economics of constitutional change*, Dundee University Press (2013), p 141.

A new Scottish government issuing relatively small amounts of debt would see higher funding costs.

- **Exchange rate risk** is a third contributor to a government's cost of borrowing. It arises, most obviously, under a free-floating currency where daily fluctuations in the exchange rate change the value of Scottish assets for foreign investors. But exchange rate risk also remains relevant under a pegged currency and even within monetary union. Lenders may fear that the government may break the peg or (re)introduce its own currency and redenominate existing contracts in the new, less valuable currency. This is effectively the risk that may rise where market participants perceive that the policy measures necessary to sustain the peg or remain in the union are politically impossible to deliver.

Some elements of these risks would inevitably arise if Scotland became independent, raising the new government's borrowing costs above those of the UK under any currency scenario. In particular a new Scottish government, issuing relatively small amounts of debt would see higher funding costs because Scottish debt would be thinly traded compared with UK gilts, raising the possibility that bondholders would not be able to sell those assets when desired. As numerous studies have shown, this imposes a premium on the sovereign debt of countries with smaller debt issues compared to ones with larger pools of assets. Charles Goodhart has estimated that, given the relative size of the likely Scottish sovereign debt market, this form of risk alone would add almost one percentage point to Scottish interest rates compared to rates on UK gilts.

A second unavoidable element of risk associated with lending to a newly independent government under any currency arrangement is its lack of a credit history. Whatever the intentions of a new Scottish government, unlike the continuing UK, it will not have a history of honouring its obligations to creditors. As with consumers lacking a credit history, this will impose a premium on the government's borrowing costs. This issue is reflected in the credit ratings given to new countries. As David Riley of the rating agency Fitch told the Treasury Select Committee in 2012, "I am not aware of a situation where Fitch has assigned a AAA rating on a new sovereign nation. History and track record can be important in terms of building credibility."⁶

So whatever the currency choice, an independent Scottish government will likely start from the position of borrowing at higher rates than the UK government currently does. The choice of currency regime adds extra elements of risk and hence government borrowing costs. For that reason, making an appropriate choice is critical for Scotland's economic prosperity.

One caveat to this is the scenario in which an independent Scotland declined to accept a population share of the UK's national debt. In recent debates about the prospects for a sterling union, the Scottish government's leadership has raised this as a possibility. The economic impact of such a move is uncertain and would depend in large part on how would-be creditors viewed such a decision. Some, such as HM Treasury, have argued that such a move would damage the creditworthiness of the newly independent government, and therefore increase borrowing costs for the Scottish government and hence the private sector.⁷ Indeed, such a move would not do anything to strengthen investors' confidence in newly empowered Scottish institutions.

⁶ *Scottish independence: Currency union blow for SNP*, The Scotsman, 18 December 2013.

⁷ "Salmond reassures Scots over currency and EU after recent attacks", *Financial Times*, 18 February 2014.

How much damage would be done is unclear, since Scotland would not be defaulting on its debts for conventional economic reasons. Further, starting out debt-free would give the new government substantial fiscal room for manoeuvre, improving its fiscal position and hence strengthening its creditworthiness. The net effect of these dynamics is hard to determine.

However, the political consequences of Scotland not accepting a share of UK debt could be just as damaging as any rise in borrowing costs. A break-away region refusing to accept a share of national debt would set a troubling international precedent for many countries. That could have repercussions for Scotland's efforts to accede to various international agreements and institutions, such as the EU.

2.4 Risk premium under constrained monetary policy: Scotland and sterling

Three of the four “constrained” monetary options for Scotland – referred to here as the “sterling options” – involve leaving most, or all, policy control with rUK, through the Bank of England. Here we leave to one side the prospect of euro membership for Scotland for two reasons. First, an independent Scotland's high debt levels would be well above the Maastricht convergence criteria for Eurozone membership for many years after 2016. Second, a new Scottish currency would have to be established and then successfully pegged to the euro for a period of two years via membership of the Exchange Rate Mechanism (ERM II) before membership became possible. We therefore focus only on the sterling options in the discussion below, although many of the same arguments would apply to euro membership.

Whether under a sterling union, a sterling peg or sterlingisation, Scotland would have little or no influence to tailor monetary policy to its own needs.

So apart from the liquidity risk premium, what is it about the sterling options that could affect sovereign funding costs for Scotland? There are three contributing elements:

- the extent to which the economic benefits of the currency union outweigh the loss of monetary policy as a stabilisation tool;
- the implications of the absence of a Scottish central bank for financial stability; and
- the implications of the separation of the fiscal and monetary authorities.

We discuss each in turn to understand the implications for funding costs.

2.4.1 Would some form of ‘sterling zone’ constitute an ‘optimum currency area’?⁸

As discussed above, whether under a sterling union, a sterling peg or sterlingisation, Scotland would have little or no influence to tailor monetary policy to its own needs. A major benefit of the sterling options would be that they avoid imposing transaction costs – and minimise exchange rate risk – for Scottish firms and households dealing with others in rUK. Minimising or eliminating the currency barrier between Scotland and rUK has both immediate cost saving benefits (see below) and numerous dynamic effects over time. These include nurturing competition across the entire currency zone and facilitating easy price comparison for consumers. Over time these things would improve the productivity of Scottish

⁸ Mundell, R., A Theory of Optimum Currency Area, American Economic Review, Vol. 51, No.54 (1961), p.657-665.

firms. For a relatively small country like Scotland, cross-border trade inevitably represents a bigger proportion of national output than it would in a larger country. For Scotland, for whom 70% of non-oil exports and 74% of imports come from the rest of the UK, such benefits would clearly be significant.⁹

On the other hand, the costs of the sterling options would stem from the imposition of monetary policy less appropriately attuned for an independent Scottish economy than if policy were solely in the hands of an Edinburgh central bank. Under these currency options, no exchange rate would exist to cushion economic shocks – such as a jump in the oil price that causes inflationary pressure, or a slump in whisky export demand – leaving the burden of adjustment to fall on fiscal policy. After a negative economic shock, Scottish tax receipts would fall and benefit payments would increase by more than would be necessary if Scotland had access to monetary policy as a stabilisation tool. Under the Union, the cost of that fiscal stabilisation would be borne by the UK government and UK taxpayers as a whole. But access to the broader fiscal stabilisation tool of a transfer union – something that many think is a pre-requisite for a successful currency union – would also end under independence.

Moreover, fiscal policy has to be used all the more aggressively in a small country if it is to stabilise the economy, since the demand stimulus of higher benefits and lower taxes tends more readily to leak overseas, in the form of import demand, than is the case in a larger country. This additional reliance on fiscal deficits threatens the country's creditworthiness and therefore raises its funding costs.

But how significant a disadvantage would that be for Scotland? After all, monetary policy is already set with the overall UK economic position in mind, and no special consideration is given to Scotland any more than it is to, say, Wales, London, or the North West. Unfortunately, a number of changes that go with independence would make sterling-based arrangements very much less appropriate for Scotland than the existing regime.

First, Scotland would lose the benefits of a fiscal union with rUK. Under the current political and monetary union in the UK, if monetary policy is inappropriate for Scotland, then national fiscal policy is able to redress the balance: if unemployment in Scotland rises, unemployment benefit payments to Scotland increase and income and corporation tax receipts from Scotland fall. The loss of fiscal union under independence would remove that adjustment mechanism.

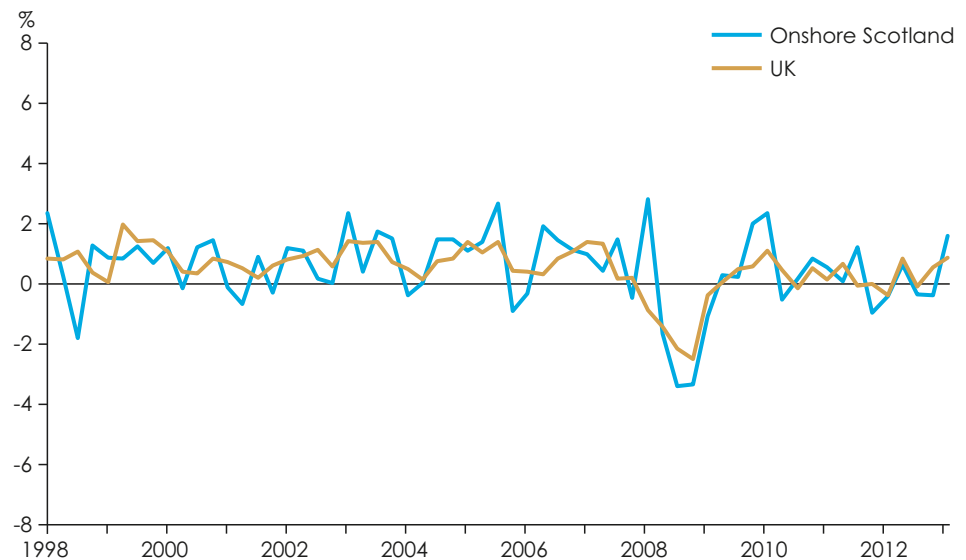
Second, Scotland would gain new vulnerabilities, which make it much more likely that rUK monetary policy would be inappropriate. Under current arrangements, North Sea oil and gas is designated as *extra-regio* and therefore does not affect estimates of output or public finances of any one country or region of the UK. As a result, Scottish and UK GDP quarterly growth rates, excluding North Sea output, since 1998 have tracked each other reasonably closely, with a correlation coefficient of 60% (Chart 2.1).

Were a fiscally autonomous Scotland to have taken a geographic share of hydrocarbon reserves, tax revenues would have been around 23% of the total on-shore tax take in 2011/12. Output from the North Sea would have been a similar proportion of on-shore GDP. But these proportions are notoriously volatile, hence the new country's exposure to oil and gas could have serious implications

⁹ *The economics of currency unions*, a speech by Mark Carney, Governor of the Bank of England, 29 January 2014.

for its economic stability, which UK-wide, or rUK-wide, monetary policy would do little or nothing to accommodate under the sterling options. If Scotland had claimed its geographic share of North Sea output over the 1998 to 2013 period, the correlation in growth rates between Scotland and the UK excluding the North Sea drops to 46% (Chart 2.2). In other words, the UK's monetary stance would typically have been much less appropriate for Scotland over this period had it been independent.

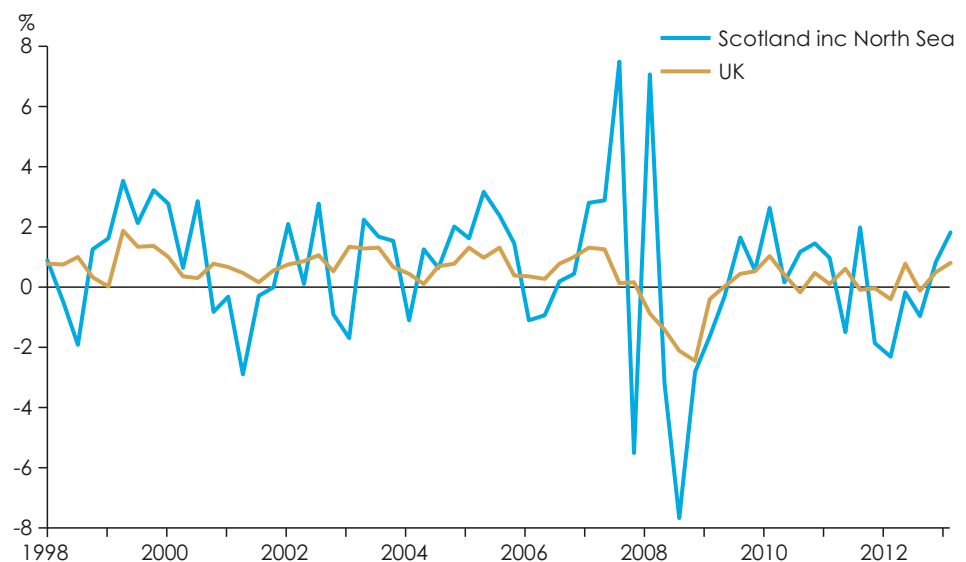
Chart 2.1: Quarterly GDP growth, on-shore Scotland Vs UK



Source: Scottish Government/Oxford Economics

The UK's monetary stance would have been much less appropriate for Scotland between 1998 and 2013 had it been independent.

Chart 2.2: Quarterly GDP growth, Scotland including North Sea Vs UK



Source: Scottish Government/Oxford Economics

So while on-shore Scotland's economy is of a similar structure to that of on-shore rUK, an independent Scotland, of which hydrocarbon output and revenues would be a major element, looks very different. With such a divergent economic structure, the burden of economic adjustment to shocks would fall on three further mechanisms of adjustment: wage and price flexibility; labour mobility; and capital market mobility.

If Scottish labour market institutions and workers are prepared to accept rising wages in good times and real wage cuts in bad, the task of accommodating inappropriate monetary policy would be made easier. But this seems unlikely, given the volatility of Scottish output and the labour market plans of the Scottish government. In the independence White Paper, the Scottish government advocates a "commitment to the living wage"¹⁰ and greater collective bargaining.¹¹ Whatever their individual merits, such policies will inevitably hamper Scotland's ability to adjust to economic shocks without rising unemployment or inflation.

Labour mobility is and would remain a substantial asset for an independent Scotland under the sterling-related currency options, when it comes to cushioning economic shocks. The imposition of a new border would very likely reduce day-to-day mobility between Scotland and England, but the degree to which it would be impaired would depend upon the nature of that arrangement. For example, if Scotland, as a new member of the EU, were to become part of the EU's borderless Schengen Area (see Chapter 4), that would inevitably involve the creation of a more tightly controlled border with the UK, hampering mobility. It seems unlikely, however, that such changes would significantly hinder people's ability to change their country of residence. Therefore the impact of independence on the labour mobility adjustment channel would probably be minimal.

With monetary policy dictated by London, the final mechanism of adjustment on which Scotland would have to rely is capital mobility. Currently, with fully integrated financial markets between Scotland and rUK, losses in one area of the country are absorbed by institutions operating across the UK. To the extent that political separation reduced this integration (see below), this adjustment channel too could be diminished.

So monetary policy for an independent Scotland under any of the three sterling-related currency options would inevitably be much less appropriate to local economic conditions than it is today. Most of the existing adjustment mechanisms would be impaired, at least to a degree, and the Scottish economy would be more volatile.

There are some differences within the three sterling options, but those differences are not so great as to affect the broad conclusion. While a formal sterling union might give Scotland some say at the Bank of England, its weight would be too slight to make monetary conditions much more appropriate for Scotland than they would be under sterlingisation or a currency peg. And to the extent that a peg could be broken and the Scottish currency devalued or revalued to cushion economic shocks, investors would see exchange rate risk in place of credit risk, and charge a premium accordingly. For these reasons, it is reasonable to think that the impact of the sterling options on borrowing costs would be broadly similar.

¹⁰ *Scotland's Future*, p.104.

¹¹ *Ibid.*, p.105.

These factors heap pressure on domestic fiscal policy to cushion economic shocks. Without that fiscal flexibility, booms (relative to the wider sterling area) would cause sharply rising inflation in Scotland and busts large and persistent bouts of high unemployment, as we currently see in the Eurozone periphery. That fact would significantly raise the credit risk – and therefore the funding costs – associated with Scottish sovereign debt.

2.4.2 What would the sterling options mean for financial stability?

The theory of Optimum Currency Areas started to be developed in the 1960s, an era of fixed rather than floating exchange rates. But since then much has changed about the way modern economies function, introducing new considerations in the assessment of whether a shared currency – either formally, informally, or via a peg – is wise for fiscally independent states. In particular, vastly increased capital mobility since the Bretton Woods era, and the growth of financial services, has raised financial stability as an essential consideration when it comes to assessing the merits of the sterling options.

Capital mobility across the different sovereign states of a monetary union can help to cushion economic shocks, as outlined above. But that same mobility can also undermine a country's financial sector as has happened in some Eurozone countries since the onset of the financial crisis. Periphery countries saw outflows of between 10% and 85% of deposits from elsewhere within the zone in the three years up to mid-2013.¹² The financial crises triggered by such outflows can have devastating economic effects on output and employment. Reinhart and Rogoff, examining 13 recent severe financial crises, estimate that on average they cause a peak-to-trough decline in GDP of some 9.3%, and cause public debt levels to increase, on average, by some 86% relative to pre-crisis levels.¹³

When it comes to financial stability, there are important differences between the three sterling options. Under sterlingisation Scottish banks would have no access to a lender of last resort because Scotland would have no central bank. Under a pegged exchange rate, maintenance of the peg would be incompatible with the central bank offering a lender-of-last-resort function.¹⁴ The effective absence of a lender of last resort in the latter two models would greatly increase the likelihood of financial instability, and therefore credit risk on Scottish sovereign debt. Were the credibility of a currency peg to be called into question, that credit risk would be largely substituted for exchange rate risk. Either way the consequences for funding costs could be significant.

Under a sterling union, the Bank of England would have to continue to play the role of lender of last resort to Scottish banks. But this would be no free lunch. At times of high financial stress – the point where the lender-of-last-resort function is most sorely needed – the distinction between illiquid banks and insolvent ones becomes less clear. The provision of emergency liquidity assistance by the Bank of England under a sterling union in such a situation would therefore inevitably put taxpayers' money at risk.

Scotland's banking sector assets were estimated by the Bank of England to be 12.5 times the country's GDP in 2012. That compares to banking sector assets in

¹² *The economics of currency unions*, p 7.

¹³ Reinhart, C. and Rogoff, K., *This time is different: Eight centuries of financial folly*, Princeton University Press (2009), pp 230–32.

¹⁴ Domac, I. et al., *Banking Crises and Exchange Rate regimes: is there a link?*, The World Bank (2000), p 8.

the troubled economies of Iceland, Ireland, and Cyprus on the eve of the financial crisis of around seven times their respective GDPs.¹⁵ Given the size of Scottish banking liabilities, it is therefore difficult to imagine that rUK taxpayers would not also be on the hook.

So despite the apparent differences in terms of financial stability between the three sterling options, the consequences for funding costs would once again likely be similar. If Westminster were to be convinced to share sterling and therefore the lender-of-last-resort function, it would have to be confident that the Scottish government had (or would soon have) substantial fiscal space to limit rUK's taxpayer exposure. Formal sterling union could therefore minimise Scottish sovereign credit risk. But the tight fiscal policy rules required to secure such an agreement would likely reduce credit risk under the peg or sterlingisation alternatives in any case.

Furthermore, assuming that Scotland accepted a population share of UK debt, the newly independent country would start from a point of high indebtedness, with slim prospects of rapidly paying down that debt (see Box 2.1). Consequently, unless much of Scotland's banking sector were to decamp from Edinburgh, reducing the size of the Scottish economy's banking exposure, the consequences for funding costs could be large. Recently, a number of researchers have demonstrated that in times of financial stress, countries with large banking sectors can experience big increases in funding costs.¹⁶ Other researchers have also established that there is an interaction between the liquidity of sovereign debt and funding costs during periods of financial stress.¹⁷

The close relationship between the banking sector and government funding costs is mediated through a second channel, in the form of deposit guarantees. The UK's Financial Services Compensation Scheme (FSCS) pays compensation of up to £85,000 per depositor when a bank becomes unable to meet its obligations. HM Treasury has calculated that in an independent Scotland, FSCS-eligible deposits held by Scottish banks would amount to some 116% of Scottish GDP. The equivalent figure for rUK would be just 52%.¹⁸ Given the size of these liabilities, one might expect either depositors or Scottish banks to reduce the degree to which they are reliant on the Scottish taxpayer by one means or another.

For Scotland to have the kind of fiscal space necessary to absorb a large shock would require it to have debt well below the level it will be at by 2016/17.

All of this implies that it is not simply, or even mainly (in the case of Scotland), the role of fiscal policy to cushion economic shocks of the kind described in the optimum currency area literature. At least as important is for an independent Scottish government to have sufficient fiscal space to backstop its huge banking sector. Spain and Ireland went into the financial crisis with debt-to-GDP ratios of 36% and 25%, respectively. Ireland is now well above, and Spain rapidly heading towards, the 100% mark as a result of bank bailouts and the impact of the credit squeeze on the real economy. For Scotland to have the kind of fiscal space necessary to absorb such a large shock would require it to have a debt level well below the level it will be at by 2016/17.

Any of the sterling options therefore substantially increase reliance on fiscal policy as the main mechanism for adjustment in the face of economic and financial

¹⁵ *The economics of currency unions*, p 19.

¹⁶ See for example, Gerlach, S., Schulz, A. and Wolff, G., *Banking and Sovereign Risk in the Euro Area* (2010).

¹⁷ Attinasi, M., Checherita, C. and Nickel, C. (2009), *What explains the surge in Euro-area sovereign spreads during the financial crisis of 2007–09?* ECB Working Paper no. 1131/2009.

¹⁸ *Scotland Analysis: Financial Services and Banking*, HM Government (2013), p.80.

shocks. But in the specific case of an independent Scotland, two of the country's apparent economic assets – its natural resources and its banking sector – would greatly add to that reliance. Any sense that such obligations could not be met would raise the risk premium on Scottish government debt.

2.4.3 What would be the consequences for Scotland of losing control of its currency?

As we have seen, under the sterling options the stabilisation responsibilities for an independent Scotland's fiscal policy would be onerous. Fiscal constraints would therefore either be enforced by the terms of a sterling union or dictated by the market under a pegged exchange rate or informal use of sterling. But the constraints of the sterling options would also hamper the government's ability to meet those exacting commitments, relative to a country with its own currency. This problem arises for two reasons.

First, a government borrowing in its own currency can stabilise its debt either by running a bigger budget surplus or by resorting to printing money. Under any of the sterling options, however, the latter choice would not be open to Scotland. All else equal, to achieve a given fiscal stance an independent Scotland would therefore have to run a bigger budget surplus.

Second, the lack of effective control over the central bank also has implications for liquidity risk. Sovereigns borrowing in their own currency have the option of forcing their central bank to buy government debt. That option—currently available to the UK—means that market participants cannot precipitate a liquidity crisis in which government borrowing costs explode because of self-fulfilling market fears about a lack of willing counterparties.¹⁹ Under independence, the Scottish government would not be able to force the Bank of England to buy its debt. Indeed, if the Bank of England were to become a supra-national body under a sterling union, along the lines of the ECB, that benefit would likely be lost to both an independent Scotland and rUK, as it has been to Eurozone periphery countries like Spain. The result there has been spiralling government funding costs.

The impact on funding costs of not having control of one's currency has become painfully evident since the financial crisis broke in 2008. Sovereign members of the Eurozone with higher debt levels have faced higher borrowing costs that stem from their lack of control over the currency in which they borrow. By contrast, as the IMF has demonstrated, there is little relationship between real bond yields and debt levels for sovereigns that have their own currency.²⁰

An independent Scotland's net debt-to-GDP ratio would be high if it accepted a population share of UK debt. NIESR estimates that gross debt would be around 81% of GDP in 2016/17, with North Sea output split on a geographic basis.²¹ Under any of the sterling options, then, one might expect its borrowing costs to be significantly higher than those of the existing UK.

19 De Grauwe, P., *The Governance of a Fragile Eurozone* (2011).

20 United Kingdom, 2013 Article IV Consultation, July 2013, p 30.

21 Armstrong, A. and Ebell, M., "Scotland: Currency options and public debt", *National Institute Economic Review*, (2014) No. 227, p.15.

2.5 Quantifying the impact on the public sector

What can we conclude about the consequences of Scotland's constrained monetary policy options for sovereign credit risk? Three key factors are consistent across the options. Scotland will start with a high level of debt; inevitably rely much more on fiscal policy to cushion economic and financial shocks; and not have full control of its currency. A different economic structure, a large banking sector, and a high initial debt burden for newly independent Scotland would mean that the reliance on fiscal policy as a stabilisation tool would perhaps be unusually large. These essential attributes would add further credit risk and liquidity risk for an independent Scotland, on top of the country's lack of track record and thin debt market. That in turn would raise the interest rate premium that lenders would charge.

As a result of these new risks, the implications of the constrained monetary options for Scottish government funding costs would be significant. Efforts to limit that credit risk would be unavoidable – whether as the prerequisite of a formal monetary agreement with rUK, or simply to keep funding costs under control in the other two options. The more an independent Scotland can reduce its public debt, the lower its funding costs would be. As a result, as researchers from NIESR have argued, the fiscal constraints on an independent Scotland are likely to be substantial.²²

The more an independent Scotland can reduce its public debt, the lower its funding costs would be.

The degree of fiscal tightening that is politically feasible will determine both funding costs for Scotland and ultimately the viability of the sterling options. Quantifying the implications of the above factors for government funding costs is very difficult given the number of unknowns. Nevertheless, NIESR modelling of Eurozone sovereign bond spreads between 2000 and 2012 by Armstrong and Ebell suggests that borrowing costs for Scotland inside a sterling monetary union could be between 0.72 and 1.65 percentage points above the UK level.²³ These figures compare to Charles Goodhart's estimate of a one percentage point premium over the UK level due to liquidity risk alone, based on pre-crisis analysis.

However, there are reasons to think that the prognosis for funding costs may be even more adverse than the Armstrong and Ebell results suggest. Their analysis was undertaken for the 2000-12 period during which North Sea revenues were more than three times higher (as a proportion of GDP) than they are now expected to be in the decade after independence.

The OBR's North Sea revenue projection for the ten years from 2016/17 is 0.16% of UK GDP.²⁴ This is a drop from 0.55%, on average, between 2000 and 2012.²⁵ It is important to note that the Scottish government itself has a more positive assessment of the prognosis for North Sea revenues. Nevertheless, with revenues split on a geographic basis the OBR's assessment equates to a drop from revenue of about 5.1% of Scottish GDP to an average of approximately 1.5% in the decade from 2016/17. Such a drop would cause Scotland's fiscal deficit to average some 3.6% of GDP larger than the deficit assumed by Armstrong and Ebell, all else equal.

²² Armstrong, A. and Ebell, M., "Scotland's currency options", Discussion paper No. 415, NIESR (2013).

²³ Ibid., p 40.

²⁴ *Fiscal Sustainability Report*, Office for Budget Responsibility (2013), p.108.

²⁵ Authors' calculations; Oxford Economics; *Statistics of government revenues from oil and gas production*, HMRC (2013).

An independent Scottish government would borrow at a significant premium to the current UK – probably in excess of one percentage point.

In cash terms the impact of independence on Scotland's fiscal position is stark. Under the Union, the net fiscal transfer from rUK to Scotland under the Barnett Formula would remain at around £7 billion in cash terms between 2011/12 and 2016/17.²⁶ This transfer would obviously be lost under independence, while Scotland would gain a geographic share of North Sea revenues. But while those revenues, at £10 billion²⁷ in 2011–/12, would have more than offset loss of the rUK subsidy, by 2016/17 they are projected to fall to around £3 billion²⁸, leaving a £4 billion annual shortfall. For this reason, among some others, the Institute for Fiscal Studies predicts that in 2016/17 Scotland will face a primary deficit of 2.7% of GDP compared to an rUK deficit of just 0.4% of GDP.²⁹

Since a one percentage point increase in the Scottish deficit (as a proportion of GDP) translates into roughly an additional half of one per cent premium on funding costs according to NIESR's analysis, it seems clear that an independent Scotland would have to either cut spending or tax more (See Box 2.1), or accept an even larger increment on its funding costs.

For these reasons it seems reasonable to conclude that an independent Scottish government would borrow at a significant premium to the current UK. That premium would probably be in excess of one percentage point given the scale of the risks and the economic characteristics of an independent Scotland.

In Box 2.1, based on analysis by NIESR and the IFS, we explore the public spending implications in a hypothetical scenario where the new government, in an effort to bolster economic credibility, sought to stabilise and reduce public sector gross debt to 60% of GDP over ten years after independence. Achieving such a debt level is not Scottish government policy, and the government could choose to be less stringent. However the example partly reflects the much less favourable fiscal outlook that a newly independent Scotland would face compared to rUK.

Box 2.1 What degree of fiscal retrenchment might be required?

How large might public spending cuts in an independent Scotland need to be to minimise the sovereign borrowing costs? Armstrong and Ebell's 2013 analysis of Scotland's currency options attempted to quantify the fiscal consolidation that would be necessary in an independent Scotland if it were to achieve the Maastricht criteria for its public finances – a 60% debt-to-GDP ratio and 3% deficit-to-GDP ratio. These are the fiscal conditions required for accession to the Eurozone, and in the wake of the recent crisis, there is little doubt that such conditions would be rigorously enforced for a newly aspiring member of the Eurozone.

Given the finance- and hydrocarbon-heavy structure of Scotland's economy, it seems likely that the Westminster government would expect similar, if not more exacting, fiscal controls before it agreed to a sterling union. And by extension, we could imagine that these fiscal targets serve as a useful benchmark for fiscal rectitude which the sovereign debt markets might expect to see. Armstrong and Ebell assume that an independent Scottish

26 McLaren, J. and Armstrong, J., *Scotland's economic Performance and the Fiscal Implications of moving to Independence*, in Armstrong, A. and Ebell, M. ed., *The Economics of Scottish Independence*, NIESR (2014), p 8.

27 *Government Expenditure & Revenue Scotland*, The Scottish Government (2014), p 43.

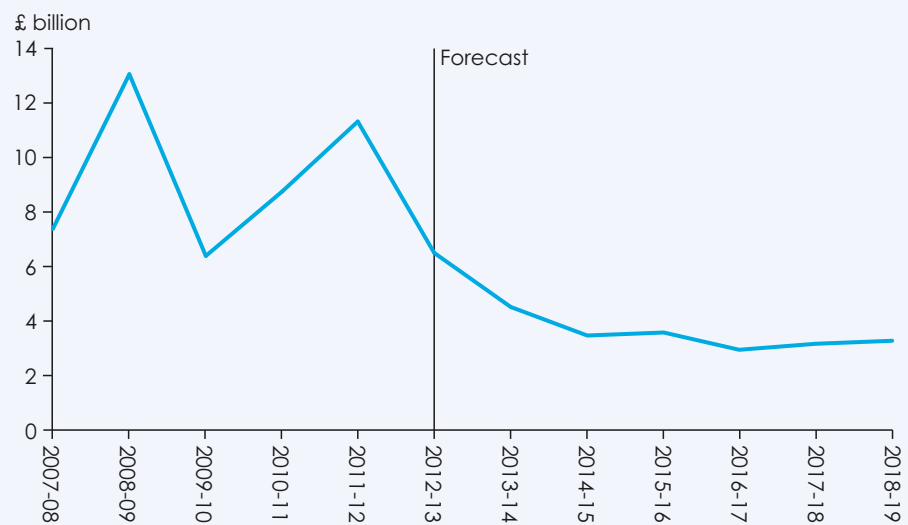
28 *Economic and Fiscal Outlook*, Office for Budget responsibility (2014), p 111.

29 Amior, M., Crawford, R. and Tetlow, G., *The UK's public finances in the long run: the IFS model*, Institute for Fiscal Studies (2013), p24.

government's hydrocarbon tax revenues would be 90% of the total accruing to the UK receipts. They also assume that revenues remain at the average of the five years to 2011/12, some £9.4 billion per year. Combining these assumptions with the results of their modelling, they conclude that achieving the Maastricht criteria over ten years would require running an average primary fiscal surplus of 3.1% of GDP.³⁰

The challenge of achieving that degree of fiscal health depends on the prognosis for government revenues, in particular those for receipts from the North Sea. Here the outlook is not encouraging. Last year alone, revenues as a proportion of UK GDP were around two-thirds of their 2007-2012 level. By 2016/17 the Office for Budget Responsibility expects revenues to be lower still, at just £3.2 billion (see Chart 2.3). Over the ten years after independence, revenues are forecast to average just a quarter of their 2007-12 level, as a proportion of GDP.

Chart 2.3: UK Oil and Gas revenues, current prices



Source: Scottish Government, Office for Budget Responsibility

The Institute for Fiscal Studies has developed a forecast of Scotland's primary balance that takes account of this changing outlook for North Sea revenue and various other factors. Their forecast suggests that on current plans, the Scottish primary deficit in 2016/17 will stand at 2.7% of GDP (compared with a UK deficit of 0.4%).³¹ Since the OBR's North Sea revenue projections, on which this figure is based, have recently been downgraded, this assessment may now be too optimistic.³²

Achieving Armstrong and Ebell's targeted primary surplus of 3.1% from the 2016/17 position projected by the IFS would therefore require further tax rises or spending cuts in Scotland equivalent to 5.8% of GDP in that year, or around £9 billion. This represents a fiscal consolidation on a similar scale to what the UK as a whole is undertaking between 2010 and 2015, and is equivalent to three times Scotland's on-shore CT revenue. Clearly, if oil and gas production – or prices – were to beat the OBR's projections, the degree of fiscal tightening necessary would be reduced.

Coming on the back of already unprecedented public spending cuts, this degree of fiscal tightening in Scotland would be very difficult politically; anything much less might raise questions about the political viability of any of the sterling options.

30 Armstrong, A. and Ebell, M., *Scotland's currency options*, NIESR (2013), p 34.

31 Amior, M. et al, *The UK's public finances in the long run: the IFS model*, p 24.

32 *Economic and Fiscal Outlook*, Office for Budget Responsibility, March 2014, p 111.

2.6 Would full monetary independence lower the risk premium?

The foregoing discussion suggests that an independent Scotland opting for constrained monetary policy could expect to see its borrowing costs rise by one percentage point or more, on a conservative basis. It would also have to implement very significant tax increases or spending cuts to give it the fiscal capacity to deal with economic and financial shocks. All of this seems politically very unattractive. So what is the alternative?

The purpose of Scottish independence is to return a greater degree of sovereignty to Edinburgh than current devolution allows. As the Scottish government's Fiscal Commission Working Group First Report makes clear, "In the long run, the creation of a new Scottish currency would represent a significant increase in economic sovereignty, with interest rate and exchange rate policy being two new policy tools and adjustment mechanisms to support the Scottish economy."³³ In addition, a new Scottish central bank would have the lender-of-last-resort capacity to stabilise the banking system and guarantee financial stability.

Given these advantages, one might expect the creation of a new Scottish currency – issued by a Scottish central bank and thus offering Scotland full monetary sovereignty – to be the Scottish government's favoured option. But full monetary independence would solve some of the problems of the sterling options at the cost of bringing its own challenges.

As with the sterling options, the fundamental driver of funding costs for Scotland if it issued its own currency would be investors' perceptions of the liquidity, credit, and exchange rate risks involved. As with all currency options, the premium on Scottish debt would be higher than that on UK gilts owing to the liquidity risk associated with thinly traded Scottish debt, as well as the lack of a track record for creditworthiness of an independent Scotland. But a number of other factors could raise it further.

The additional premium on Scottish government debt in this case would depend in large part upon the institutional infrastructure behind the new currency, and the confidence investors had in it. As NIESR's Angus Armstrong has written, "Scotland requires a "hard" currency if it is to successfully issue [its population share of UK] debt. This is no mean feat and will take time to achieve. If investors do not believe this is a "hard" currency, higher interest rates and shorter debt maturity will leave the economy vulnerable."³⁴ The problems of not having a track record of low and stable inflation, and successful macroeconomic management would therefore be more acute under the full monetary independence scenario.

Related to this is the exchange rate risk that a small country with a floating exchange rate could be vulnerable to. Fluctuations in the exchange rate – whether driven by changes in economic fundamentals or capital flows based on changing sentiment – increase the risk for investors, and therefore lead to higher premiums on sovereign debt.

Overall, while government funding costs under a free-floating currency would clearly be higher than the current UK level, their level relative to Scotland's other currency options is difficult to be certain of. The government's greater capacity for economic and financial stabilisation would trade-off against lenders'

³³ *First report – Macroeconomic framework*, Fiscal Commission Working Group, The Scottish Government (2013), p 123.

³⁴ A. Armstrong, *Scotland's currency options: a 'hard' currency*, 6 June 2013.

perceptions of the credibility of the new institutions backing the currency and the inevitable exchange rate volatility. Ultimately it is unclear that funding costs would be substantially lower than they would under the sterling options in normal conditions. One difference with the sterling options, however, would be the transition and transaction costs that would face Scottish businesses.

An independent Scottish government's currency choice will have profound impacts on business.

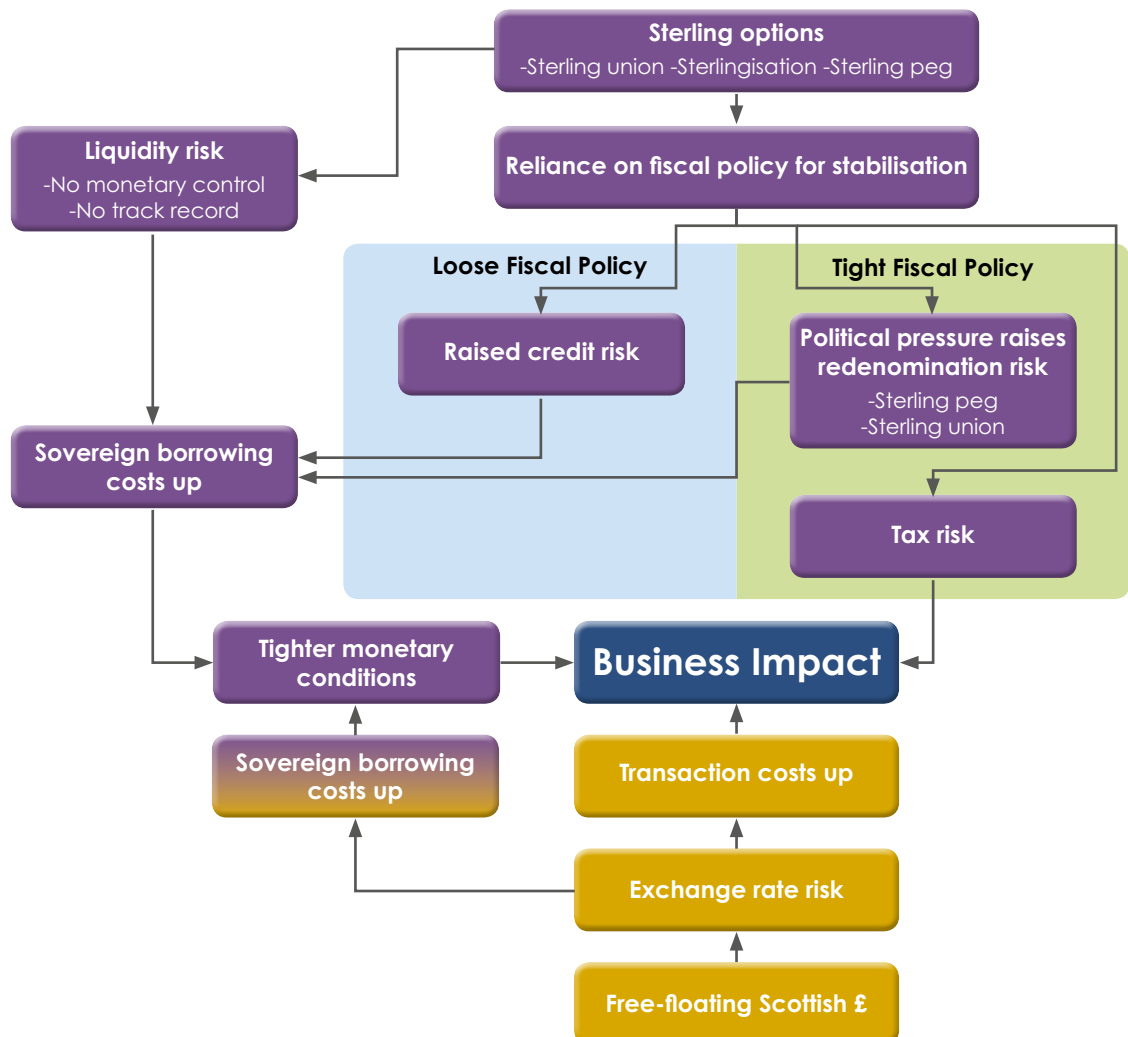
2.7 The impact on the private sector

An independent Scottish government's currency choice will have profound impacts on business. There are three channels through which that impact might be felt. First, the effects of higher government borrowing costs have implications for businesses, through their impact on monetary conditions in the private sector.

The second channel of impact on business from the currency choice comes through taxation and spending. The more fiscally constrained the government is, the greater the likelihood of tax rises or spending cuts that may damage businesses.

The third vulnerability for businesses (and their customers) is the transition and transaction costs that would occur in the specific case of a floating exchange rate. In this final section we offer an assessment of their nature and scale. Figure 2.1, which accompanies the following discussion, illustrates these three channels of impact on business in Scotland.

Figure 2.1: The three channels of impact on business in Scotland



2.7.1 Funding costs for businesses in Scotland

The spillover effects of higher borrowing costs for government into the monetary conditions of the private sector are complicated. Recent experience in the periphery of the Eurozone provides new evidence on the scale of such spillover effects and illustrates how their scale varies substantially between banks, other large non-financial corporations, SMEs, and households.

Banks. Higher sovereign funding costs for a newly independent Scotland would be of significant concern for banks. The Eurozone experience has shown the close relationship between sovereign and bank funding costs within currency unions, particularly during periods of financial stress. The reasons for this are intuitively clear: when banking system liabilities are either explicitly or implicitly seen as being back-stopped by national governments, the risk involved with lending to the one will inevitably track the risks in lending to the other.

But there are other more immediate transmission mechanisms for the spillover of sovereign funding costs. Banks' holdings of domestic sovereign debt expose them to rising bond yields in the form of falls in the value of that debt. That, in turn can curtail banks' scope to lend, with consequences for the wider economy. If Scottish banks were required to hold large amounts of Scottish debt – something that might help with sovereign funding costs³⁵ – they could be very exposed to the likely rise in government funding costs under any of the currency arrangements discussed here.

IMF research, for example, has attempted to quantify the degree of the spillover between sovereign and bank borrowing costs in Italy during the Eurozone crisis. This suggests that when sovereign spreads rise by one percentage point, domestic banks' borrowing costs increase by between 0.15 and 0.2 percentage points.³⁶ This scale of spill-over is comparable with other estimates.³⁷ With sovereign bond spreads in Italy ranging between about one and five percentage points above German *Bunds* for the past five years, this rate of spillover implies significant increases in funding costs for banks based in those countries.

Elevated sovereign borrowing costs can also have an impact on the funding costs of non-bank firms.

Moreover, it appears that the risk premium attached to the sovereign where a bank is domiciled can even raise funding costs for that bank's overseas subsidiaries.³⁸ HM Treasury has cited Santander UK – the UK subsidiary of the Spanish bank – as illustrative of this effect.³⁹

Consequently, for banks currently domiciled in Scotland, if independence were to involve any sustained funding cost disadvantage, it would likely raise the possibility that they would reconsider their location.

Non-bank corporations. Given the importance of the banking system to a developed economy, it is perhaps unsurprising to find a relationship between sovereign credit risk and that of banks domiciled in the country. But elevated sovereign borrowing costs can also have an impact on the funding costs of non-bank firms.

35 Goodhart, C., *The Scottish Financial Structure*, p 141.

36 Zoli, E., *Italian Sovereign Spreads: Their Determinants and Pass-through to Bank Funding Costs and Lending Conditions*, IMF Working Paper 13/84 (2013), p 12.

37 Acharya, V., Drechsler, I. and Schnabl, P., *A pyrrhic victory? bank bailouts and sovereign credit risk*, CEPR discussion paper 8679.

38 Bank for International Settlements, *The impact of sovereign credit risk on bank funding conditions*, CGFS Paper No. 43 (2011), p 10.

39 HM Government, *Scotland analysis: Financial Services and Banking* (2013), p 36.

The link arises for at least two reasons. First, and most directly, the impact on banks may make it harder for non-financial corporations to renew existing loan finance on the same terms they could from UK banks, raising borrowing costs. Second, the result of any fiscal tightening needed to offset higher borrowing costs would be either higher taxes on firms – discussed in more detail below – or poorer-quality public infrastructure, raising their costs and thereby reducing their creditworthiness.

Analysis of these effects within the Eurozone suggests that the spillover of credit risk from sovereigns to non-financial corporations is around a quarter of the level experienced by locally domiciled banks.⁴⁰ This effect is likely to be lower for larger firms with access to a wider range of domestic and international funding channels, but higher for SMEs, which tend to be more reliant on bank funding.

Consumers. For many residents of an independent Scotland, the most immediately obvious impact of higher sovereign borrowing costs may be their impact on consumer financial products. IMF research estimates that increases in bank funding costs are rapidly passed on to consumers – both firms and households.⁴¹ While firms can often diversify their sources of funding to limit the impact, households looking for a mortgage will find that more difficult.

Since banks fund mortgage lending from a combination of deposits and wholesale funding, it is hard to be sure exactly what the impact on mortgage rates would be. It would likely be greater from customers of banks domiciled in Scotland than customers of other banks. Nevertheless, one way or another it is likely that Scottish users of financial services will ultimately foot the bill.

2.7.2 Tax burden and public spending

As discussed in Box 2.1 above, a significant degree of fiscal restraint would need to be demonstrated by an independent Scotland in order to enter any formal monetary union. Under any of the other currency options, on the other hand, a similar level of restraint – reducing debt to 60% of GDP within ten years – might be taken as a proxy for what market discipline would impose to keep government borrowing costs affordable.

Our analysis above, based on the research by NIESR and the IFS, concluded that if the Scottish government wanted to cut its debt level to 60% of GDP over the first ten years of independence, it would need to introduce a combination of tax rises and spending cuts equivalent to around 5.8% of GDP shortly after 2016/17. This equates to annual cuts or tax rises of around £9 billion in 2016/17 – around the same size as the revenue from Scotland's entire National Insurance contributions, and three times its on-shore corporation tax take.⁴² If North Sea revenues were to hold up better than the OBR anticipates – perhaps remaining at their 2012/13 levels of £6.5 billion rather than falling to £4.4 billion as the watchdog forecasts – then the necessary cuts would be slightly smaller.

Either way, it seems likely that substantial fiscal consolidation would be needed by an independent Scotland. If that fiscal gap were to be filled by taxation, it is hard to see how Scottish businesses would escape a higher tax burden. On

40 Bedeno, M. and Colla, P., *Sovereign and corporate credit risk: Spillover effects in the Eurozone* (2013), p 9.

41 *Italian Sovereign Spreads: Their Determinants and Pass-through to Bank Funding Costs and Lending Conditions*, p 14.

42 Adam, S., Johnson, P., and Roantree, B., *Taxing an Independent Scotland*, Institute for Fiscal Studies (2013), p 8.

the other hand, if the fiscal gap were to be closed by cuts to public spending, most businesses – those for whom government is not a major customer – would be less directly affected. In the long run, however, the consequences of poorer infrastructure and public services would likely impose further costs on businesses.

2.7.3 Transition and transaction costs under a Scottish Pound

The above effects of higher sovereign funding costs on the private sector would be felt under any of the currency regimes covered here. But were an independent Scottish government to adopt its own currency, it would add a third category of costs – direct transition and transaction costs – for businesses in Scotland.

One-off transition costs refer to the expense involved for businesses in redenominating contracts and changing consumer pricing in light of the new currency's value. Such costs would be incurred regardless of whether the new currency was pegged to sterling at parity or allowed to float freely.

The burden of transition for its businesses and households could be around £800 million.

The scale of these transition costs for Scottish businesses could be significant but are uncertain. One estimate comes from Latvia's experience of adopting the euro. In the run-up to the 2014 changeover, the Bank of Latvia estimated transition costs for the country at between 0.4% and 0.8% of GDP.⁴³ Other countries adopting the euro in recent years have drawn on past European Commission work that suggests a range of 0.5% to 0.6% of GDP.⁴⁴ If such costs were similar for Scotland, the burden of transition for its businesses and households would be around £800 million.

Allowing a free-floating Scottish pound would introduce a further layer of on-going transaction costs for Scottish businesses and consumers (and those who deal with them). Of course, the key benefit of the sterling-related options is price transparency and low (or no) transactions costs for those engaging in trade with the rest of the UK. A free-floating currency would introduce such costs.

Despite the efficiency with which foreign exchange markets operate, a seller receiving foreign currency for an export sale faces costs to exchange the money into domestic currency. There may also be costs for businesses and households associated with the insurance that a seller takes out (hedging) to protect against fluctuations in currency values. Businesses may face an additional administrative burden associated with internal treasury functions that would be required.

A European Commission study carried out in 1990 sought to quantify these different costs. It concluded that creating a single currency area would reduce transaction costs in the European community by the equivalent of 0.3% to 0.4% of GDP per year, a figure that was found to be proportionately larger for small, open member states. Given Scotland's size and the relative importance of rUK for its trade, if a similar scale of costs applied to the Scottish economy upon leaving the sterling currency area, this would amount to new, ongoing transaction costs of around £500 million per year for Scottish businesses and households.⁴⁵

These transition and transaction costs do not account for the dynamic effects the introduction of a new currency might have over time. The literature, although not

43 Bitans, M., *Case Study Latvia: Why Euro? Why Now?*, Bank of Latvia (2013).

44 *Strategic Guidelines for the National Euro Changeover Plan*, Ministry of Finance of Poland (2010), pp. 20-21

45 European Commission (1990) "One Market, One Money: An evaluation of the potential benefits and costs of forming an economic and monetary union", p. 68.

unanimous, suggests currency unions enhance trade flows, so the introduction of a new currency would likely have a further detrimental impact on economic growth on both sides of the border over the longer term as firms sought to avoid such costs.

2.8 Conclusion

For an independent Scotland there are many options for its currency arrangements. But in each case the implications of independence for sovereign funding costs are adverse. The combination of a relatively thin market for Scottish debt, the lack of a government borrowing track record, limited fiscal headroom, a volatile economy and a large banking sector all imply that the government's borrowing costs would be substantially higher than gilt rates for the UK as it currently stands.

Businesses would be affected in three ways by this. It would have an impact on private sector funding costs, primarily through the close relationship between the perceived solvency of banks and their home-country sovereigns. Second, the fiscal implications of any of the currency options are likely to require a newly independent Scotland to show significant fiscal restraint. It is unlikely that businesses would escape the higher taxes or lower public spending that this implies. Finally, were an independent Scotland to adopt its own free-floating currency, Scottish businesses would bear the direct cost of transition to the new currency and the ongoing transaction costs associated with dealing with businesses and customers in rUK.

Taken together, these costs for businesses in Scotland are substantial, although not prohibitively so. How they would be distributed across different businesses, and the extent to which they could be passed on to consumers – both in Scotland and beyond – is unknown.

3

How might a lower rate of corporation tax affect business?

Summary

Maintaining a lower rate of corporation tax (CT) forms a central plank of the Scottish government's proposals to support a competitive business environment in Scotland. That flexibility to tailor CT – and tax rates in general – more closely to the needs of businesses in Scotland and the aims of the Scottish people is a significant attraction of Scottish independence in principle. Both the likely benefits of the Scottish government's proposals and their viability, in the wider fiscal context of independence, are important to explore.

The Republic of Ireland, where low CT and strong inward investment has gone hand in hand, is often held up as a pro-business model for Scotland to follow. But the international situation has changed since the Irish boom years before the financial crisis, and gaining a similar tax competitive advantage may no longer be possible for Scotland. The UK is reforming its CT system to lower headline rates substantially, to 20% by 2015; and several other European countries have already followed Ireland's lead, reducing the benefits of following suit.

Moreover, when it comes to CT reform it is far from clear that headline tax rates are what really matter to the majority of businesses, since only around 5% of UK firms pay CT at the main statutory rate. Consequently, the underlying structure of the tax regime tends to be more important for businesses. The independence White Paper is silent on changes to the small profits rate, while any changes to tax deductions and reliefs would likely be of far bigger significance for most Scottish firms than the proposals announced so far.

Property taxes, business rates, environmental levies, and the regulatory environment are also important influences on the cost of doing business. But here, too, there is little detail on the policies that an independent Scottish government would enact, and hence the implications for the overall attractiveness of the business environment are very uncertain. British Airways has suggested that the aviation industry may be a beneficiary of lower air passenger duties in an independent Scotland. Until much more information on the detailed structure of the proposed post-independence tax regime is available, however, it will remain unclear which Scottish businesses would feel the greatest benefits, incentives to invest, or inducements to relocate their headquarter activities.

Nevertheless, while there could be benefits to Scotland from the proposed changes to CT, the viability of reducing the tax burden on business is open to question. Although the headline CT rate may indeed be lower after independence, an independent Scotland will inevitably face some difficult fiscal-policy decisions under any currency regime as explored above. As a result, it is hard to see how Scottish businesses would escape untouched from those tax increases and spending cuts.

3.1 Introduction

The Scottish government proposes to set out a timetable for reducing corporation tax (CT) by up to three percentage points below the prevailing UK rate. To explore its key implications, this chapter looks at the proposal by exploring three closely related questions:

- How effective are tax incentives in promoting investment?
- What will be the direct impact of the proposals on different types of Scottish businesses?
- Are the CT proposals likely to be cost effective?

Our conclusion to each of these questions is as follows.

The effectiveness of a cut in the statutory CT rate in increasing business investment varies with the nature of the investment. For multinational corporations (MNCs) deciding on new locations there is clear evidence of the importance of tax incentives, and the significance of tax considerations appears to have increased over time.

There is strong evidence that MNCs “game the system” by shifting profits between countries with different CT rates. Such practices have resulted in tighter anti-avoidance measures, higher monitoring costs by tax authorities, and higher compliance costs for businesses. A novel (and unwelcome) consequence of the proposals will be that many firms with operations both in Scotland and the rUK will likely be caught up in these “international” regulations.

The evidence is less clear that a cut in the statutory rate of CT would increase business investment in general. This mixed evidence may reflect the difficulty in isolating the influence of tax from other important factors. These include the complexity of most CT systems and the tendency over the past 30 years for major economies to scale back allowances and tax reliefs while cutting the headline statutory rate.

From the information available on the Scottish government’s proposals it seems likely that the largest and most profitable firms are likely to benefit most. Service sector firms would tend to benefit more than manufacturers if capital allowances are scaled back, as seems likely. Perhaps surprisingly, a significant number of small and medium-sized companies could end up paying more tax than they currently do.

Will the proposals prove cost effective? On this crucial question there has been very little in-depth analysis. Based on the Scottish government’s projections of the economic impact of the proposals, our estimates point to a 10- to 15-year payback period. If more detail were forthcoming on the proposed streamlining of reliefs that would accompany a cut in the statutory rate, a more robust assessment of the potential impacts could be made.

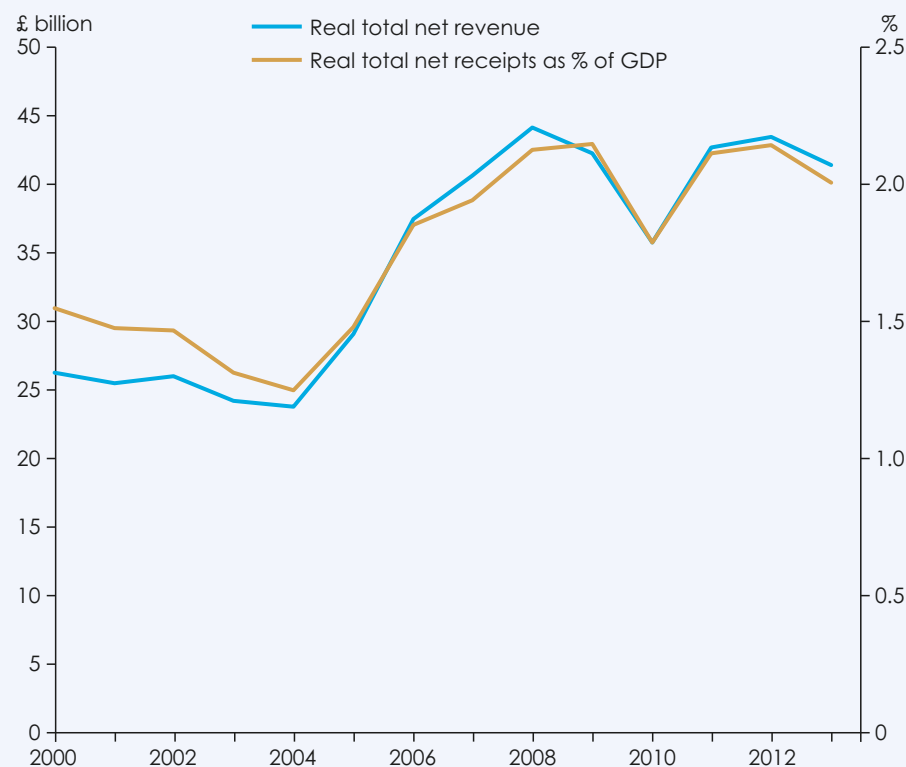
Overall, control over CT has the potential to be a useful policy tool for promoting investment. But naturally, the devil is in the detail, as the reforms may only benefit a small number of large and profitable companies.

The evidence is less clear that a cut in the statutory rate of CT would increase business investment in general.

Box 3.1 UK corporation tax regime

UK corporation tax revenues amounted to £39.5 billion in 2012/13, 8% of all taxes. Of this total, North Sea Oil and Gas (“off-shore” CT) accounted for £4.8 billion, with “on-shore” corporation tax accounting for the remaining £34.7 billion.⁴⁶

Chart 3.1: Corporation tax revenues, in real terms and as a % of GDP



Source: Oxford Economics/HMRC

In October 2013 HMRC published for the first time estimates of the CT revenues attributable to England, Wales, Scotland, and Northern Ireland. On-shore CT for Scotland for 2012/13 is estimated at £2.7 billion (7.7%) of UK total. Off-shore CT is estimated at just under £4 billion (82.7% of the total).⁴⁷

Between 1999 and 2008, the main statutory rate of corporation tax was 30%, but has since been progressively cut; it is currently 23% and will fall to 20% by 2015/16.

Only 5% of companies pay CT at the main statutory rate. Most companies that pay CT instead pay either the small profits rate (20%), or a rate between 20% and 30% based on a sliding scale if their taxable profits lie between £300,000 and £1.5 million.⁴⁸

CT is charged on companies' income after the deduction of allowable business expenses. There are detailed rules that lay down what expenses are allowable, together with an array of “deductions”. The system is complex and taxable income rarely corresponds closely to profit as reported in published accounts.

⁴⁶ In addition to CT, the NSOG sector is subject to a Petroleum Revenue Tax which collected a further £1.74 billion in the financial year 2012/13.

⁴⁷ “A disaggregation of HMRC tax receipts between England, Wales, Scotland and Northern Ireland”, HMRC, October 2013.

⁴⁸ The small profits rate was previously known as the small companies' rate. The SPR applies to profits up to £300,000. The main statutory rate applies to profits over £1.5 million. Between these thresholds a sliding scale called “marginal relief” determines the marginal rate of CT.

The main tax reliefs consist of the following:

- Losses carried forward to set against future profits;
- Group relief that permits the profits and losses earned by different group members to be netted off, with tax charged on consolidated net income;
- Capital allowances which provide deductions for investments in certain plant and machinery (and in the past industrial properties) with the relief spread over a number of years; and
- R&D tax credits that allow more than 100% of the R&D expenditure to be offset against CT.

Reliefs mean that there are many other factors other than the statutory rate of CT that determine tax paid by businesses. Recent analysis of CT returns^{49,50} showed that:

- Corporation tax payments are highly concentrated. The top 1% of taxpaying companies pay 81% of the total.
- The overwhelming majority of CT is paid by group companies, with roughly equal contributions from UK-owned and foreign-owned groups. Non-group companies pay just over 10% of the total.

This concentration among a few large companies stems from a combination of the size distribution of firms, a relatively high threshold for the main statutory rate (£1.5 million) and the impact of allowances.

49 "HMRC: Management of large business Corporation Tax", National Audit Office, 2007.

50 "Corporation Tax in the United Kingdom", Devereux and Loretz, Centre for Business Taxation, Said Business School, Oxford University, 2011.

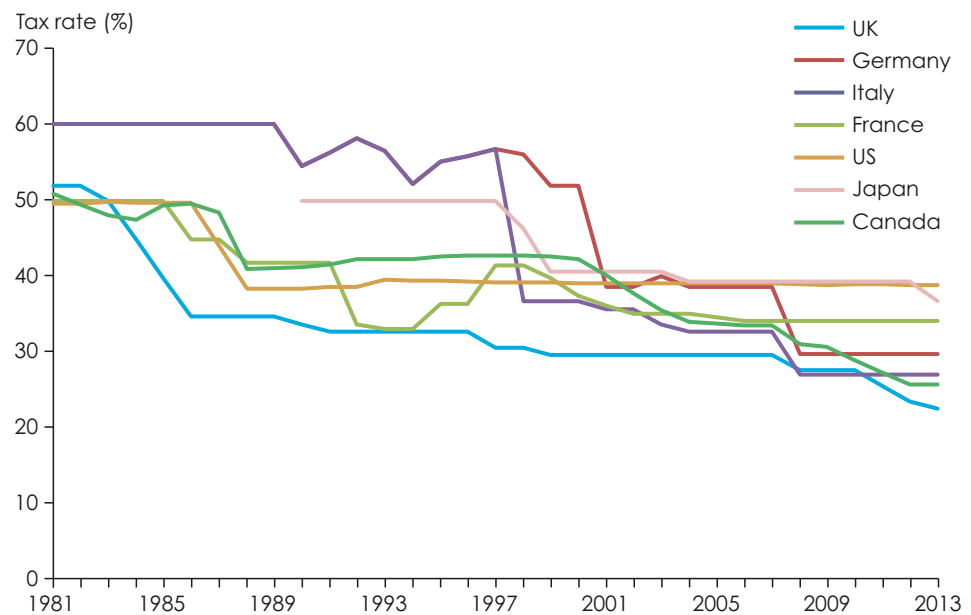
If Scotland maintained a statutory CT rate of up to three percentage points below the UK rate it would undercut all the G7 nations.

3.2 How the UK compares to other economies on CT

The proposal for a reduction in the headline CT rate in an independent Scotland seeks to give Scotland a competitive advantage for both domestic and foreign investment. This raises the question of whether the proposed reduction in the headline rate would let Scotland gain a march on the rUK and other economies trying to attract investment. As shown in Chart 3.2, the UK levies a low rate of CT when compared with other G7 economies.⁵¹ Moreover, following recent reforms to the UK system, the gap between the UK and most of the other G7 countries has widened. Thus if Scotland maintained a statutory CT rate of up to three percentage points below the UK rate it would undercut all the G7 nations.

51 The G7 comprises Canada, France, Germany, Italy, Japan, the UK, and the US.

Chart 3.2: Main rate of corporation tax: G7 economies

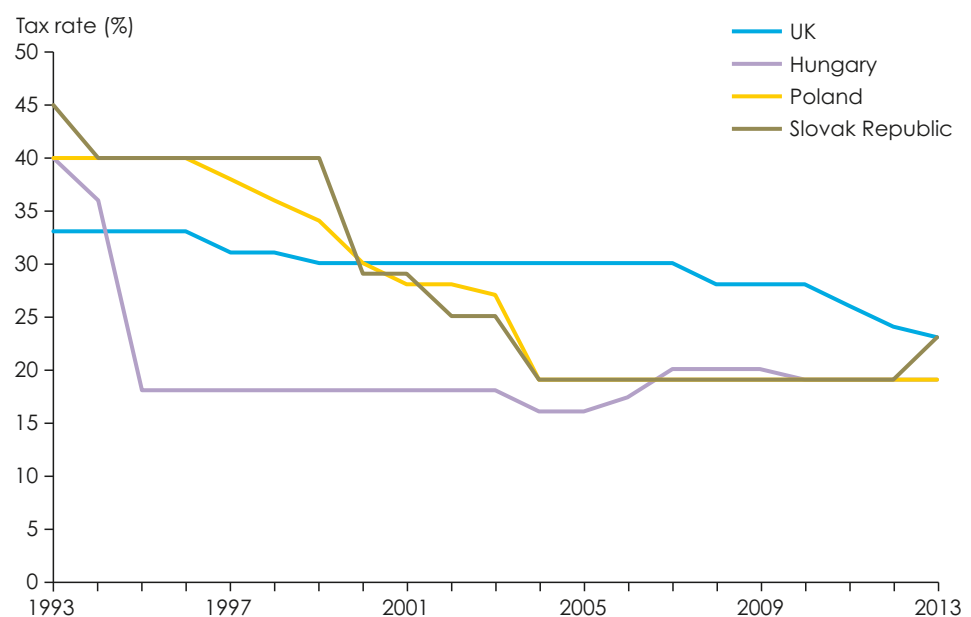


Source: Oxford Economics/OECD Tax Database

As small states often have lower statutory tax rates than large economies, an independent Scotland's tax-competitive position at the headline level would not necessarily offer the competitive edge evident when the comparison is with the world's biggest economies.

The picture against other smaller nations is more mixed. Within the EU, Bulgaria, Hungary, Lithuania, Poland, the Republic of Ireland, and the Slovak Republic, have rates of CT at or below 20%, well below the rate for Europe's major economies (Chart 3.3), with the Irish rate of 12.5% a quarter below where a Scottish rate would be in 2015/16 with the full three-percentage-point differential to the UK rate implemented. As small states often have lower statutory tax rates than large economies, an independent Scotland's tax-competitive position at the headline level would not necessarily offer the competitive edge evident when the comparison is with the world's biggest economies.⁵²

Chart 3.3: Main rate of corporation tax: UK and Europe's 'low-tax' jurisdictions



Source: Oxford Economics/OECD Tax Database

⁵² This fact was noted in Varney, D., *Review of Tax Policy in Northern Ireland*, HM Treasury (2007).

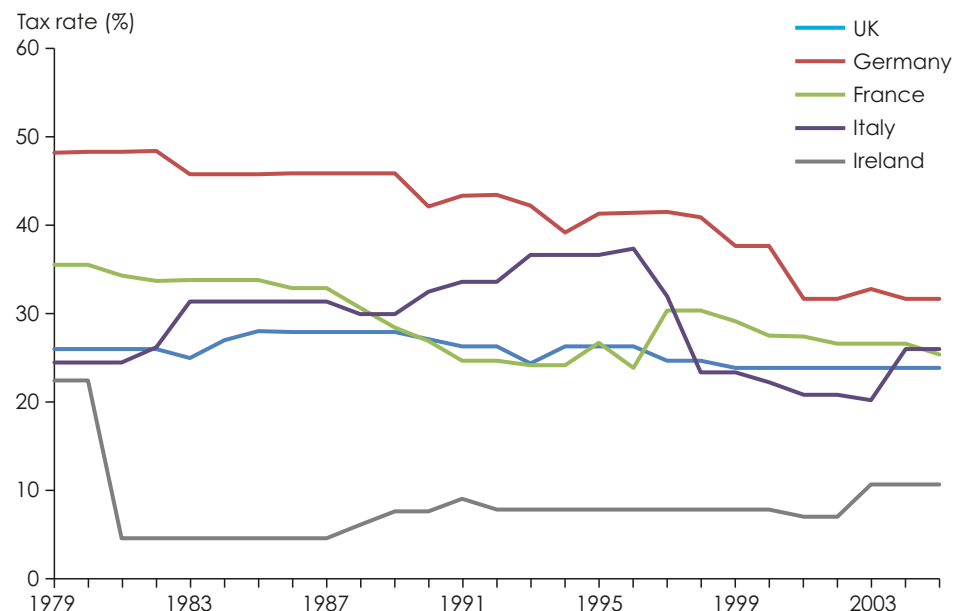
Although much attention is paid to the statutory or headline rate, it is often other aspects of CT that enter into the investment decision. For instance, many firms pay CT below the statutory rate (based on the small profits rate), and a series of important allowances means that the tax implications of a change to the CT system is often poorly reflected in the change to the statutory rate.

Given these complexities, a better measure for overall CT burden is needed to allow us to compare CT across countries and time. Various measures have been proposed by researchers, and a commonly used measure, the Effective Average Tax Rate (AETR), is shown in Chart 3.4 for several European economies.⁵³ This effective rate is likely to be particularly important for businesses taking location decisions. There is less of a downward trend in the AETR across countries, reflecting the fact that cuts in the statutory rates have often been offset by increases in the tax base – usually achieved through a streamlining of “deductions”.⁵⁴ The chart also shows that while the UK still looks competitive against the other large European economies, the Republic of Ireland possesses the lowest AETR by far. (The data in the chart ends in 2005, before the recent cuts in the UK statutory rate.)

Without more detail on the changes to allowances and reliefs that would be part of an independent Scotland’s restructuring of CT it is not possible to identify how the Scottish AETR would be affected. These changes could erode part or all of the gains in tax competitiveness for different categories of investment.

Finally, even if an independent Scotland were able to lower both the statutory and effective rates of CT, there is now less scope to stand out from the pack, while Ireland would remain in the lead by a considerable distance.

Chart 3.4: The Average Effective Tax Rate (AETR)



Source: Oxford Economics/Institute of Fiscal Studies

⁵³ Devereux, Griffith and Klemm (2002).

⁵⁴ For a discussion of these trends, see “Corporate income tax reforms and international tax competition”, Devereux, Griffith and Klemm, *Economic Policy*, October 2002.

3.3 How effective are tax incentives in promoting investment?

This section looks at the evidence on the impact of CT changes, which suggests that the effects depend on the nature of the investment itself. Three situations are discussed – investment in aggregate, MNCs' location decisions, and profit shifting.

3.3.1 Effectiveness of tax incentives in promoting investment in general

We first look at the evidence on how effective tax incentives are for increasing business investment in general.

Despite the expectation of a straightforward link between changes in the rate of corporation tax and the incentive to invest, many early studies found little evidence of a significant influence from the rate of tax and total business investment in the economy. For example, a review of the literature concluded: *“Most empirical analyses relating tax policy to equipment investment have failed to find strong, independent effects.”*^{55, 56}

The lack of success in finding a clear link between tax incentives and total investment lead to a change in tack in the research literature, with research increasingly directed at looking for evidence of a tax effect from the behaviour of individual firms.⁵⁷ This line of research has found more evidence of a tax effect, although its strength is still a matter of debate.⁵⁸ Perhaps more importantly, it is not clear what conclusions policy-makers can draw from these more recent studies, as the extent to which findings based on a narrow group of firms or an industry can be scaled up is far from certain.

Studies that have looked specifically at cross-border capital flows (FDI) have reached similar conclusions – tax incentives appear to work on average, but there is little agreement on the strength of its influence.⁵⁹

3.3.2 MNCs' location decisions

While the effect of tax policies on either total investment or FDI flows in general has proved difficult to quantify with any precision, research looking specifically at MNC's location decisions has been more successful.

Corporation tax is often discussed in the context of attracting foreign MNCs to locate their operations in the UK. One reason is that while a relatively small number of foreign-owned MNCs account for around 1% of firms in the UK, they account for over a quarter of output.⁶⁰ They also make a substantial contribution to CT revenues. Foreign-owned MNCs contribute around 45% of CT revenues, with a similar proportion coming from UK-owned MNCs.⁶¹ Moreover, it is often argued that MNCs support long-term growth because they bring with them knowledge and technology transfers and create high-skill jobs.

55 “Tax Incentives and Equipment Investment”, Brookings Papers on Economic Activity, 1993, page 338.

56 For a more recent study that reaches a similar assessment of the early literature, see “Tax Policy and Business Investment”, Hassett and Hubbard, in *The Handbook of Public Economics*, Vol 1, 2002.

57 For an example of a recent study using micro dataset, see “Investment and the Cost of Capital: New Evidence from the Corporate Bond Market”, Gilchrist, Natalucci and Zakrajec, 2007.

58 For recent surveys, see “A review of tax research”, Hanlon and Heitzman, *Journal of Accounting and Economics*, and “Corporate tax elasticities: A reader's guide to empirical findings”, de Mooij and Ederveen, Centre of Business Taxation working paper, 2008.

59 “What a difference does it make? Understanding the empirical literature on taxation and international capital flows”, de Mooij and Ederveen, *European Commission Economic Papers*, December 2006.

60 Annual Business Survey, October 2013.

61 Devereux and Loretz. (2011) Corporation tax in the United Kingdom, Centre for Business Taxation.

A 2006 review of FDI that looked in detail at 25 studies concluded that:⁶²

- While there is a connection between investment and the tax rate, there is substantial variation in research results, with more than half the estimates statistically insignificant.
- Studies using the AETR tend to find a stronger investment response than studies using the statutory rate: a finding that supports the view that tax deductions are as important to investment incentives as the statutory tax rate.

The most recent update (2013) to this work broadly supports the earlier conclusion that the tax rate (especially the effective average rate) has a measurable influence on FDI flows, but the wide variety of experiences identified in different studies still holds true.

The strength of the tax effect varies by industry, time, and country. For example, capital flows from non-manufacturing firms appear to be more responsive to taxes than capital flows from manufacturers. There is evidence that influence of tax has increased over time. Cross-border M&A activity is less sensitive to tax rates than other types of investment. While most studies focus on tax incentives offered by the host country, the tax rate in the parent country may also exert an important influence, both in where subsidiaries are located and where the parent is based.

A recent survey of the literature suggests that a one-percentage-point reduction in the tax rate increases FDI by around 3.7%.⁶³

3.3.3 Profit shifting

The complex interaction between international business and the detailed provisions of the tax codes of the countries in which they operate can give businesses the scope to reduce their overall tax bill by allowing taxable profits to be reported in favourable corporate tax jurisdictions. This so-called profit shifting can be achieved without necessarily establishing major operations, such as global or regional headquarters, in the low-tax country.

A recent survey of the profit-shifting literature⁶⁴ concluded that a one-point decrease in the statutory tax rate resulted on average in an increase of 0.8% in the tax base. Between transfer pricing and tax-efficient financial structures, the former was the more commonly used mechanism to facilitate profit shifting.

To discourage profit shifting, UK firms are required to value intra-group transactions using an “arm’s length” price, such as a market price, where possible. “Thin capitalisation” rules also restrict the way that a multinational company’s financial structure can be used to shift profits between countries. Enforcing these regulations requires a high level of expertise and is costly for the tax authorities to monitor and for businesses to comply with. Were the rules overhauled as part of the “streamlining” of CT in an independent Scotland, and to the extent that the new rules need to be tested in court, this would add to uncertainty until the new system settled down’.

62 “What a difference does it make? Understanding the empirical literature on taxation and international capital flows”, de Mooij and Ederveen, European Commission Economic Papers, December 2006.

63 *Tax Effects on Foreign Direct Investment: Recent Evidence and Policy Analysis*, Tax Policy Study No. 17, OECD (2008), p 12.

64 Heckemeyer, J. and Overesch, M., *Multinationals’ Profit Response to Tax Differentials: Effect Size and Shifting Channels*, Centre for European Economic Research, Discussion Paper No. 13-045 (2013), p 2.

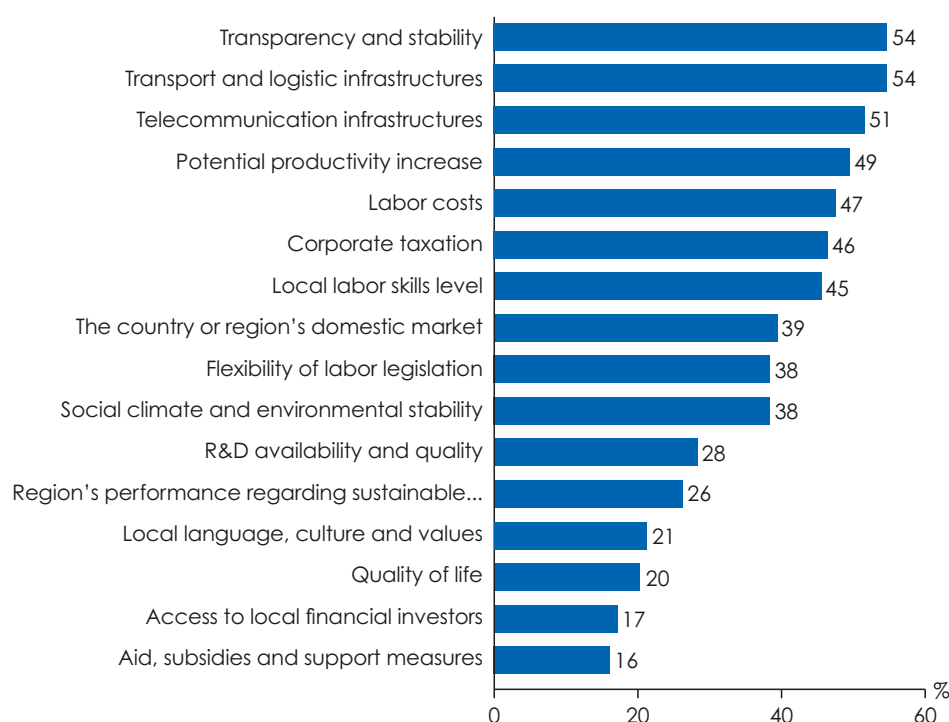
A one-percentage-point reduction in the tax rate increases FDI by around 3.7%.

3.3.4 What other factors affect the link between corporation tax and investment?

Given that there is no simple link between CT and investment, it is probable that other factors have an important part to play in the investment process. Business surveys provide direct evidence of these factors and provide insights into business perceptions of the relative importance of CT.

The 2008 Ernst and Young “European Attractiveness” survey asked firms to rank 16 “key factors” according to their importance in deciding their international investment decisions (Chart 3.5). Corporate taxation is ranked sixth in terms of importance, below transparency and stability of political and legal and regulatory environment (first); transport and logistic infrastructure (second); telecommunications infrastructure (third); potential productivity increase (fourth); and labour costs (fifth).

Chart 3.5: Key factors in international investment decisions



Source: Ernst & Young, 'European Attractiveness' survey, 2008.

The importance attached to transparency and stability points to the risk that many firms – especially multinationals – may hold back from investing in an independent Scotland until a credible monetary and macroeconomic framework has been established and Scotland's future membership of the European Union has been confirmed.

The KPMG “Competitive Alternatives” survey (2013) provides a quantitative assessment of the costs of “key factors” affecting international investment, including tax (Table 3.1). For manufacturing firms considering location decisions, taxes account for between 10% and 18% of costs; for non-manufacturing firms, the proportion is lower, between 3% and 14%. This suggests that tax is likely to be important when choosing between two similar economies (such as between Scotland and the rUK), but tax is less likely to be the determining factor when choosing between countries where labour productivity (and hence unit costs) differ markedly.

Table 3.1: The relative importance of Key Location-Sensitive Cost Factors

	Manufacturing Operations	Non-Manufacturing Operations
	%	%
Labour costs	40-57	70-84
Lease & capital costs	11-28	5-25
Transportation costs (road, air, sea)	1-15	5-25
Taxes		
Property	1-2	0-0
Other	1-1	1-2
Income taxes	8-15	2-12
Total taxes	10-18	3-14

Source: KPMG 'Competitive Alternatives' survey, 2013

In summarising the literature on the relative importance of tax and non-tax influences on FDI, the Varney Report concluded:

*"...consistent with the survey evidence reported above—gravitational variables (distance, market size) are the main determinants of FDI and of more significance than tax... easy market access and low costs as well as skills, infrastructure and telecommunications were the prime motivations for FDI."*⁶⁵

All of which is consistent with the view that CT can play an important, but not decisive, role in determining whether firms choose to locate either north or south of the border (or between Ireland and Scotland), where other key factors such as the education of the workforce and the quality of the infrastructure are broadly comparable. That access to markets is again cited as a key factor corroborates the view that Scotland's continuing membership of the EU is likely to be an important prerequisite to attracting inward investment.

The importance of both non-tax factors and the uncertainty of how the effective CT rate would change make it much harder to predict how successful an independent Scotland would be in replicating Ireland's success in attracting inward investment. The cut in the headline rate would send an important signal about business friendliness; however, the evidence suggests that the real effectiveness of lower tax rates depends on whether other factors are also conducive to inward investment.

We now turn to the second of our questions – what will be the direct impact of the proposals on different types of Scottish businesses?

3.3.5 The direct impact of the proposals on Scottish businesses

Recent reforms in the UK CT regime have seen the statutory tax rate cut by around the amount suggested in the Scottish government's White Paper. The impact of these ongoing changes provides insights into the effects that a reduction in statutory CT rates might have in an independent Scotland.

⁶⁵ *Review of Tax Policy in Northern Ireland (2007)*. These conclusions are also echoed in a recent survey of members by the Scottish Council for Development and Industry (SCDI). The SCDI noted the widespread view that (1) the headline rate is only one consideration – tax certainty and allowances are also important factors, and that (2) corporation tax was not the sole reason for locating a business; decisions also took account of physical infrastructure, and access to raw materials and skilled labour.

Corporation tax can play an important, but not decisive, role in determining where firms choose to locate.

The recognition that the UK CT system required reform pre-dates the financial crisis. The debate was given additional impetus by the decision of a number of high-profile companies to move their tax residency away from the UK.⁶⁶

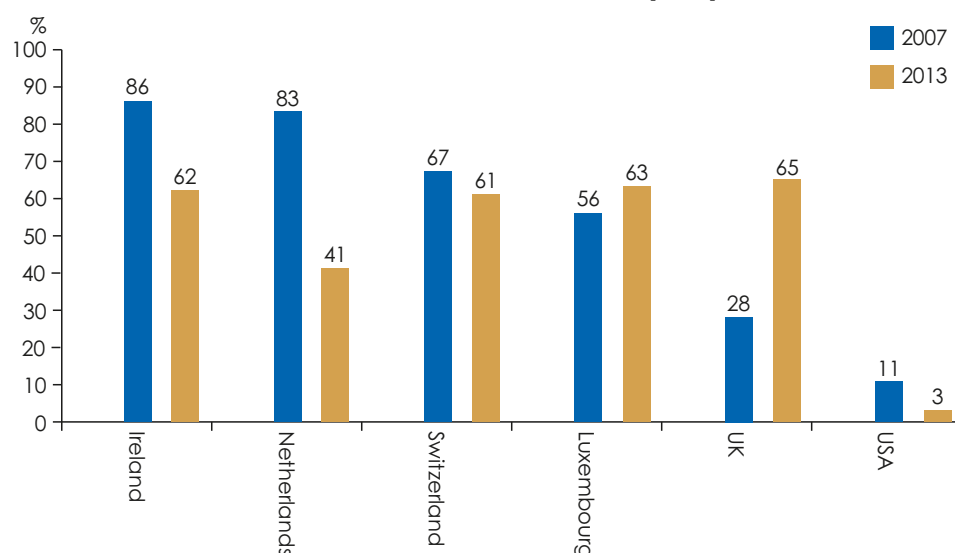
In response to concerns that the UK CT system was working against the interests of UK businesses, policy is now expressly targeted to making the UK “the most competitive corporation tax regime in the G20”.⁶⁷ The statutory rate of CT was reduced to 28% in 2008/09, then to 27% in 2011/12. It is due to be cut further to 21% in 2014/15, then to 20% in 2015/16.

As part of a raft of measures to bring the UK CT system up to date, the UK has changed its rules for the taxation of overseas income to a more territorial system.⁶⁸ In line with this change, UK companies in general are no longer taxed on their overseas income repatriated as dividends.⁶⁹ These changes to the UK system have made the UK a more attractive base for headquarters of multinational companies.⁷⁰

Evidence from the KPMG “Tax Competitiveness” survey suggests that the recent reforms have had a considerable impact on businesses’ perceptions of the UK corporate tax regime.

When asked in 2013 to name their top three most attractive countries from a tax perspective, respondents put the UK in the top position for the second year running, above the Republic of Ireland, the Netherlands, Switzerland, and Luxembourg – countries that in the past have been seen as having more favourable tax regimes (Chart 3.6). The survey findings point to a striking change in perceptions. The 2007 survey – taken before the reforms – showed the UK lagging well behind these other locations in terms of its attractiveness from a tax perspective.

Chart 3.6: Most attractive countries from a tax perspective



Source: KPMG

¹ First data available for Switzerland is from 2009

⁶⁶ For example, between 2005 and 2007 Ebay and Kraft changed their tax residency to Luxembourg and Switzerland respectively; Omega and Hiscox moved to Bermuda; while Experian and Google moved to the Republic of Ireland.

⁶⁷ “Corporation Tax Reform: Delivering a More Competitive System”, HMT and HMRC, 2010

⁶⁸ Effective July 2009. Rules of “tax residency” determine the country where a multinational business is deemed to be primarily based. “Double taxation” treaties between countries the give the resident country primary rights to tax the company’s activities.

⁶⁹ The controlled foreign corporation (CFC) rules, which guard against abuse of the system, were also reformed.

⁷⁰ In particular, the move to a territorial tax system, the more favourable CFC rules, and the introduction of the Patent Box, setting a 10% tax rate on income related to the ownership of patents.

The KPMG survey also asked questions specifically about firms' intentions of relocating either away from or to the UK.

- Asked whether they were “actively considering moving their tax residency”, 5% of UK companies said they were considering moving from the UK (the lowest proportion since 2007), while 10% of foreign-owned companies questioned said they were considering moving their tax residence into the UK.
- A further 15% of UK companies reported that they had studied the possibility of moving but decided not to leave due to the recent reforms.

Among other changes, two events are of particular interest with regard to the possible impact of the Scottish government's proposals on CT:

- The reforms of corporation tax in 2008 reduced the main rate of corporation tax by 2 percentage points (to 28%), increased the small companies' rate by one percentage point (to 21%), and reduced capital allowances.
- In 2010 a further progressive reduction in the main statutory rate began, amounting to a total reduction of four percentage points (by 2014/15) combined with further reductions in capital allowances.⁷¹

Devereux and Lortez (2011) provide a detailed analysis of the impact of the 2008 and 2010 reforms on firms' tax liabilities.⁷² Their findings included:

- The 2008 tax reform kept the average tax burden broadly unchanged (-0.4%). Despite this, the impact was unevenly spread across firms. While 1% of firms benefited from a reduced tax burden, 71% of taxpayers paid more tax either because of the increase in the small profits rate or reduced capital allowances.
- In 2010, with both the main rate and small profits rate of CT cut, the average tax liability fell by just over 10%; 64% of firms benefited from a reduction in their tax burden, while 9% faced a higher liability due to the reduction in capital allowances.

While both episodes involved a cut in the main rate of CT, the impact of changes to the small profits rate and capital allowances were sufficient to increase the tax liability for a significant majority of firms following the 2008 reforms, and almost one in 10 firms were again facing a higher tax bill following the 2010 reforms. Table 3.2 illustrates this by comparing the five sectors hardest hit by the 2008 reforms with the five sectors least affected (judged by the proportion of firms facing increased tax liabilities) by the 2010 reforms.

⁷¹ The very low rate of capital allowances in the UK mean that it is not a particularly attractive location for physical investment. Investment in buildings does not receive any relief under the UK CT regime.

⁷² “Corporation tax in the United Kingdom”, Centre for Business Taxation, Said Business School, Oxford University, 2011.

Table 3.2: The impact of the recent UK CT reforms on different business sectors

The proportion of firms with higher tax liabilities		
	2008	2010
The five sectors hardest hit by the 2008 reforms		
Professional services	83%	7%
Construction	82%	10%
Other manufacturing	80%	17%
Mechanical engineering	79%	17%
manufacturing, metals	77%	17%
The five sectors least hit by the 2010 reforms		
Textiles	68%	12%
Mining	66%	13%
Electricity	65%	14%
Real estate	62%	5%
Finance	59%	6%

Source: Centre of Business and Taxation

The above analysis shows that the small profits rate and capital allowances are more important for many firms than the main statutory rate of CT. This has important lessons for the Scottish CT proposals. The Scottish government's desire to streamline reliefs could be interpreted as an intention to reduce the overall generosity of deductions such as capital allowances, undermining the overall giveaway to business. Like the wider research on the links between CT and investment, this UK experience suggests that post-independence decisions on these reliefs and allowances would prove more important to the investment and location decisions taken by the majority of Scottish businesses than the announced cut to the main rate of CT.

Furthermore, while a lower statutory CT rate may add to the attractions of a Scottish location, other impacts from independence on the business environment could mute these effects. For example, in the tax field alone businesses might conclude that the complexities of dealing with two CT, VAT and PAYE regimes on either side of a new border would offset at least some of the benefit of a lower headline CT rate.

While a lower statutory CT rate may add to the attractions of a Scottish location, other impacts from independence on the business environment could mute these effects.

3.4 Measuring the potential impact of the Scottish Government's proposals

The White Paper contains the two key provisions relating to CT:

- A timetable for reducing the rate of corporation tax by up to three percentage points below the prevailing UK rate to counter the gravitational pull of London to business.
- Simplification of the tax system to reduce compliance costs, streamlining of reliefs to help reduce tax avoidance, with a target revenue gain of £250 million a year by the end of the first term.⁷³

⁷³ Another proposal is to explore further help for small businesses, for example with National Insurance costs to encourage more job creation.

The Scottish Government has estimated the annual cost of the proposals at £385 million.⁷⁴ Offsetting this cost is the long-term benefits to the wider economy that the tax reductions are expected to deliver. The Scottish government estimates that the proposed cut in CT will lead to GDP being 1.4% higher than it otherwise would have been in 20 years' time. So while the immediate effect of the CT cut will be to lower tax revenues, as the tax cut generates additional investment that underpins future growth, there will be offsetting increases in tax revenues, both from higher profits and higher labour income. For the CT proposals to be cost-effective these future additional tax revenues need to eventually exceed the cumulative cost of cutting the CT rate.

We estimate that the CT proposals would pay for themselves in around 10 to 15 years.

Although the estimates for revenue loss and future GDP gains in the White Paper provide the basis for estimating the payback period, the Scottish government has not set out when it expects a cut in the CT rate to break even. Using the figures set out in the White Paper, a boost of 1.4% to output in 20 years' time translates into just under £3 billion in current money terms.⁷⁵ Assuming the benefit from the CT cut builds steadily over that period, and the annual cost of the CT cut in lost revenues remains at £385 million, we estimate that the CT proposals would pay for themselves in around 10 to 15 years.

However, the Scottish government has also proposed streamlining the CT system with the aim of gaining potential cost savings from a simplified system. Based on the work by the Scottish government's Fiscal Commission, the White Paper sets a target of saving £250 million a year from this streamlining. Transitioning to a new tax system will inevitably take a number of years to accomplish. However, if the full savings are realised, this will serve to shorten the payback period substantially. For example, were the full savings to be realised from year three, then the payback period could be cut to between six and nine years.

The costs and benefits of reforming the CT system are not confined to changes in government tax revenues. In simplifying the CT system there is the potential to reduce the inevitable distortions that a complex tax system brings to corporate investment decisions. For example, that debt interest is tax deductible encourages companies to carry more debt than they would otherwise do. Capital allowances encourage investment in some types of assets over others, and favours new assets over old. Removing these distortions, so that corporate decisions better reflect underlying resource costs (rather than minimising tax) has the potential to raise output in the long term. These "structural" benefits are unlikely to be reflected in the above calculations.

The above considerations suggest that the CT proposals could deliver long-term benefits to the Scottish economy. That said, there are a number of caveats that need to be borne in mind.

For the majority of Scottish firms the streamlining of reliefs and the proposal to offer additional support to small firms are likely to have a bigger impact on their tax liabilities than the cut in the statutory rate of CT. Without more detail on important aspects of the CT regime, such as group relief for cross-border firms, treatment of accumulated losses and allowances and credits, it is not possible to identify who the winners and losers might be. For example, were capital allowances to

⁷⁴ 'Devolution Corporation Tax in the Scotland Bill', Scottish Government, 2011.

⁷⁵ If the economy achieves a trend growth rate of 2.5% over the intervening period and the overall tax burden in the economy remains close to 35%.

be reduced as part of the CT reforms, then firms in the service sector, which are generally less capital intensive, would be more likely to benefit from a cut in the statutory rate than manufacturers. As such, any assessment of the proposal's impact on the majority of Scottish businesses can only be tentative. It is quite possible that a significant number of firms could face higher tax bills despite a cut to the statutory rate, as happened with both the 2008 and 2010 reforms in the UK.

While there may well be scope to simplify the UK CT system, an independent Scotland would create new administrative problems for collection of CT for businesses and for the tax authorities on both sides of the new rUK-Scotland border. At present a business can operate throughout the UK and has to declare only its UK-wide taxable profits. Post-independence, businesses with operations in both Scotland and the rUK will need to allocate their income and expenses to either side of the border. Given the incentive to shift profits north of the border, both tax authorities would need to monitor this. This would impose additional administrative costs, which would fall on businesses and both Scottish and rUK tax authorities.

In addition to these tax-related issues, there is the crucial question of affordability. In the early years of a new CT regime there would be a net loss of revenues. Covering this gap means a mix of additional borrowing, higher taxes or lower spending. As discussed in Chapter 2, the fiscal environment that an independent Scotland would inherit and the need for tight fiscal control could make it difficult for a newly independent Scotland to implement these changes, even though the long-term payoff could be attractive.

Returning to the three questions that were posed at the start of the Chapter, the key conclusions are as follows:

- The effectiveness of tax incentives depends on the type of investment being undertaken. The evidence that tax incentives can act as a powerful tool with which to raise overall business investment is inconclusive. There is much stronger evidence that tax incentives can sway MNCs when deciding where to locate. There is even stronger evidence, however, that MNCs engage in profit shifting, and tax authorities' attempts to curb this behaviour will impose additional costs to both businesses and the authorities themselves if these rules need to be enforced at the Scottish-rUK border.
- As they stand, the proposals remain too sketchy to draw firm conclusions about their impacts on Scottish businesses. In particular, recent UK experience has shown that a cut in the statutory CT rate can be accompanied by a significant number of firms facing higher tax bills. What is done to allowances and the small profits rates will be crucial in this regard.
- Due to this lack of detail, it is also difficult to draw firm conclusions on their impact on the Scottish economy, and whether the proposals offer value for money. The Scottish government published forecasts for the economic benefits it expects the proposals to bring, and based on these numbers they could pay for themselves in 10 to 15 years. If more detail were forthcoming on the proposed streamlining of reliefs that would accompany a cut in the statutory rate, a more robust assessment of the potential impacts could be made.

4

The impact of independence on trade

Summary

One certainty is that if Scotland's people vote for independence, there will be a new international border across the British Isles. And evidence from around the world shows that international borders hinder trade. This border friction on trade flows can come from transaction costs involved in dealing with separate currencies, administrative procedures and differences in regulation.

Around 70% of Scotland's non-oil exports would be vulnerable to border effects in the event of independence. The scale of impact would vary across product types. For example, the issues for the oil, gas, and whisky industries, where comparative advantage and product uniqueness drive exports, are likely to be much less significant than for many other products and services.

For other products, the creation of a new border between businesses and their customers could act as an impediment. For some businesses, most notably in financial services, their customers in rUK are likely to have a strong preference to buy from domestic providers (for example, to take advantage of government protection schemes). As a result, there would be substantial pressure for those businesses to relocate the related operations out of Scotland to retain existing clients and to ensure future growth. For example, in its recent *Annual Report* Standard Life stated that "...we have started work to establish additional registered companies to operate outside Scotland, into which we could transfer parts of our operations if it was necessary to do so. This is a precautionary measure to ensure continuity of our businesses' competitive position and to protect the interests of our stakeholders." Scottish companies may also be less well placed to compete for some public procurement contracts in rUK.

In addition, the small size of the domestic market post-independence may deter some companies from investing in Scotland; for example, online retailers or suppliers. This could in turn impact the supply chains that develop around leading businesses, increasing the challenge to purely Scottish businesses to participate fully in these supplier relationships.

With non-oil exports to rUK accounting for around nearly one-third of total Scottish GDP, the potential impacts of border effects on business are substantial. And Scotland's exports to other countries would have to expand very sharply to offset any loss in rUK business. An independent Scotland would gain increased flexibility in publicly supported efforts to promote its exports with its own focused, albeit smaller, presence in overseas markets. Scotland would aim to have an international representation of between 70 and 90 offices around the globe, compared with the UK's network of 267 offices. But it would lose access to the UK's overseas embassies and consulates and to the UK's soft power, derived from such factors as its membership of the G8 and G20, which can be important in settling trade issues, including those inhibiting whisky exports.

4.1 How would independence impact Scotland's trade

Independence would introduce an international border into the UK's integrated economy. This chapter examines to what extent such a border would impact Scotland's trade with the rest of the UK. An independent Scotland would also be able to implement an export promotion effort tailored to its specific needs and

opportunities. The relative effectiveness of this effort would have implications for an independent Scotland's export growth compared with that under existing export promotion arrangements.

The chapter commences with background on Scotland's trade, before examining the implications of the new international border that independence would introduce. This is followed by sections examining the impact of trade promotion efforts, and how a border might impact trade that is driven by public procurement, before turning to issues for business.

Scotland's trade with the rest of the UK dwarfs its trade with other countries.

4.1.1 Scotland's trade – the big picture

Scotland's trade with the rest of the UK dwarfs its trade with other countries. In 2012 non-oil exports to the rest of the UK stood at £48 billion, or 38% of non-oil GDP, 2.3 times greater than international non-oil exports. Partly because of the decline of the internationally oriented electronics industry in Scotland, this ratio of exports to the rest of the UK relative to overseas exports climbed from a factor of less than 1.5 in the late 1990s to its current level of around 2.3 in the middle of the last decade. In other words, exports to the rest of the UK accounted for over 90% of total Scottish export growth over the period.

Scotland's imports from the rest of the UK totalled £59 billion in 2012, or 47% of non-oil GDP, a ratio that has been relatively steady over the last decade. Scotland therefore currently runs a non-oil trade deficit with the rest of the UK of around 9% of non-oil GDP, down from around 15% of GDP at the turn of the century.

Scotland's non-oil exports to the rest of the world stood at £20.9 billion in 2012. When the estimated value of oil and gas exports of £30 billion in 2012 are included, total Scottish exports in 2012 amount to around £100 billion, with Scottish exports in total equivalent to two-thirds of GDP (including the output of Scotland's geographic share of North Sea production). On this basis, Scotland enjoyed a trade surplus of around £19 billion in 2012, or 12% of oil-inclusive GDP.

No official estimate of Scotland's balance of payments is available, but the profit flows to North Sea operators and those of foreign-owned businesses operating in Scotland, including the whisky industry, would act as a substantial offset to this trade surplus for an independent Scotland.⁷⁶

Box 4.4 at the end of this chapter presents more detailed statistics on the nature of Scotland's trade flows.

4.1.2 Different trade drivers for different sectors

Traditional views of the drivers of trade between economies point to the dissimilarities in the goods and services that individual economies are best suited to produce. This view of comparative advantage gives a good explanation of, for example, commodity exports by resource-rich economies or specialisation by an economy in specific goods for which its attributes, in terms of climate, location or traditions, make it particularly suited. For example, much trade between the advanced and the emerging economies is likely to be driven by such factors. This comparative-advantage description of trade explains Scottish oil, electricity, whisky, and some parts of food and textile exports well – perhaps approaching 60% of total Scottish exports by value.

⁷⁶ See for example, Brian Ashcroft, "Sterling and Scottish Independence", Scottish Economy Watch, last modified 26 April 2013, accessed 25 March 2014, <http://www.scottisheconomywatch.com/brian-ashcrofts-scottish/2013/04/sterling-and-scottish-independence.html>.

While comparative advantage is one driver of trade, the evidence from export and import data shows that in many cases an economy both exports and imports similar goods and services. For example, Scotland's biggest non-oil exporting sector is financial services. In 2009 its exports from Scotland totalled £6.1 billion. At the same time Financial services imports stood at £5.3 billion, with the bulk of this two-way trade occurring between Scotland and the rest of the UK. Similarly, Scotland exported £1.9 billion of goods and services from the Machinery & equipment sector, while at the same time importing £1.7 billion of products from the same sector.⁷⁷

This type of observation supports a more nuanced view of the drivers of trade. This emphasises the impact of economies of scale, and the increasing returns they offer to larger production units, as a force behind the concentration of certain industries and their supply chains in particular locations.⁷⁸ In these explanations of trade patterns, the size of the domestic market and transport costs associated with the product are important considerations. Other strands of this way of thinking about drivers of trade emphasise the role of individual firms. Leading firms in a sector are able to thrive in an international marketplace, but second-tier competitors find it hard to develop export customers and suffer from the penetration of more able foreign competitors in their domestic marketplace.⁷⁹ This approach also recognises that many businesses, even in sectors where there is considerable international trade, rely solely on their ability to compete in their domestic market, a characterisation that is likely to apply to many SMEs.

The implication is that for any given region in an advanced economy, success in international trade is likely to be heavily dependent on its attractiveness to leading firms. This will depend in turn on a range of factors whose importance varies by industry type. In addition to the size of the domestic markets and transport costs, these are likely to include the availability and cost of relevant skills, the strength of the local supply chain and the local economic environment, including the ease of doing business, input costs such as energy, and corporate taxation.

For those parts of Scottish trade driven by comparative advantage, the country's constitutional arrangements are likely to be of only minor significance as long as the overall environment remains business friendly, with currency arrangements stable and continued EU membership. Scotch whisky needs to be made in Scotland, and Scottish provenance is important in many segments of food and food processing. However, for that part of trade that relies on highly productive leading firms with a range of location options, independence could affect levels of production and future investment plans in Scotland. An independent Scotland that delivered an attractive business environment, a favourable tax regime, and easy availability of high-quality skills could be attractive to firms for whom UK markets are less important than international sales. Sectors such as machinery & equipment and computers & electronics might fall into this category. However, for those firms for whom the rUK market is important, independence could act as a deterrent to locating, producing or expanding in Scotland. As discussed in the next section, there is a substantial body of evidence that borders do impact on trade flows.

⁷⁷ Scottish Input Output Tables, 2009, <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/Input-Output>.

⁷⁸ "The Increasing Returns Revolution in Trade and Geography", Nobel Prize Lecture, Krugman, 2008.

⁷⁹ International Trade and Heterogeneous Firms, Melitz, Princeton University.

4.2 Implications of a rest of UK border for Scottish trade

The dominance of the rest of the UK in Scotland's non-oil trade flows is unsurprising given the integrated nature of the market, the shared culture, business practices and currency. International studies highlight the barrier that administrative borders represent, even in situations where the trading nations embrace free trade and share languages and cultures.

Work on Scotland, Catalonia, and the Basque country shows that trade patterns concentrate on the rest of the countries to which these regions belong much more than independent nations of a similar size focus their trade on any one entity. Sharing a nation is a "trade-enabling" technology.⁸⁰

Earlier work relates to Canada. The border between Canada and the US might be thought of as a minor impediment to trade flows between two countries that largely share a common language and culture and where the border does not involve geographic barriers but rather an administratively defined line. However, studies in the 1990s⁸¹ concluded that the typical Canadian province trades 22 times more with other parts of Canada than with US states of similar size and located a similar distance away. While this result is mostly based on data pre-dating the implementation of the North American Free Trade Agreement (NAFTA), even before the introduction of NAFTA, Canada and the US enjoyed a very liberal trading relationship.

A study of the OECD as a whole found weaker but still substantial border effects.

A similar study for the European Union also found that, despite 40 years of trade liberalisation to 1990, intra-regional exports within member states were seven to 10 times greater than international exports to EU partners of a similar size and at a similar distance to domestic regions.⁸²

A study of the OECD as a whole found weaker but still substantial border effects. After controlling for influences such as economic size, distance, geography, and linguistic ties, trade within the borders of an economy were of the order of two and half times more than the level of cross-border trade, though there was evidence that this bias had been declining in the period to 1994, which the analysis covered.⁸³

Speculating on the explanation for these results, one of the authors of the Canadian studies proposed that *"the answers are likely to lie in a whole mix of educational, cultural, historical, political, associational, emotional, and geographical ties based on migration and family ties, and supported by networks of transportation, communication, and education, along with the cherished portability of health care and pension rights, if not beer"*.^{84, 85}

In addition to this, it has been suggested that home bias may be due to the growing vertical specialisation within multi-stage supply chains involving *"the increasing interconnectedness of production processes in a sequential, vertical*

80 "Regions are not countries: a new approach to the border effect", Working Paper, Comerford & Mora, Universities of Stirling and Edinburgh, (2013)., [DATE?].

81 "National Borders Matter: Canada-US Regional Trade Patterns", McCallum, *The American Economic Review*, Vol 85, (June 1995) and "Do National Borders Matter for Quebec's Trade?", NBER Working Paper No. 5215, August 1995.

82 "National borders and international trade: evidence from the European Union", Nitsch, *The Canadian Journal of Economics* (November 2000).

83 "Intra-national Versus International Trade: How Stubborn are Nations in Global Integration?", Wei, NBER Working Paper No. 5531, April 1996.

84 "Do National Borders Matter for Quebec's Trade?", NBER Working Paper No. 5215, August 1995.

85 Like trade, the evidence suggests that capital movements are also constrained by borders. See for example, "The Feldstein-Horioka Fact", Giannone and Lenza, ECB, Working Paper Series, No. 873, 2008.

trading chain stretching across multiple countries and regions, with each country or region specializing in particular stages of a good's production sequence".⁸⁶ This view is consistent with the model of trade driven by internationally capable firms that support, attract and develop a local supply chain.

Border effects may also have an impact on supply chains.

Border effects may also have an impact on supply chains. The trade data is only likely to capture that part of supply-chain trade that relates to transactions between different businesses. Intra-company trade, involving the movement of goods and services within related businesses, can be significant but difficult to observe in published data.⁸⁷ The evidence from the Czech and Slovak Republics (Box 4.1) suggests that supply-chain trade too is less extensive when borders exist.

Most of the analysis of border effects on trade relates to long-standing borders rather than between independent parts of a formerly unified economy. The emergence of the Czech and Slovak Republics from the previous Czechoslovakia in 1993 provides an example of the impact of independence on trade. However, there are caveats to this evidence. The formation of the two republics occurred not long after re-establishment of democracy in Czechoslovakia after the "velvet revolution" in 1989. There were considerable differences in economic structure between the regions that formed the two new countries and the creation of the new nations occurred at a time when trading relations were changing quickly with a sharp contraction in Soviet-bloc trade and an even more rapid expansion of EU exports.⁸⁸

Nevertheless, this example suggests that border effects can begin to develop when new borders are put in place, even in an atmosphere of mutual cooperation that seeks to minimise the economic costs of the new constitutional arrangements.

86 "Vertical Specialization and the Border Effect Puzzle", Yi, Federal Reserve Bank of Philadelphia, Working Paper No. 05-24, October 2005.

87 "Intra-Firm Trade: Patterns, Determinants and Policy Implications", Lanz & Miroudot, OECD Trade Policy Papers No. 114, 2011.

88 "The Stability of Monetary Unions: Lessons from the Breakup of Czechoslovakia", Fidrmuc, Horvarth, and Fidrmuc, *Journal of Comparative Economics*, 27, 1999.

Box 4.1: The evidence from the Czech and Slovak Republics

Prior to the creation of the two new republics the Czech Republic accounted for about half of Slovakian exports and imports, while Slovakia, with a population of around a half of that of its Czech counterpart, accounted for around one-third of Czech exports. Estimates suggest that these bilateral flows were 16 times greater than would have been expected between two independent states, but declined to about five times what might be expected between separate economies by 1997, not much above the estimated level of the bilateral trade-creation effects of EU membership at the time.⁸⁹ Despite the overall growth in the two economies, even by 2000 the value of both exports and imports was below the level in 1993, with Slovakia remaining more dependent on trade with the Czech Republic than vice-versa.⁹⁰

Researchers have identified three key causes of this decline in bilateral trade between the two new republics. First, and despite the establishment of a customs union between the two economies, the creation of a border resulted in new barriers to trade from administrative procedures and the creep of divergent technical standards. Second was

89 Ibid.

90 "Never Too Late to Get Together Again: Turning the Czech and Slovak Customs Union into a Stepping Stone to EU Integration", Kaminski and Smarzynska, World Bank Policy Research Working Paper 2954, 2003

the breakdown of the monetary union that was in part driven by capital flight of deposits from banks in Slovakia to those in the Czech Republic and the resulting devaluation of the Slovak koruna. Finally, the introduction of import taxes, quotas on drink imports, and technical certification procedures hit Czech imports to Slovakia.⁹¹

While disentangling the influences on trends at a product level is challenging given the restructuring of the Czech and Slovak Republics in the immediate aftermath of their birth, the example of the motor industry shows the influence that the creation of a border can have on sophisticated supply chains. The motor industry in both countries saw a substantial restructuring and modernisation, driven largely by Volkswagen, with the Czech Republic becoming the biggest automotive producer of the former Soviet-bloc countries, while Slovakia became the third largest. The share of EU-sourced parts and components in Slovakia rose from 36% in 1995 to 92% in 2000, with the share of Czech-sourced supplies falling from 51% to 4%. Only Slovak exports of engines to the Czech Republic expanded significantly. This led the researchers to conclude that the existence of a border has an impact on the choices made between domestic and foreign suppliers by businesses with extensive supply chains for sophisticated components.

“The existence of internal borders—even under customs union arrangements—has affected outsourcing strategies pursued by the major automotive foreign investor in both countries—Volkswagen Group. Otherwise, it is difficult to explain why so many local Czech firms have become an integral part of the supplier chain of Volkswagen and few, if any among Slovak firms provide inputs to Volkswagen in the Czech Republic.”⁹²

91 “Never Too Late to Get Together Again: Turning the Czech and Slovak Customs Union into a Stepping Stone to EU Integration”, Kaminski and Smarzynska, World Bank Policy Research Working Paper 2954, 2003.

92 Ibid.

Box 4.2: UK government quantification of Scotland-rUK border effects

HM Treasury have published an attempt to illustrate the impact of the “border effect” on trade between Scotland and the UK.⁹³ Accepting for the purposes of the calculation that Scotland and the rest of the UK remain in a currency union, the estimates, which are consistent with empirical results, show that Scottish non-oil exports could be expected to be 83% lower than the rest of the UK after 30 years, while exports from the rest of the UK to Scotland would be 77% lower. The effects are seen as building in the long term, resulting in a reduction in the real income of the Scottish economy of around 4% after 30 years, with small immediate effects given the social and cultural ties between Scotland and the rest of the UK. In this analysis the creation of a border would also be expected to lower migration flows in both directions between Scotland and the rest of the UK.

93 Scotland analysis: Macroeconomic and fiscal stability, HM Government.

4.2.1 Currency union influence on trade

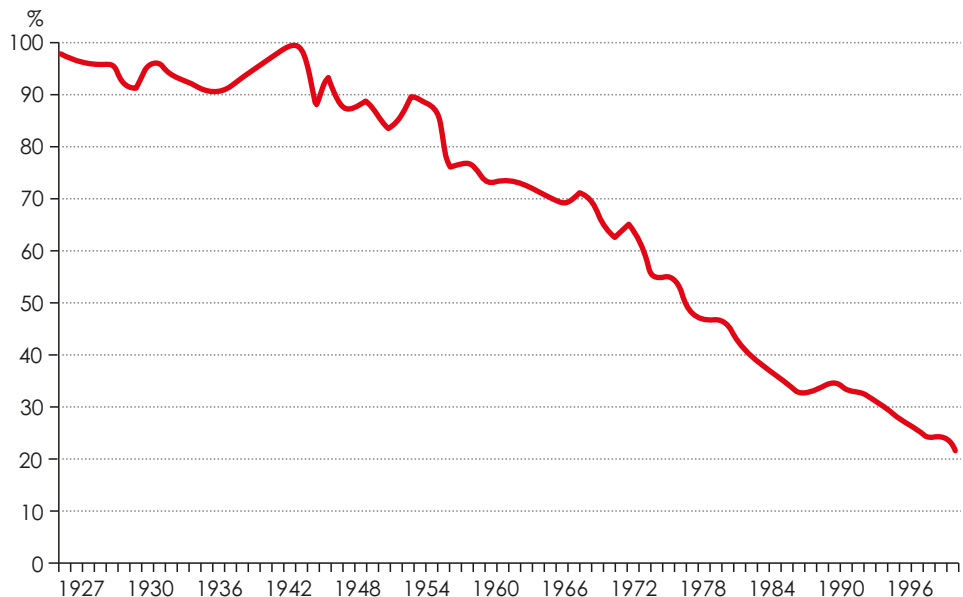
The nature of the settlement between an independent Scotland and the rest of the UK, as well as the timeline to EU membership and the terms of accession all have potential impacts on the development of Scotland’s trade in both the short and long term. An independent Scotland’s monetary arrangements remain

unclear, while there would be implications from any hiatus in EU membership or from an acceptance of Schengen membership as part of the accession deal.

Successful currency unions are seen as promoting trade among the constituents of the union by eliminating exchange rate risk, reducing transaction costs, and creating price transparency between markets. However, studies of the impact of the break-up of monetary union provide mixed evidence on the consequences on trade of the dissolution of a monetary union.

A case study approach⁹⁴ to the breaking of the link between sterling and the Irish pound in 1979 concluded that there was no firm evidence that the rate of decline in the UK share of Irish trade accelerated after the break. One explanation for the absence of a significant shift is the long-term adjustments to the structure of Irish trade that had already seen the share of Irish exports going to the UK fall from well over 95% in the early 1920s to under 40% by 1979.

Chart 4.1: Share of Irish exports going to the UK



Source: Thom and Walsh

The longer a monetary union has been in place the greater the benefits it delivers.

More general approaches to examining the impact on trade of a country's exit from a monetary union show significant effects.⁹⁵ Trade between economies in an established monetary union may be as much as three times greater than would be expected if these economies did not share a currency. The dissolution of a monetary union between two economies typically halves trade over a 30-year period. Moreover, there is evidence that the longer a monetary union has been in place the greater the benefits it delivers.⁹⁶

4.3 Trade promotion policies and impacts

The Scottish government argues that trade promotion policies tailored to the needs of Scottish businesses and targeted on companies that either want to start exporting or increase their export business would bring considerable benefits to

⁹⁴ Thom and Walsh, *The effect of a common currency on trade: Ireland before and after the Sterling link*, Centre for Economic Research, WP01/10, May 2001, University College Dublin

⁹⁵ "Does a Currency Union Affect Trade? The Time-Series Evidence", Glick and Rose, *European Economic Review*, 46, 2002.

⁹⁶ "Stylized Facts on Bilateral Trade and Currency Unions: Implications for Africa", Tsangarides, Ewencyk and Hulej, IMF Working Paper, WP/06/31, January 2006.

these companies and the economy. This focus on Scottish business needs and capabilities is seen as counteracting any disadvantages that flow from the less comprehensive coverage that Scotland's export promotion activities would have abroad compared with the current UK network.

The UK government points out that an independent Scotland would lose the more extensive coverage of the UK's international representation, both of trade promotion and diplomatic offices, and the "soft power" that comes from the UK's membership in global bodies such as the G8 and G20, along with the increased diplomatic face time this provides to advance business interests, such as reducing non-tariff barriers and mediating intellectual-property disputes.

The White Paper estimates that the initial running costs of an independent Scotland's overseas representation would be £90 million to £120 million. This represents 0.13%–0.17% of total Scottish export values in 2012, or 0.4%–0.6% of exports going to markets outside the UK. This total expenditure is above the average levels for export promotion agencies (EPAs) across the OECD, but the expenditure includes outlays on all the other consular tasks carried out by representative offices internationally.

Scottish Enterprise's Business Plan for 2013–16 shows spending focused on "Internationalisation, including export market development & Global Scot" at around £18 million in 2014/15,⁹⁷ or 0.03% of Scottish export values in 2012 (or 0.09% of international exports). UK Trade & Investment has total resources of £284 million in 2014/15; this represents 0.06% of UK exports.⁹⁸

Depending on the cost of running the non-trade-related aspects of an overseas representation, there is a risk that an independent Scotland would be spending less in relative terms on trade promotion than is currently the case for the UK. Against this, if Scotland's international offices were able to put more focus on trade and target efforts on potentially promising products and markets, there could be benefits for Scottish exporters. However, as discussed below, there is only weak evidence that export promotion activities are effective for developed economies.

4.3.1 How effective are publicly-funded trade promotion initiatives?

This section looks at the evidence on the benefits of publicly-funded trade initiatives. The available evidence points to only modest returns at best on international networks of offices.

Export promotion agencies (EPAs) perform a number of functions. These include:

- Image building using techniques such as advertising, promotional events, and advocacy;
- Export support services involving training, technical assistance, and capacity building in areas such as regulatory compliance, trade finance, logistics, and customs;
- Marketing through trade fairs and missions; and
- Research covering markets and contact databases.

⁹⁷ Scottish Enterprise Business Plan 2013–16, p 33.

⁹⁸ "Britain Open for Business", UKTI's Five-Year Strategy, <http://www.ukti.gov.uk/uktihome/aboutukti/aimsobjectives/corporatestrategy.html>, accessed on 25 March 2014.

With the rationale for development agencies in general, the case for publicly funded EPAs rests on correcting areas of market failure, often related to information requirements that appropriate government intervention can rectify.

EPAs can also help businesses, particularly SMEs, overcome barriers to entry in new export markets. These include access to social and business networks, technical standards, tariffs, quotas, and discriminatory taxation.

For Scotland and the UK, the fast-growing emerging markets where existing export shares are low relative to the size of the opportunity are likely to be a particular focus of export-promotion activities.

4.3.2 What impact do export promotion agencies have?

Attempts have been made to quantify the impact that EPAs, embassies, and consulates actually have on export performance. Studies in the early 1990s questioned the efficacy of EPAs, but with changed practices more recent research suggests that EPAs can stimulate exporting activity, with the literature pointing to approaches and levels of spend that are likely to offer the biggest impact. However, there is little research on whether the pay-off to EPAs raises standards of living generally; in other words whether the pay-off to society justifies the use of the funds supporting the EPA's activities. One study⁹⁹ of US exporters, for example, found that use of export promotion programmes increased the profitability of the firms involved but not their export sales, suggesting that the assistance acted simply as a subsidy to the firms involved.

A study of the impact of embassies and consulates on trade flows, covering 22 countries with data from 2002 and 2003, suggests that exports are 6%–10% higher for each additional consulate present in an export market. However, the biggest pay-off comes from the initial presence of an embassy in a market, with the impact on exports of additional consulates diminishing as more are opened.¹⁰⁰

In the literature on EPAs¹⁰¹ there is considerable debate on what represents best practice. Some researchers have argued that the evidence in support of trade shows and trade missions in building export sales is weak, but that cooperation on research, marketing and promotion among firms with common objectives can be effective. This analysis suggests that EPAs should target their efforts on businesses with new products or those that are entering new markets; there should be an emphasis on cost-sharing to ensure that the EPA programmes are used by those that are serious about exporting; and that support should only last for two or three years. But some others argue that instead of new products or new exporters, the focus should be on businesses that are on the cusp of being able to export or on existing exporters that have already learned many of the important lessons of successful penetration for overseas markets.

A study in 2005 tested the impact of EPA activities.¹⁰² The results reported impressive returns to export promotion activities, with a statistically significant result showing that a pound of spending is associated with a median increase

Exports are 6%–10% higher for each additional consulate present in an export market.

⁹⁹ "The Effect of Export Assistance Program Usage on Export Performance: A contingency explanation", Genctuk & Kotabe, *Journal of International Marketing* 9(2), 51–72.

¹⁰⁰ "The Foreign Service and Foreign Trade: Embassies as Export Promotion", Rose, NBER Working Paper 11111, February 2005.

¹⁰¹ As summarised in "Export Promotion Agencies: What Works and What Doesn't", Lederman, Olarreaga & Payton, World Bank Policy Research Working Paper 4044, November 2006.

¹⁰² Ibid.

in export values of £40. However, there were important differences between the returns for developing and developed nations. For the sub-sample of OECD developed economies the return was much less, at £5 for every £1 spent by an EPA; a result not statistically different from zero.

Other important findings were the following:

- There is weak evidence that domestic activities in capacity building may be more productive than international activities.
- The best returns come from focusing on large non-exporting firms.
- There are sharply diminishing returns to scale with EPA spending.
- The average EPA budget in the survey was 0.11% of export values, with the OECD average slightly lower at 0.09%–0.10%.
- Exports appear to be higher when the EPA focuses on non-traditional exports and concentrates on broad sectors at the level of manufacturing or services rather than on specific products.

4.4 Public procurement impacts on trade

Businesses on either side of a new border between Scotland and the rUK would be free to bid for the public sector contracts from the respective governments that are subject to EU directives on procurement. They could find it harder to secure contracts if home-country bias begins to operate. In addition, they may not be in a position to bid for contracts that are exempt from the cross-border tendering rules.

Such an impact on public procurement could be one component of border effects flowing from independence. If this occurs it could reduce overall levels of trade between Scotland and the rest of the UK and could potentially raise the cost of supplying public services and/or reduce their quality. Some businesses would gain from increased Scottish procurement from Scottish businesses, but equally there would be losers that would find an additional hurdle in securing business from rUK procurement.

Overall UK government procurement of £116 billion in 2005/06 supported 700,000 jobs across the UK; purchasing by the health, defence and education sectors accounted for 60% of this spend.¹⁰³ While there are no equivalent estimates for Scotland, data for 2004¹⁰⁴ show that Scottish businesses sold goods and services worth £10 billion¹⁰⁵ to the public sector in Scotland. That year the equivalent purchases for the UK as a whole were valued at £111 billion, though it is not possible to identify “exports” from Scottish businesses to the public sector in the rest of the UK. By 2009 Scottish businesses supplied over £13 billion of goods and services to the Scottish public sector.

EU directives on public procurement seek to ensure that companies from across the EU have the opportunity to compete for public contracts, to remove legal and administrative barriers to cross-border tenders, and to remove the scope for discriminatory purchasing by ensuring transparency. However, these directives on public procurement cover only a fifth of public spending on goods and services

¹⁰³ “The Market for Public Services in the UK”, CBI, 2008.

¹⁰⁴ The last year for which data is available for the UK on this basis.

¹⁰⁵ Intermediate consumption from the non-public sector by the Public, administration & defence, Education and Health & veterinary services, and Social work activities sector.

across the EU as a whole.¹⁰⁶ For example, a large share of public spending on goods and services for health, education and social service; contracts below EU threshold levels; and some expenditures on fuel, water and defence equipment are not subject to the procurement rules.

There remains a home-country bias in terms of public procurement.

While there is evidence of increasing import penetration in the public sector across Europe¹⁰⁷, international purchases form a much smaller proportion of total spending for the public sector than for the private sector. This is at least in part explained by the mix of goods and services that the public sector buys. Nevertheless, some authors argue that there remains a home-country bias in terms of public procurement.¹⁰⁸

106 "EU Public Procurement Legislation: Delivering Results, Summary of Evaluation Report", European Commission, 2011.

107 "Cross-Border Procurement Above EU Thresholds", European Commission, 2011.

108 "Discriminatory Public Procurement in International Trade", Trionfetti, *World Economy*, 23, 2000.

Box 4.3: Defence procurement

Defence – a driver of investment, jobs and innovation in central Scotland

The defence industry is a major part of the UK economy with significant linkages to the rest of the economy, and strong job-creation potential, sustaining high levels of investment.¹⁰⁹ The UK defence industry carries out a large R&D programme, and the evidence suggests that this creates "spillover" benefits to other businesses and sectors beyond the returns to investment in R&D garnered by the defence companies themselves. Defence industries in the UK are also successful exporters. Exports in 2007 accounted for nearly a quarter of the defence industry's turnover.

Scotland is home to a cluster of firms involved to a greater or lesser extent in defence contracts, with estimates for the mid-2000s showing that around 5% of manufacturing jobs in Scotland were in defence-related activities. Only the South-West and the South-East have a higher proportion of employment in manufacturing devoted to defence.

The BAE shipyards on the Clyde are an important part of Scotland's defence-related industry. The results of a Fraser of Allander study of the economic impact of these facilities showed that the BAE shipyards at Govan and Scotstoun had an output multiplier of 1.55, indicating that for every £1 million of output produced by the shipyards, the Scottish economy produced £1.55 million in output. Furthermore, the study found that for every job in the shipyards, 1.68 jobs were supported elsewhere in the Scottish economy.

The engineering specifications developed for the Type 45 orders that the Clyde yards completed in 2013 involved the development of innovative solutions and new skills and techniques and academic/industry collaborations. For example, the Universities of Newcastle and Strathclyde combined with BVT to help develop the high-tensile but light steel demanded by project requirements. The huge volume of optical fibre and cabling and computer control systems required for the project required the active involvement of the supply chain. This involvement has further developed "backwards and forwards" transferable skills with applications in the power industry, including areas such as wind turbines, as well as information technology (broadband and computer control systems) contributing to the maintenance and further development of the UK's high-technology skills base.¹¹⁰

109 "The economic case for investing in the UK defence industry", Oxford Economics, August 2009

110 Economic case for investing in the UK defence industry, Oxford Economics, August 2009

The White Paper – defence procurement

The Scottish government's White Paper states that an independent Scotland would seek to maximise the economic impact of defence spending, while also entering into joint-procurement arrangements with the rUK government. According to the White Paper, Scotland benefits by less than its population share from that part of defence procurement that is exempt from EU competition rules, having received £3.2 billion out of £60 billion of these contracts over the 2007/08 to 2011/12 period. The defence budget would be used to support procurement in Scotland, consistent with EU rules; support defence-related R&D; and to support SMEs, including their international marketing. The White Paper also notes that the EU Defence Procurement Directive has the aim of opening up the defence equipment market in the EU to competition.

The White Paper sees joint procurement, for example in terms of ships, in the interests of Scotland and the rest of the UK, and would preserve the strengths of defence industries around the whole of the UK. Joint orders would maintain the expected numbers of jobs in the defence industries sector, including shipbuilding, and support companies as they seek to expand their business internationally.

UK Government views on defence procurement

The UK government states that over the 10 years from 2012/13, the Ministry of Defence (MOD) will spend almost £160 billion on new equipment and data systems, and their support. It is argued that many contractors in the UK benefit from contracts exempted from EU procurement rules for national security reasons, which are placed or completed within the UK.

The UK government points to the substantial industrial footprint of defence contractors in Scotland that are sustained by UK defence spending, with the MOD the primary customer for the shipbuilding industry in Scotland. In addition, the UK government points out that MOD plans for complex warships currently include proposals for a Type 26 Global Combat Ship programme, arguing that there are already 300 jobs in Scotland directly linked to this programme, but that the decision of where the ships will be built will not be taken until the middle of the decade.

The UK government paper on the defence implications of independence also warns that companies based in an independent Scotland would no longer be eligible for contracts that the rUK chose to restrict to domestic suppliers for national security reasons. In cases where there is open competition this would involve pitching for business in competitive international markets without the UK's international reputation in defence markets.

Defence procurement – assessment

There is much uncertainty on how independence would impact defence procurement. An independent Scotland and the rUK would continue to share many common security concerns. This, along with Scotland's specific facilities and skills, for example in shipbuilding, argues for joint procurement between Scotland and the rUK. Against this, the rUK defence budget dwarfs that of an independent Scotland, and the key defence contractors generally have facilities on both sides of the border. To maximise their long-term prospects of winning rUK defence contracts these contractors may emphasise the development of their rUK sites in their investment and personnel plans.

There is also a question over the nature of the defence contracting in an independent Scotland. The needs of a Scottish defence force are unlikely to require as many

technologically cutting-edge big-ticket items.¹¹¹ This could have implications for the R&D investment undertaken by defence-related businesses in Scotland, and in turn the spillovers from such investment into the local supply chain.

¹¹¹ Brad MacKay, "Business and Independence: Defence Industry", Future of the UK and Scotland, ESRC, last modified 7 January 2014, accessed 25 March 2014, <http://futureukandscotland.ac.uk/blog/business-and-independence-defence-industry>.

4.5 Issues for businesses

Though the evidence is fragmentary and circumstantial, it seems unlikely that the creation of an independent Scotland would leave trade flows unaffected. As with the discussion about the economic impact of independence, much depends on the settlement agreed between Scotland and the rest of the UK, on the terms and timetable under which Scotland would become a fully-fledged EU member, and the policies adopted by successive Scottish governments.

The economic analysis suggests that factors that will impact on the trade effects of independence include the:

- Stability and credibility of the new currency arrangements.
- Attractiveness of post-independence Scotland as a location for sector-leading firms likely to be engaged in cross-border trade.
- The nature of the border between Scotland and the rest of the UK.
- The reaction of buyers (on both sides of the border) to the creation of a new economic border in terms of:
 - trade flows for final products and the degree of home-country preference for less commonly internationally traded products, such as some areas of services, including financial services;
 - the purchasing preferences of buyers in cross-UK and multinational supply chains; and
 - the degree of cooperation/joint purchasing by public sector purchasers.
- Success of an independent Scotland's export promotion initiatives relative to those currently undertaken for Scottish-based businesses by UK and Scottish agencies.

There is insufficient evidence on which to build out a fully quantified understanding of these effects, with the potential for impacts on trade flows also dependent on sector characteristics. For example, sector-leading businesses selling into markets where factors such as price, quality, and after-sales service matter much more than point of origin would seem to have little to fear from the creation of a border between Scotland and the rest of the UK. For many Scottish manufacturing companies that sell into the rest of the UK, this seems likely. Only if border controls were onerous or Scotland adopted currency arrangements that proved volatile against sterling would the border impediments to trade begin to build.

However, there are important Scottish exports for which there could be strong home-country biases. Retail financial services is one area where this could occur, with clear evidence of reluctance among financial advisers to recommend cross-border products.¹¹²

¹¹² "Consumer Appetite for Crossborder Shopping in Financial Services, A Report Prepared for the FSA", YouGov, 2010.

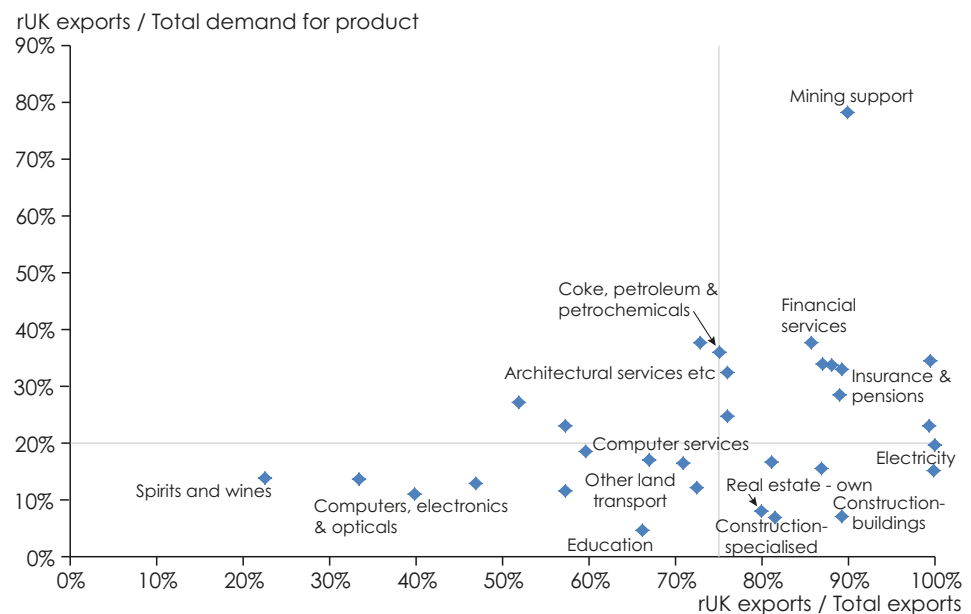
Divergent regulation or policies in a post-independence world are another factor that could impact individual sectors.

Divergent regulation or policies in a post-independence world are another factor that could impact individual sectors. The electricity sector is a clear example where the level of exports could be vulnerable in the longer term to changes in renewable targets and rUK decisions on generating capacity and imports from alternative sources, for example France, or even Iceland.

Differences in sales tax rates (VAT and excise duties) could also have an influence, with online sales particularly sensitive to differentials in tax rates.

Chart 4.2 seeks to identify those sectors where the rest of the UK export market is particularly important for individual sectors of the Scottish economy. For Scottish sectors exporting more than £400 million of goods and services, the x-axis shows the share of these exports that went to the rest of the UK in 2009, while the y-axis shows the share that these rUK exports represent of total sector demand. Sectors where rUK exports dominate export sales and where rUK exports are a relatively high proportion of total demand might be most vulnerable to border effects.

Chart 4.2: Which Scottish sectors are particularly dependent on rUK markets?



Source: Oxford Economics

Ten of the 31 sectors of the Scottish economy with exports in excess of £400 million in 2009 fall into the north-east quadrant of the chart. This quadrant contains those sectors with above-median rUK exports within total exports and above median rUK exports as a proportion of total demand. These sectors are Mining support, Financial services, Insurance & pensions, Bakery products, Wood products, Travel services, Architectural services, Meat processing, Business support services, and Gas.

Product characteristics may offer protection from border effects for some of these sectors – for example, Scotland’s comparative advantages seem likely to be more important for the Gas and Wood products sectors. However, this type of mitigating effect is less likely in the financial and business services sectors, where the rUK market plays an important role.

While it is possible to identify the factors that could determine the trade effects of independence, the size of these effects is unknowable in advance, with many taking time to develop. However, given that Scotland's non-oil exports to the rest of the UK are well over twice as great as those to the rest of the world, the size of the border effect is likely to be critically important to overall impacts on trade. For every percentage-point drag created by border effects, Scotland's international exports would have to grow by double that rate to leave total exports unaffected. Moreover, the simple arithmetic does not take account of the adjustment costs this implies for individual companies. The likelihood is that businesses most affected by border effects will be in quite different sectors from those able to deliver international export growth.

But border effects are a two-way street, so opportunities can be created for Scottish businesses to supply the domestic market in place of rUK imports. Against this opportunity, however, is the risk that these suppliers are in some sense second best, say in price, quality, or innovativeness, compared with the supplies that would be available if no border existed. There would also be "knock-on effects" on consumers or other domestic businesses these new suppliers serve. In this way, Scottish consumers could lose some of the benefits that intra-UK trade brings.

The nature of the border between an independent Scotland and the rest of the UK is, in addition to the potential scenarios for currency arrangements discussed in Chapter 2, the most important factor that would impact trade to and from an independent Scotland. The spectrum of effects is large. In the White Paper vision of membership of a common travel area, with much shared regulation and product standards, it seems likely that border effects would be very muted in the short term. Longer-term drift in administrative procedures and regulations could build a declining "border effect" compared with what would have happened had Scotland remained part of the UK. However the adjustment would likely be relatively slow, with effects on overall trade volumes and GDP likely swamped by other global and domestic influences.

There is a risk that one of the costs of an independent Scotland's acceptance as a fully-fledged EU member is agreement to become part of the Schengen area, perhaps after a transition period. This would necessitate formal border procedures between Scotland and the rest of the UK that would inevitably raise the cost of cross-border business. This would increase and accelerate the size of border effects on trade, reduce the competitiveness of marginal Scottish suppliers to the rest of the UK market, and erode the benefits that Scottish buyers gain from rest of UK imports. Again, these would not be big-bang effects, but rather a slow-burn loss of the "gains from trade" in an integrated market. In addition, for individual businesses the existence of a more formal border might lead to changes in location decisions for new investment or for the location of specific activities.

Some offset to this negative effect would come from the increased ease with which movement would occur between Scotland and the other members of the Schengen area. If these benefits are of a similar order to the costs involved with trade with the rest of the UK, then the net impact would still result in net losses for Scotland in the short term until full adjustment to the new constitutional arrangements occurs. For example, Scotland's export values to members of the Schengen area were only 23% of the value of those with the rest of the UK. As

well as influencing trade itself, this could have an impact on the type of function that locates in Scotland. High-level business functions that require extensive travel between Scotland and the rest of the UK could be disadvantaged, with an incentive for those businesses whose rUK activities are more significant than their domestic Scottish operations to consider relocation.

Even if Scotland does not join the Schengen area, a similar scenario could evolve if the rest of the UK – with its different limits for migration levels from an independent Scotland – reneges on the common-travel-area agreement, resulting in more onerous border checks on travellers. However, it is also true that the UK and Ireland have maintained a common travel area over a long period of time.

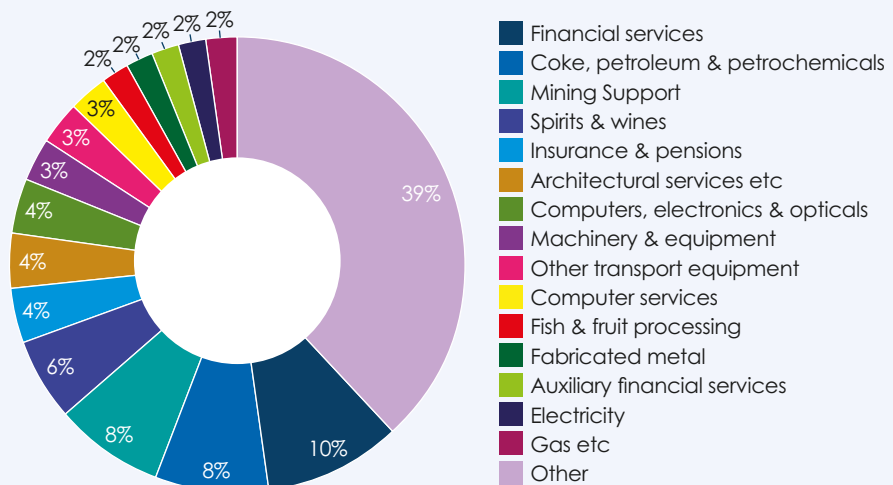
High-level business functions that require extensive travel between Scotland and the rest of the UK could be disadvantaged.

In examining the risks that businesses must consider in relation to the consequences of Scottish independence, there are a range of other possibilities. Scotland may find it more difficult to join the European Union; rUK may subsequently decide to leave the EU, with Scotland having recently joined; or both Scotland and rUK may seek a future that focuses on free trade with the EU but outside formal membership. These possibilities are currently of the nature of “tail risks”. Any of these outcomes, however, would lead to border effects on trade, with potentially sharper and longer-lasting effects than those outlined in the common-travel-area and Schengen-type scenarios.

Box 4.4: Scotland's trade by sector

According to data from 2009, nine sectors of the Scottish economy accounted for 50% of total exports. These were Financial services (£6.1 billion), Coke, petroleum & petrochemicals (£3.9 billion), Mining support (£4.9 billion), Spirits & wines (£3.6 billion), Insurance & pensions (£2.7 billion), Architectural services (£2.4 billion), Computers, electronics & opticals (£2.1 billion), Machinery & equipment (£1.9 billion), and Other transport equipment (£1.8 billion). All of these sectors, with the exception of Spirits & wine and Computers, electronics & opticals, rank in the top eight sectors exporting to the rest of the UK; these two were replaced by Fish & fruit processing and Computer services.

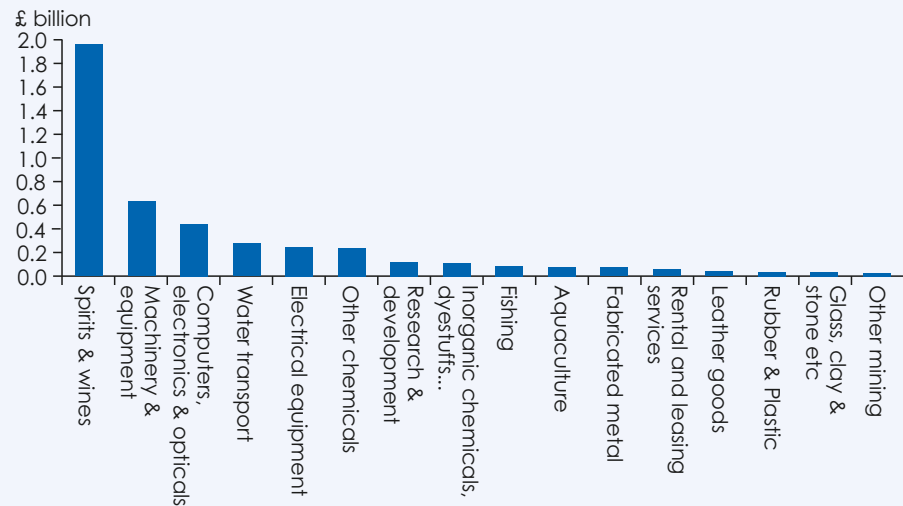
Chart 4.3: Scotland's non-oil exports, 2009



Source: Scottish Government

Among the large exporting sectors, only Spirits and wines, Machinery equipment, Computers, electronics & opticals, and Fabricated metals had bigger foreign sales than those to the rest of the UK, though further down the ranking, the Water transport, Electrical equipment, Other chemicals, Research & development, and Inorganic chemicals, dyestuffs & agrochemicals were among sectors exporting more internationally.

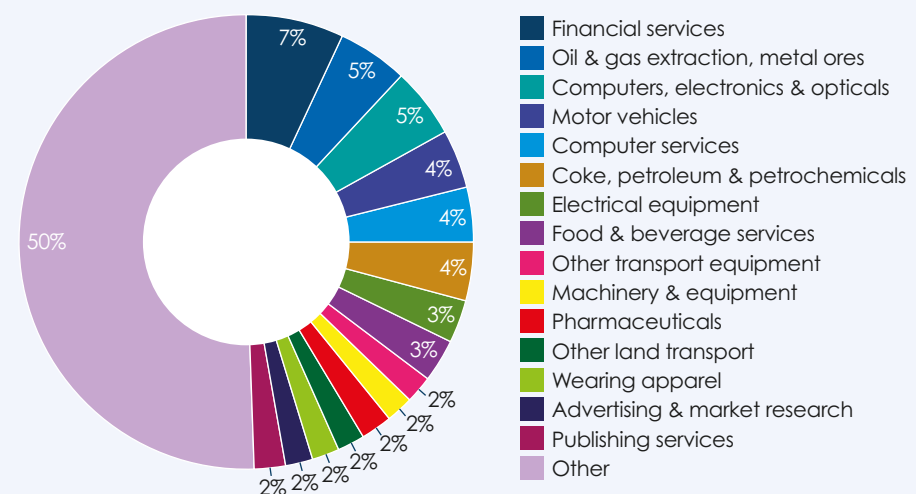
Chart 4.4: Sectors exporting more to international markets than to the rest of the UK, £million, 2009



Source: Scottish Government

The data for 2009 show that Scotland's imports are less concentrated by sector than its exports. Whereas around eight industries account for half of exports (whether measured in total or disaggregated in their rUK and international components), 15 industries contribute half of Scotland's imports. The biggest of these are Financial services (£5.3 billion), Oil & gas extraction, metal ores (£4.0 billion), Computers, electronics & opticals (£3.8 billion), Motor vehicles (£3.1 billion), and Computer services (£2.8 billion). A number of Scotland's key export sectors also feature as significant contributors to imports. These include Financial services, Computers, electronics & opticals, Computer services, and Coke, petroleum & petrochemicals.

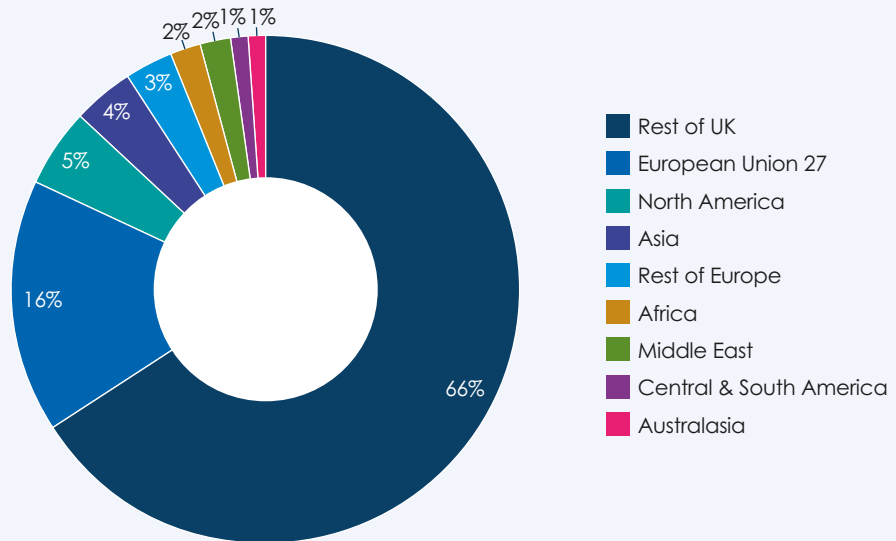
Chart 4.5: Scotland's non-oil imports, 2009



Source: Scottish Government

In 2012 two-thirds of Scottish non-oil exports went to the UK, with 16% destined for the EU and 5% going to North America.

Chart 4.6: Scotland's non-oil export markets by destination, 2012

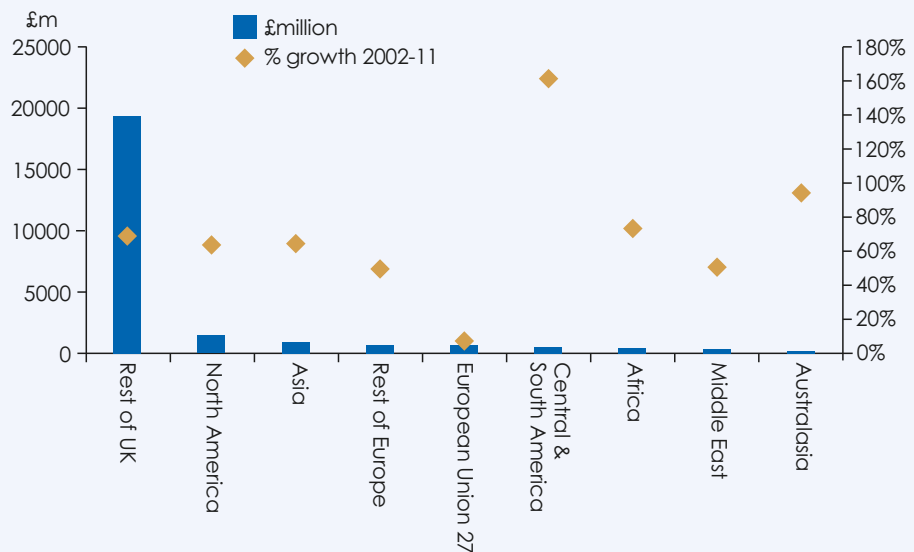


Source: Scottish Government

The UK has also dominated growth in the value of Scottish non-oil exports over the last decade. The increase of £19 billion, or 69%, is an order of magnitude greater than the increase in export values to any overseas market. The next-ranked market for growth of Scottish exports between 2002 and 2012 is North America, with values up by £1.5 billion or 63%.

In terms of percentage growth Central & South America (160%) and Australasia (94%) show the fastest growth, adding a combined £900 million to Scottish non-oil export values since 2002. This is greater than the growth in export values to the EU (ex-the UK) of only £800 million, or 7%.

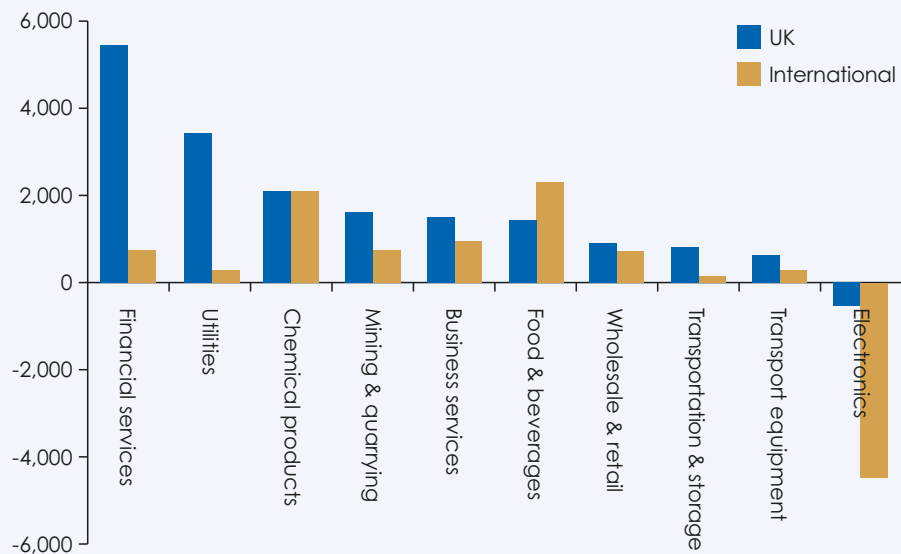
Chart 4.7: Growth in the value of Scotland's non-oil exports by destination, 2002-12



Source: Scottish Government

The biggest contributors to growth in the value of Scottish non-oil exports (overseas and to the rest of the UK) of £26 billion (54%) between 2002 and 2012 were Financial services (£6.2 billion), Chemical products (£4.2 billion), Food and drink (£3.8 billion), Utilities (£3.7 billion), Business services (£2.4 billion), and Mining and quarrying (£2.3 billion). However, Electronics exports shrank by £5 billion, or 73%. Among the substantial contributors to the growth in the value of Scottish exports, only in Food and drink (which includes whisky) and Chemical products did the growth in the value of international exports exceed that of exports to the rest of the UK.

Chart 4.8: Growth in value of Scottish non-oil exports 2002-2012, £ million



Source: Scottish Government

Box 4.5: Scottish Government policy proposals for trade

The Scottish government's White Paper states that *"Independence will enable the Scottish government to focus investment in Scotland's overseas representation in ways that will deliver key gains for Scotland's economy, including more targeted support for companies wishing to export for the first time or increase their existing level of exporting."*¹¹³ Boosting exports by manufacturing companies would be viewed as a key priority contributing to the aim of re-industrialising the Scottish economy.

Key to these proposals is the development of a Scottish overseas diplomatic and trade network to provide Scotland with *"the opportunity to promote and share our culture and traditions with nations across the world"*. The White Paper proposes significant investment of resources in the development of commercial opportunities for Scotland in key markets overseas. This would involve co-ordinated teams of trade experts and diplomats, opening up markets and assisting Scottish businesses to expand internationally.

The existing Scottish Development International (SDI) network of 27 overseas offices is seen as providing a firm foundation for independent Scottish international representation, promoting exports and investment in Scotland. It is proposed that this network would

¹¹³ Question 50, page 393, Scotland's Future, Your Guide to an Independent Scotland, Scottish Government.

remain in place, co-locating with an independent Scotland's diplomatic and consular presence. In cases where SDI is currently located in a country but not in its capital city, a Scottish embassy or political mission would be established to supplement and complement the work of the trade offices. The planned initial locations for embassies/ political missions include London, Beijing, Berlin, Brasilia, Canberra, Delhi; Dublin, Islamabad, Madrid, Moscow, Paris, Pretoria, Seoul, Tokyo, Warsaw, and Washington. Additional sites in Asia, the Middle East, South America, Africa, and Europe would also be identified. It is also proposed that an independent Scotland would play a full role in the international organisations that set the standards for trade, while an independent Scotland will be able to engage directly in the EU and participate in key negotiations surrounding third-party trade agreements and access to international markets. In total it is proposed that an independent Scotland would have an initial network of 70–90 overseas offices, with initial running costs of £90 million to £120 million.

An independent Scotland is seen by the White Paper as enjoying increased opportunities to build an international reputation for culture, heritage, and creativity. For example *“The winter festivals either side of Christmas—St Andrew's Day, Hogmanay and Burns Night—are already internationally recognised, celebrated by the Scottish diaspora, and provide ideal platforms to develop Scotland's public diplomacy abroad, whilst showcasing Scotland's customs and produce to new audiences.”*¹¹⁴

The White Paper identifies the food and drink, education, energy, and media sectors as potential beneficiaries of increased efforts to promote exports.

Food and drink: an independent Scotland would prioritise tackling specific barriers to Scottish produce, citing exports of beef to Asia, and increase the resources behind export certification to help market Scottish produce on an integrated basis that would extend the reach of the Scottish brand.

- Education: the university sector has already developed an international presence, and the overseas and diplomatic trade network would promote Scotland as the *“educational and research destination of choice”*.
- Energy (electricity): Scotland is already a net exporter of electricity, with growing renewable capacity that can help avert the growing potential for a generation slowdown in the rest of the UK.
- Broadcasting: this is identified as a key economic sector that is growing rapidly; the White Paper states the belief that more can be achieved to boost Scotland's creative economy.

114 “Scotland's Future: Your Guide to an Independent Scotland”, Scottish Government, p 315.

Box 4.6: UK Government analysis of trade-related issues

In its analysis of international issues for an independent Scotland, the UK government emphasises that *“People in Scotland benefit from the UK's international networks and influence on the world stage, while having a devolved government in Edinburgh that is able to pursue the international aspects of its policies for Scotland alongside, and with the support of, the UK government.”*¹¹⁵

115 Scotland analysis: EU and international issues, HM Government

The UK government sees Scottish businesses benefiting from the active support of UK Trade & Investment's (UKTI's) 169 offices in over 100 countries. Businesses in an independent Scottish state would lose access to the UKTI network and the political weight the UK can bring to champion them. Moreover, "commercial diplomacy" is now a central plank of UK policy. This involves a significant shift of resources to strengthen bilateral and regional relationships with key emerging powers, with the aim of contributing to the UK's longer-term prosperity.

Through its ability to draw on the resources of the UK's international trade network and expertise, and with SDI's efforts from 26 offices in 15 countries, the UK government argues that Scotland *"gets the best of both worlds: the flexibility to target resources to priority areas overseas; as well as the strength and certainty provided by the worldwide reach and influence it has as an integral part of the UK. Scottish-based companies regularly form part of trade delegations that accompany UK ministers around the world. Companies based in an independent Scottish state would lose access to the global UKTI and wider FCO networks and to the UK government services to Scottish exporters and for investors into Scotland."*¹¹⁶

The UK is a member of the G7, G8, and G20—the key bodies of global governance. This membership contributes to the UK's strong voice in world affairs, from economic, finance, and trade policy to social, security, and environmental issues, all of which are important to Scotland. An independent Scottish state would not be eligible for individual state representation at these bodies.

With independence Scotland would no longer benefit from the UK's "soft power superpower" status that derives from its brand, reputation, and attractiveness. The UK is regularly recognised in international comparisons for its tradition of nurturing these activities and networks, and YouGov research has described the UK as a "soft power superpower".¹¹⁷ The UK brand is also considered to be strong in comparison with other nations around the world.¹¹⁸

The terms and timetable on which an independent Scotland would be able to enter the European Union are uncertain. This could involve Scotland joining the Schengen Area. The UK government's view is that membership of the border and immigration parts of the Schengen agreement is incompatible with membership of the Common Travel Area involving the UK, Ireland, Guernsey, and the Isle of Man. Scottish entry into the Schengen Area would necessitate border controls between Scotland and the rest of the UK, impacting freight flows crossing the Scotland-England border, estimated at 32 million tonnes by road in 2010 and 4 million tonnes by rail in 2010/11.¹¹⁹

Scottish exporters would lose the assistance that the UK's export credit agency (ECA) can offer, with no proposals for a Scottish export credit agency set out in the Scottish government's White Paper. The ECA supports exports by providing insurance to UK exporters and guarantees to banks in respect of export credit loans. This protects exporters against the risk of non-payment by overseas buyers. This offers UK exporters a level playing field with exporters from other countries' equivalent schemes.

116 "Scotland analysis: EU and international issues", HM Government

117 "Britain: A soft power superpower?", YouGov, October 2012, yougov.co.uk/news/2012/10/15/britain-soft-powersuperpower.

118 Anholt-GfK Nation Brand Index 2012, www.gfk.com/Documents/Press-Releases/2012/20121023_NBI_2012_final.pdf.

119 "Scotland analysis: Borders and citizenship", HM Government.

There could be certification issues for Scottish food producers in a post-independence world. The UK government negotiates market access for UK agri-food products through the Department for Environment, Food and Rural Affairs (Defra) as the competent authority for the UK. An independent Scottish state with its own separate authority would need to renegotiate market access for its products, as it could no longer export under UK export health certification. These market-access agreements generally take several years to complete. Products to which sanitary and phytosanitary protocols apply (i.e., those that carry a potential risk to human, animal, or plant health) cannot be exported without valid export health certification.

5

Private sector pensions and independence

Summary

A less obvious but vastly important effect of independence on business will be that on employee pensions. Beneficial or adverse effects could have substantial consequences both for Scottish citizens' standards of living in retirement and businesses that employ them.

Independence would add new complexities to both defined-benefit and defined-contribution pensions. If, as is widely expected, an independent Scotland suffers higher yields on its sovereign debt, there could be a reduction in the pension deficits of Scottish defined-benefit schemes—a windfall for Scottish businesses.

However, for schemes that operate across the whole of the UK, EU cross-border rules could require faster elimination of deficits than is currently planned. The costs this implies could have important consequences for businesses and their employees. Businesses may respond by splitting their schemes, with an associated increase in administrative costs that would fall on firms. In consequence, they may reduce the level of benefits on offer to staff. Or businesses may seek to buy out Scottish beneficiaries, potentially making their future pension benefits less certain.

Independence would also introduce a new layer of cost and complexity for businesses with employees on both sides of a new border, dealing with separate regulators and potentially with two different pension protection funds (PPFs). And the separation would create a new risk: a Scottish PPF, lacking the depth of a UK-wide scheme, would also be more easily swamped by a single large pension fund insolvency. Finally, when it comes to defined-contribution schemes, the creation of a Scottish currency (or eventual adoption of the euro) could lead to currency mismatches between assets and liabilities—a new risk that many savers would be ill equipped to handle.

Overall, the consequences of independence for pensions are vastly complicated. But on balance it seems inevitable that in a smaller market, with the attendant overhead costs, pensions in Scotland would carry new costs that would have to fall on either businesses or their employees.

Independence would have impacts on the operation of pension schemes in Scotland.

5.1 Introduction

Independence would have impacts on the operation of pension schemes in Scotland. This chapter considers what these impacts might be and the implications that they hold for businesses and their pensioners. It starts by setting out the Scottish government's proposals for state pensions and comments on pension issues by the UK government. This is followed by a section discussing the demographic challenge that Scotland and the UK face, before turning to sections on the impact that independence would have on defined benefit and defined contribution pensions. A section on implications for business concludes.

5.1.1 Scottish Government proposals on pensions

The White Paper promises to honour accrued rights for the state pension. In line with the UK government plans, the White Paper foresees the introduction of a

single-tier pension from 2016, set at a rate of £160 per week, £1.10 above the rate currently expected for the UK. This full rate would be paid to people with a record of 35 years of National Insurance contributions or credits. The flat-rate pension would have a “triple lock” guarantee, at least for the term of the first post-independence parliament. While it is accepted that the state pension age should rise to 66 by the end of the decade, the White Paper expresses concerns about a subsequent rapid rise to 67, and proposes an Independent Commission to examine the appropriate state pension age for Scotland.

Plans already being put into place by the UK government for auto-enrolment in workplace pensions would be continued in an independent Scotland, with the UK's National Employment Savings Trust (NEST) to be replaced by a Scottish Employment Trust, with the aim of increasing the proportion of the workforce that save for pension in Scotland from around one half.

The White Paper indicates that a Scottish pensions regulator would be created. This body would work closely with the UK regulators and maintain a pan-UK approach to the regulation of private pensions. An independent Scotland would also aim to play its full part in the Pensions Protection Fund or establish a Scottish equivalent.

The Scottish government acknowledges that defined-benefit schemes would have to meet the requirements of the EU directive on Institutions for Occupational Retirement Provision (IORP). This requires pension funds that receive contributions from an employer in another EU state to be fully funded at all times. However, the White Paper argues that transitional arrangements should be put in place, and argues that the case for such arrangements is strong. The Scottish government sees the post-independence integrated financial services market covering the whole of the UK as quite different from the more general case for which IORP was designed. Moreover, these transitional arrangements would be in the interests of all stakeholders, while the interpretation of the directive varies across member states with the transitional arrangements of three years' grace for cross-border schemes covering the UK and Ireland cited as a precedent.

The uncertainties created by independence would damage trust for rUK holders of Scottish pension products, and vice-versa.

5.1.2 UK Government analysis of the implications of independence for pensions and Scotland's pensions' industry

The UK government argues that new barriers to business created by an independent Scotland could have a direct impact on pensions:

- Around 70% of pension products bought by Scottish people are from firms from the rest of the UK.
- The creation of a border would have an impact on the Scottish financial services sector, with the Scottish life and pensions industry accounting for 24% of the UK sector while only 9% of sales of pension products by Scottish financial services firms are in Scotland.
- Pension products involve a long-term commitment and a high degree of trust. The uncertainties created by independence would damage this for rUK holders of Scottish pension products, and vice-versa.
- To date there has been little success in EU attempts to create a single market in pensions, suggesting that divergences in terms of tax, labour law, social security, and product and market regulation are important barriers to cross-border sales.

- Selling pensions in the EU involves passporting domestic regulatory approvals to cross-border markets. This involves considerable set-up and on-going costs that increase the more divergent the legal, tax, and administrative systems. These costs could evolve into a substantial barrier to trade in pensions across a Scotland–UK border.
- The Pension Protection Fund might have to be replicated in an independent Scotland, but it would be difficult for Scotland, with around 7% of UK schemes, to maintain an effective standalone protection fund. The UK has a large number of defined-benefit schemes. This spreads the risk, reducing the size of the Pension Protection Fund levy, and protects against the impact of insolvency of a large scheme.

5.2 Scotland's ageing demographic profile and the affordability of the state pension promise

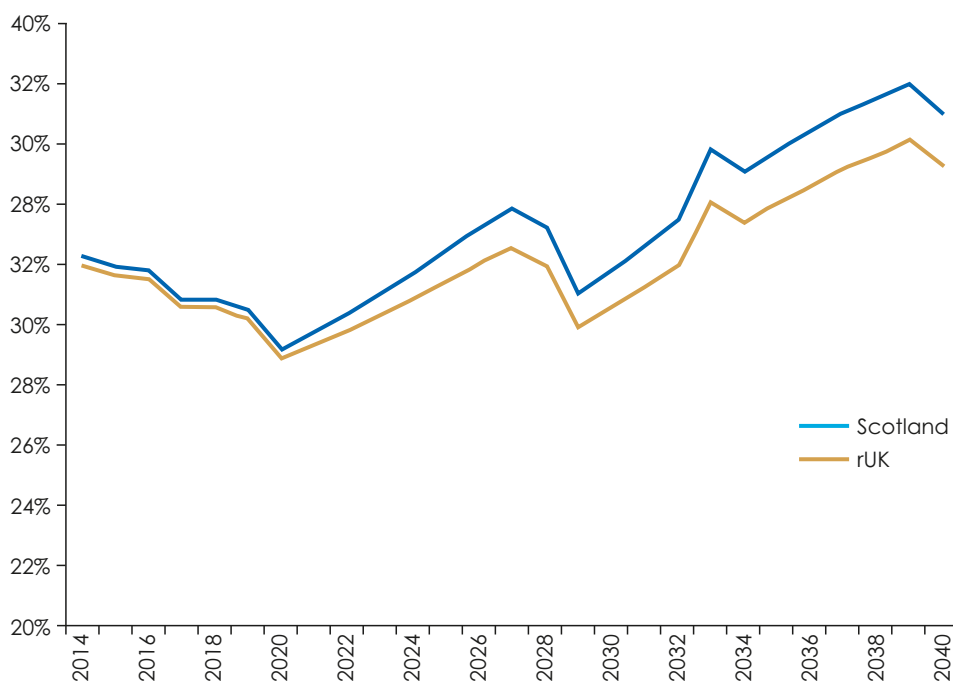
Scotland's demographic profile differs somewhat from that of the rest of the UK. Official projections show the country's population growing by an annual average rate of under 0.3% over the next 25 years, compared with rest-of-UK growth of nearly 0.6%. Moreover, Scotland's population is slightly older than the rest of the UK. For example, Scotland's median age is projected to rise from 40 in 2014 to 43 in 2040. For the rest of the UK, the rise over the same period is from 38 to 41. Scotland also has a lower life expectancy than the rest of the UK: life expectancy at birth is now 76 years for men and 81 years for women. The comparative figures for England are 79 and 83.

These population dynamics have implications for the size of the retired population relative to the working-age population. Currently, the proportion of the population over state retirement age relative to those between 18 and retirement age is very similar in Scotland and the rest of the UK, at around 32%. The raising of the state pension age, which is already under way for women, and which will start to impact men from 2018, means that this ratio is projected to dip in the years to 2020, falling to around 29% north and south of the border. However, on current projections and taking account of further increases in the state pension age linked to anticipated lengthening of life expectancy, by 2039 projections suggest that this ratio will have risen to 38% in Scotland compared with just over 36% in the rest of the UK.

Both Scotland and the rest of the UK therefore face the challenge of paying state pensions to a growing cohort of retirees relative to the population of productive age. An independent Scotland would face a greater challenge than the rest of the UK, even on the assumption that successive Scottish governments implemented the increases in state pension age currently planned by the UK government. While it might be true that the cost of providing an equivalent state pension to the average person in Scotland is lower because of earlier expected mortality, it is nevertheless the case that the overall burden on an independent Scottish economy will be greater because of the relatively larger number of people over the state retirement age.¹²⁰

¹²⁰ Funding pensions in Scotland: would independence matter? Bell, Comerford, Eiser, NIESR forthcoming

Chart 5.1: Proportion of population in receipt of state pension relative to the 18–retirement age population



Source: Oxford Economics, GRO for Scotland, ONS

Given the pressures on state pensions, the availability and strength of employee-sponsored pension plans is likely to play a critical role in supporting the purchasing power of pensioners.

5.3 Impact of independence on defined benefit pension schemes

Independence would create a range of both strategic and administrative issues for defined-benefit pension schemes. These include the following:

- Implications of the IORP for those schemes with members or survivors north and south of the border.
- The reorganisation of pension protection and regulations in an independent Scotland and the costs and benefits involved for members and sponsoring businesses.
- The determination of the discount rate to be applied to Scottish liabilities of defined-benefit pension schemes.
- The availability of appropriate assets to fund for Scottish liabilities.
- The possibility of a currency mismatch between assets and liabilities.
- Potential impacts on labour mobility.
- The impact of administrative costs on defined-benefit pension schemes and who might bear these costs.

5.3.1 Implications of IORP

In terms of the IORP, a cross-border scheme is one that has its main administration in the EU/ European Economic Area (EEA) and has European members or European survivors.

IORP covers schemes where:

Members are people whose contractual place of work is/was either in the home jurisdiction or is/was sufficiently located in another member state such that the employer is subject to social and labour laws covering occupational pensions and where contributions have been made by the employer to the pension fund. Seconded workers are not included in this definition.

Survivors are individuals who built up their benefits in another EEA member state and have benefits now or in the future paid by the scheme. If these are the only cross-border benefits for which the scheme is liable, buying them out would mean that the scheme no longer has to comply with IORP.

The IORP directive has a number of requirements for cross-border pension funds in EU and some European Economic Area (EEA) states that would impact defined-benefit schemes sponsored by companies with employees in Scotland and the rest of the UK should independence occur.

Currently, the requirements of IORP for cross-border pension funds include:

- Maintaining a fully funded position;
- Approval from the Pensions Regulator to operate a cross-border scheme;
- Full annual actuarial valuations; and
- Compliance with the social and labour laws of the home and other member states within which it operates.

Failure to comply with the requirements of the IORP could result in sanctions against the trustees of the scheme.

Regulations only allow for cross-border schemes to close any deficit over a period of two years.

The IORP also has potential implications for people who became non-UK members of a cross-border scheme after 2005. UK provisions – including the terms of preservation of short-service benefits; preservation of value for early leavers to protect the real value of benefits; calculation of transfer values; indexation;¹²¹ and assignment of pension rights – do not need to be applied.

Defined-benefit pension schemes operating only in the UK and suffering from a deficit against the assessment of future liabilities can implement a “recovery” process that can provide a grace period of up to ten years to close the deficit position. The transition arrangements for under-funded schemes that have to comply with the current IORP are much sharper. IORP regulations only allow for schemes entering into cross-border arrangements to close any deficit over a period of two years and to subject themselves to annual valuation exercises.

The impact of the IORP on schemes operating on both sides of a new border between Scotland and the rest of the UK are uncertain. There are a number of routes that individual schemes could explore if the IORP continues to require full funding of cross-border pensions schemes and this requirement is enforced in the case of Scottish independence. These could include:

- One-off payments into schemes from the sponsoring employer funded out of cash flow or from cash raised from the bond markets or shareholders;

¹²¹ The UK Government is currently examining the current indexation regime and whether to loosen the requirement of indexation on future pension accruals. See “Reshaping workplace pensions for future generations”, Department for Work and Pensions, November 2013

- Changes to the benefits underwritten by the scheme, such as moves toward “flexible pensions” that allow schemes to reduce the degree of inflation protection they offer.
- Transferring the assets of the scheme, perhaps by making a one-time payment or series of payments to insurance or other financial companies to buy out the liabilities.
- Splitting the scheme into Scottish and rest-of-UK schemes.

These are not costless actions. Arguably raising the cash to close a pension deficit only capitalises the flows that would have to occur over a more extended period for a purely domestic scheme. However, along with the administrative costs, there may be opportunity costs associated with investment and other spending foregone by the need to fund the pension scheme. The option value of closing a pension fund deficit over an extended period is also lost. This value comes from the possibility that trends in asset values and long-term interest rates will move in a manner that produces more favourable future valuations of the assets and liabilities of a scheme.

If scheme sponsors decide to change the nature of benefits offered by schemes there could be impacts on both existing pensioners and current scheme members. Moreover, the option of splitting schemes between Scotland and the rest of the UK would involve a degree of administrative complexity, costs in implementation, loss of economies of scale in future administration, and potential impediments to intra-company labour mobility between Scotland and the rest of the UK.

5.3.2 Capital market and currency considerations

The creation of an independent Scotland would have capital market implications for defined-benefit pension schemes, whether operating on a cross-border basis in compliance with the IORP or on a purely domestic basis.

The domestic government bond market is a foundation of defined-benefit pension schemes. The long-term interest rate on government debt is a key element in the assessment of the sufficiency of pension fund assets to cover expected liabilities. This rate, often termed the “risk-free rate”, is important not just in valuing the discounted value of current liabilities but also in judging expected returns from other asset classes, for example by adding a risk premium to the risk-free rate.

As the capital value of government bonds moves inversely with changes in the yield that it offers, pension funds can use a portfolio of government bonds to reduce the volatility of their funding position relative to changes in interest rates over time and to match their needs for cash flow from interest and dividend payments to payments made to pensioners. However, conventional government fixed-interest securities only provide a guarantee of nominal returns over the term of individual issues. If pension schemes offer a promise of a degree of protection against inflation, then the fund needs assets that are linked to real rather than nominal values. Since the 1980s index-linked government securities have given defined-benefit schemes in the UK a risk-free asset linked to underlying price inflation.

An independent Scotland would have to develop a government bond market to cover both the projected gap between government spending and revenues and to meet any obligations settled in the independence negotiations or to service or buy out a share of the UK national debt. While there is no indication of the likely

structure of that market in the White Paper, such as the availability of long-dated or index-linked stocks, there are good reasons (as set out in Chapter 2) to expect long-term yields on the new Scottish debt to trade at a premium to those on gilts. For example, the lack of track record for Scotland as a sovereign borrower, the uncertainties linked to administering whichever monetary system is adopted, the fact that Scottish government debt would be less liquid than gilts, the potential volatility introduced to Scottish tax receipts by movements in the oil price, and potential behavioural changes post-independence could all contribute to higher yields on Scottish debt, at least in the medium term.

While a cost of independence to Scottish taxpayers, these higher long-term interest rates could be beneficial to defined-benefit pension funds operating in Scotland, as it would raise the discount rate at which liabilities are assessed, making it cheaper to fund liabilities.

Higher long-term interest rates could be beneficial to defined-benefit pension funds operating in Scotland.

Defined-benefit pension funds with Scottish liabilities would also provide a market for index-linked debt issued by a Scottish government. Such issues could play an important role in meeting inflation-indexing promises to Scottish pensioners. There is no discussion in the White Paper of whether an independent Scotland would introduce index-linked government securities. The UK issues index-linked gilts that use the Retail Price Index (RPI) as its benchmark. As a result of its structure, the RPI tends to show a higher rate of price inflation in the UK than its counterpart the Consumer Price Index (CPI). If only CPI-linked bonds were issued by a Scottish government, it would increase the challenge of meeting RPI-linked pension promises by defined-benefit schemes in Scotland.

If an independent Scotland opted for a new currency or eventual membership of the euro, defined-benefit pension schemes, whether operating solely in Scotland or cross-border in the UK, would face a potential currency mismatch between assets and liabilities. In such circumstances it seems likely that affected schemes would have to introduce currency hedging strategies in the short and possibly in the longer term as they restructure their asset holdings to more closely match the flow of non-sterling liabilities they would face. Such strategies are costly to put in place, adding to the pressures faced by defined-benefit schemes. And, if Scotland opts for its own currency, the availability of other asset markets that are a good match for Scottish liabilities might take a considerable time to develop in any depth.

5.3.3 Regulation and pension protection

Currently, the cost of pension regulation and levies to fund the Pension Protection Fund (PPF) are spread across the UK as a whole. The Scottish government wishes to maintain this pan-UK approach post-independence. While allowing for the economies of scale that exist in both regulation and guarantee systems funded by industry levies, such a scenario cannot be guaranteed. For example, regulation might begin to drift apart if the rUK authorities introduce measures that are not copied in Scotland, while the failure of a large scheme on either side of the border might bring complaints that the PPF is undertaking cross-border bailouts.

Dealing with separate regulators would increase the cost burden on businesses offering defined-benefit schemes, while a Scottish pension protection fund would be more easily swamped by a single large pension fund insolvency.

5.4 Impact of independence on defined-contribution schemes

Independence would also have implications for defined-contribution pensions in Scotland. These include the following:

- Higher annuity rates if yields on Scottish sovereign debt are higher than those on gilts.
- Decreased competition among annuity providers for those retirees who opt to convert their pension funds into an annuity.
- Increased risk of asset and liability mismatches, particularly for defined-contribution plans controlled by individual investors.

Higher yields on Scottish sovereign debt should translate into higher annuity rates, other things being equal. Annuity payments are in effect driven by expected mortality and the yield on sovereign debt securities that cover the term of the expected payments. The impact of Scotland's worse overall mortality experience is already implicit in the annuity rates offered to individual purchasers. Even when specific health issues are not declared or apparent, annuity rates offered by insurance companies vary according to the average mortality experience of a post code area. However, if, as seems likely, Scottish yields are higher for all maturities of debt, then annuity providers should be in a position to pay higher annuity levels, though in the case of index-linked annuities the availability of index-linked Scottish debt and the benchmark inflation rate are potential issues.

These higher annuity rates are not necessarily a win-win for Scottish pensioners who opt to buy annuities. They, along with other Scottish taxpayers, would have to shoulder the costs of higher interest rates on sovereign Scottish borrowing, along with the other economic effects that would flow from higher interest rates. These might include higher mortgage rates and the likelihood of lower house prices than would otherwise be the case.

The annuity market across the UK, particularly for the small pension pots that dominate the market in terms of number of annuities purchased, has come under fire for lack of competition and choice available to annuitants.¹²² The 2014 Budget recognises this problem and gives all owners of defined-contribution plans the option of receiving cash, taxed at their marginal rate, rather than requiring the purchase of an annuity.¹²³ Nevertheless, international experience suggests that many retirees will still want the certainty offered by an annuity.¹²⁴ Whether an independent Scotland would revert to the existing UK rules or would broadly adopt the new approach is uncertain. However, the smaller Scottish market might undermine competition by suppliers even further and would tend to erode any economies of scale available in the UK as a whole, particularly if regulation of the two markets drifted apart over time.

A frequent criticism of defined-contribution pension schemes is the transfer of investment risk to the individual. This encompasses the likelihood that most defined-contribution plan participants lack the knowledge of asset markets to make wise selections from the range of investments on offer through their scheme. The pension industry has sought to counter these criticisms by producing both

122 "Annuities: Time for Regulatory Reform", Financial Services Consumer Panel, December 2013.

123 "Freedom and choice in pensions", HM Treasury, March 2014.

124 "Annuities: shy and retiring", Financial Times, 19 March 2014.

educational material and by offering lifestyle pension funds that move the asset allocation to hedge interest rate risks with the advancing age of the policyholder.

Given that many holders of personally invested pensions are not sophisticated investors, there is therefore the risk that if independence is accompanied by a new currency or a move to join the euro these pension savers would not be well prepared to make appropriate changes in their asset allocation, to the detriment of their eventual pension.

For businesses that operate pension schemes on both sides of the border, Scottish independence would add a layer of costs.

5.5 Implications for business

For businesses that operate pension schemes on both sides of the border, Scottish independence would add a layer of costs to pension administration in terms of:

- Transition arrangements;
- Potential costs for splitting schemes between Scottish and rUK employees, including loss of any economies of scale for pan-UK schemes;
- Added compliance costs in dealing with two rather than one regulator and potentially two pension protection funds;
- Administrative costs associated with divergence over time in tax reliefs and administrative requirements in relation to pension savings; and
- Compliance with the IORP for defined-benefit schemes that decide to operate on a cross-border basis, including the need to accelerate the rate at which defined-benefit-scheme deficits are addressed.

Labour mobility among business locations on either side of the border may also be affected by the strategic decisions taken by businesses in relation to pension schemes. For example, businesses with a small pool of employees in Scotland relative to the UK might find it advantageous to “buy out” scheme members in Scotland, while maintaining defined-benefit schemes for their rUK employees. While this might avoid the constraints imposed by the IORP, it might also make it difficult to transfer staff to Scotland in cases where the defined-benefit scheme is perceived as having greater value than alternative arrangements for Scottish employees.

The possibility that an independent Scotland would introduce a new currency or continues to use sterling, but outside a formal currency union, increases the risk of the currency mismatch between assets of defined-benefit schemes and their future liabilities. This could be a particular problem if a new Scottish currency were to appreciate, say on the back of a sharp increase in oil prices. The availability of real assets, such as equities or property denominated in a new Scottish currency is likely to be narrow. Moreover, an oil shock that raised the value of a “Scots pound” would be likely to depress asset values for many typical pension fund holdings.

The UK government is currently consulting on the future of defined-benefit pension schemes with one possible outcome a weakening in the inflation protection that these schemes have to offer pensioners. This would make defined-benefit pension schemes more affordable for many companies. If independence occurs it is not clear whether the Scottish government would follow the same path.

Higher yields would help to reduce the size of deficits assessed to defined-benefit schemes and would increase the level of annuity payments.

Index-linked government bonds provide one means for private sector pension schemes to guarantee inflation-linked pensions. At present it is not clear whether these type of securities would be issued in Scotland and to which index they would link.

On the plus side of the equation, both Scottish pension schemes and new annuitants could benefit from the expected higher yield on Scottish government debt. These higher yields would help to reduce the size of deficits assessed to defined-benefit schemes and would increase the level of annuity payments for any given capital sum. However, this benefit comes at the cost of higher interest rates and more adverse public finances than would be the case if independence did not occur.

Box 5.1: Pensions in the UK – background

UK State pension

The UK state pension, like many first-tier pension systems worldwide, relies on transferring income from the current generation of taxpayers to the retired population. It is not funded in the sense of relying on the income from an explicit pool of assets to generate the income stream with which to pay pensions. Given the general ageing of the UK population and rising life expectancy, the real-terms size of this transfer is likely to increase through time, continuing even after the decline in the birth rate from the mid-1960s is fully reflected in the retired population in the second half of this century.

While in international terms the UK state pension promise is not generous, the Pensions Commission concluded that:

“We do not believe it is possible to design a coherent state pension system for the UK without some increases in public expenditure on pensions as a percentage of GDP between now and 2050.”

“We believe that increases in the state pension age will be essential to keep increases in public expenditure within limits which are fair between generations and sustainable over the long term”¹²⁵

These considerations lie behind the UK government’s plan to introduce a flat-rate state pension from 2016; progressive increases in the age at which individuals qualify for the state pension; and the introduction of workplace pensions, involving auto-enrolment, to cover employees who do not have employer-sponsored pension schemes attached to their job.

Increases in the qualifying age for state pensions have already begun for women, progressively raising receipt of state pension from 60 years of age to 65 for those born in late 1953. Thereafter, men and women will have the same qualifying age for state pensions, which will rise progressively from 65 in 2018 to 66 in 2020, with a further rise to 67 beginning in 2026. Further out, the state pension age will effectively be linked to life expectancy, with the age rising on the principle that “people should expect to spend up to one-third of their adult life in receipt of state pension”.¹²⁶

125 “A New Pension Settlement for the Twenty-First Century”, The Second Report of the Pensions Commission, 2005

126 Autumn Statement, 2013, HMT

Defined benefit pensions

Defined-benefit pensions, sometimes called final-salary pensions, provide the pensioner with a promise of a defined level of income linked by a pre-defined formula either to pre-retirement income or some measure of career average earnings. These schemes are offered typically, by larger employers in the private sector and by the public sector.

Other aspects of these schemes include a degree of index-linking to price inflation; death-in-service benefits to partners and dependents; full pension rights for those who have to retire before the date specified by the scheme because of ill health; the ability for the employee to retire earlier than the date at which full benefits become available as long as they have reached the age of 55 and are willing to take reduced benefits; and to receive up to 25% of the accrued pension rights as a tax-free lump sum.

The pre-defined benefits are usually based on an accrual rate. For example, this might offer a pension of 1/60th of final salary for each year worked, so that 40 years of membership in the scheme results in an annual payment of two-thirds or annual salary, index-linked.

Defined-benefit pensions are usually, but not always in the case of some public sector schemes, funded in the sense that a pool of assets has been built up by both employer and employee contributions over the years, the returns from which are used to meet the pension promise.

The availability of defined-benefit pension schemes has reduced sharply in the last 20 years, hit by a combination of factors, predominantly poor investment returns relative to prior expectations, low interest rates, and rising life expectancy. Effectively, the employer who sponsors a defined-benefit pension scheme is assuming most of the investment risk that returns will be sufficient to meet the pension promises. In cases of shortfall, assessed by comparing current assets with expected future liabilities discounted by long-term interest rates, the employer may be required to make additional contributions to the pension fund, though some increase in employee contributions or even outright default are other possible outcomes. As fewer private sector employers have been willing to shoulder the burden of rising contribution costs and take on the associated long-term risks, the coverage of defined contribution schemes has shrunk sharply, with many large employers closing their defined-benefit schemes to new employees. According to the Pensions Policy Institute, over 80% of defined-benefit schemes are now closed to new members or future accruals by existing members.¹²⁷

In cases of insolvency for defined-benefit pension schemes, the Pension Protection Fund (PPF), which is funded by a levy on defined-benefit schemes, will step in, but the pension payments from this fund are capped, meaning that a high-income pensioner of an insolvent scheme may see a drop in pension income.

Defined contribution pensions

Defined-contribution schemes, which are also often called money-purchase pensions, involve the accumulation of a capital sum over time from which the individual can fund retirement income. As with employee contributions to defined-benefit schemes, the payments that an individual makes into a defined-contribution plan attract income tax relief. Workplace schemes are typically structured so that both the employer and employee make contributions to the plan.

¹²⁷ What level of pension contribution is needed to obtain an adequate retirement income? Pension Policy Institute, October 2013

Retirement benefits can generally be taken at any point from age 55. The retiree can take up to 25% of the value of the pension savings as a tax-free lump sum. The remainder of the assets in the scheme can then be used either to buy an annuity that provides an income for life, or to enter a drawdown arrangement, either where the maximum annual amount that can be drawn from the remaining pool of assets is linked to long-term gilt yields¹²⁸, or in cases where the pensioner can demonstrate other secure pension income in excess of £20,000 per annum unlimited withdrawals can be made.

In contrast to defined-benefit pensions, the individual assumes most of the risks associated with pensions in defined-contribution arrangements. In particular, the individual assumes the investment risk that returns might not be great enough to build a capital sum that will yield a sufficient income in retirement, or in the case of drawdown, the risk that the drawings exhaust the available funds. For those taking a level annuity that pays the same amount each year, there is a substantial risk that inflation will seriously erode the purchasing power of a pension, especially for the long-lived.

The historically low interest rate environment in the aftermath of the financial crisis means that many defined-contribution pensions are failing to meet earlier expectations for the level of purchasing power they would provide. Low long-term gilt yields, to which annuity rates are tied, translate into low annuity rates. For example, a 65-year-old purchaser of a level annuity today would have to live for over 16 years to enjoy a pre-tax return of the capital used in the purchase of the annuity. Moreover, a purchaser of an inflation-linked annuity at age 65 would receive a starting income of only a little over 60% of the amount on offer via a level annuity.

Defined-contribution pensions have sometimes been viewed as inferior to defined-benefit plans, though this may have as much to do with lower levels of contribution made by both employers and employees than to their structure per se. Defined-contribution plans offer more flexibility for the individual and may have less impact on labour mobility than their defined-benefit counterparts, where individuals might choose to stay in a job simply because of the pension rights that attach to it.

Life time limit

Pension saving offers substantial tax advantages, particularly for higher earners. While individuals can save as much as they like into their pension, there is now a limit to the maximum value of pension savings that can be built up that benefits from tax relief. Pension savings in excess of this lifetime allowance of £1.5 million¹²⁹ suffer a tax charge when a pension starts to be paid. While this affects relatively few people, the introduction of the lifetime allowance has complicated the administration of defined benefit schemes.

National Employment Savings Trust (NEST)

The Pension Act of 2008 placed a statutory duty on employers to provide access to a workplace pension scheme. By 2018 all employers must have in place a scheme that meets a set of minimum criteria. All employers with over 250 staff must have these plans in place by February 2014. NEST offers a low-cost defined-contribution pension for staff earning between lower (£5,668) and upper (£41,450) limits. The minimum contribution is currently 2%, of which the employer must pay half. The minimum contribution steps up to 8% from 2018 onwards, with the employer contributing at least 3%. While membership is not compulsory for the employee, one of the innovative features of NEST is auto-

128 The Government Actuary's Department

129 Falling to £1.25 million in 2014/15.

enrolment, with those not wishing to join the scheme having to request an opt-out. The aim of auto-enrolment is to nudge more employees to build pension savings.

There has been criticism that, even with the eventual 8% contribution rate to NEST, there is a considerable risk for those with median earnings and above of failing to achieve an income target in retirement of two-thirds of their employment income from a combination of a NEST pension and state pension, despite a lifetime of contributions.¹³⁰ A scheme in Australia that is run on similar lines to NEST is raising its contribution rate to 12% in 2020.¹³¹

130 "What level of pension contribution is needed to obtain an adequate retirement income?" Pension Policy Institute, October 2013.

131 "The future of saving is far from secure", *Pension Insight*, 31 October 2013.

6

Independence would have far-reaching consequences for businesses in Scotland.

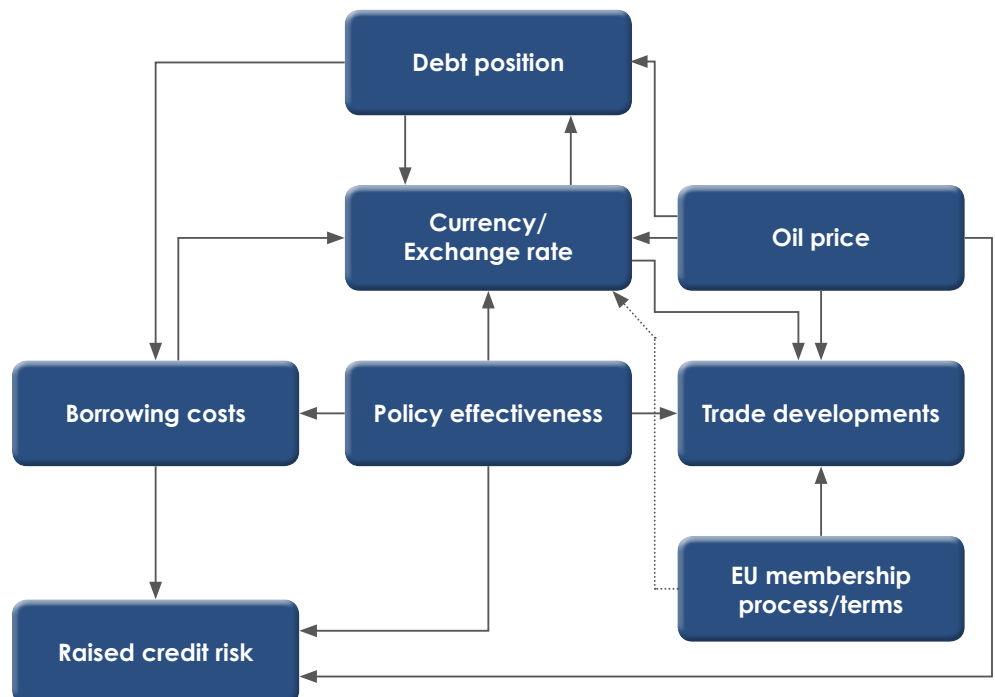
Conclusions

Independence would have far-reaching consequences for businesses in Scotland. It is certainly possible for Scotland to foster a thriving economy as an independent nation. But there remain many unknowns about the nature of an independent Scotland – the policy choices it would (and would be able to) make; the benefits and costs these would imply; and the considerable challenges of the transition process.

This paper has set out a number of benefits, costs and risks for businesses in four key areas – funding costs; corporation tax; trade; and private pensions. The key benefits from independence lie in the policy flexibilities that it would bring, if those flexibilities were to be used to encourage economic activity. But foremost among the costs are the higher funding costs that would result from the new monetary arrangements and the long-term fiscal pressures that an independent Scotland would face. Whether the fiscal consolidation required after independence – to keep debt under control and contain funding costs – involves increases in taxation or constraints on public spending, businesses in Scotland are unlikely to escape unscathed.

There are many linkages among these issues that would come into play upon independence, with decisions on currency arrangements playing a pivotal role in influencing the post-independence business environment and the uncertainties it would contain. These linkages are illustrated in Figure 6.1, where, for example, the currency choice will have a direct impact on trade, but will also have fiscal implications, which will in turn determine the scope for corporation tax reforms. And of course, that currency choice may have an impact on the value of Scottish workers' pensions, for good or ill. These linkages magnify the risks businesses face.

Figure 6.1: Inter-linkages that impact on the business environment



Source: Oxford Economics

Whatever the ultimate implications of independence for the currency, policy and regulatory framework, it is clear that businesses in an independent Scotland would face numerous risks and additional costs. These relate to the uncertainty about:

- how long the hiatus would be from September 2014 until the details of the negotiated settlement become clear;
- what the outcome of these negotiations with the rUK government will be, including the currency options open to an independent Scotland and starting sovereign debt position;
- the transition process to independence, including the implications of the adopted currency solution;
- policies that an independent Scotland's first government would adopt and how it would use its new policy freedom;
- the process, timing, and requirements of EU accession, including whether this would include a commitment to euro and/or Schengen membership; and
- the behavioural changes that would occur post- independence, including business location decisions, migration flows, and consumer reactions in some key export markets.

Businesses recognise that the Scottish government would be entering a negotiation process the outcome of which is not fully within its gift.

While the independence White Paper seeks to provide answers and reassurance on many of these risks, businesses recognise that the Scottish government would be entering a negotiation process the outcome of which is not fully within its gift. The shape of the final arrangements would take time to emerge, and there is considerable scepticism that an 18-month timetable for implementation of an independence settlement is achievable given the range of issues and the intricate nature of the process. Moreover, the consequences of negative outcomes from some of these uncertainties could be significant. The question of the currency arrangements that an independent Scotland would adopt is particularly troubling for many businesses that identify economic and financial stability as a key element of the business environment.

In addition, there are likely to be considerable one-off and ongoing costs to businesses in adapting to the changes implied by independence. These costs, which are likely to vary by type of business and markets served, include:

- administrative costs in relation to issues as varied as having to deal with two tax authorities instead of one, development of new banking arrangements, and splitting pension funds;
- dealing with two sets of regulators instead of one;
- establishing rUK companies and an rUK presence where this is likely to be required to maintain market share;
- potentially having to set up the capability to deal with separate currencies and the ongoing costs of undertaking foreign exchange transactions; and
- the opportunity cost of executive and employee time spent on handling issues specific to their businesses thrown up by independence, instead of focusing on business growth and efficiency.

How are these risks, costs, and benefits likely to affect businesses in Scotland? The answer varies according to the type of business in question. For example, multinationals serving world markets from a Scottish base are unlikely to suffer higher funding costs, and depending on the detail of the reform, could be

substantial beneficiaries of any reduction in the statutory CT rate, even bringing some headquarter-type activity to Scotland. Equally, these multinationals are likely to want to see fiscal and monetary credibility built quickly – with implications for tax rises and spending cuts – and seamless access to EU markets maintained by an independent Scotland. One other negative for this group could be the creation of cross-border pension issues.

Large Scottish-based businesses serving the rUK market are likely to have more cause for concern over independence. Again, the proposed cut in the statutory CT rate, if it is affordable, could be a positive for them, while those with only Scottish members in their pension scheme could see a narrowing of any pension deficits in defined-benefit schemes. However, these businesses are particularly vulnerable to border impacts on their sales to the rUK, especially if they sell products or services where buyers prefer domestic products, as with financial services or public procurement. While these concerns can be addressed by developing rUK locations, over time this could loosen the attachment of headquarters activity to Scotland. And, unless these businesses have the market power that comes from a unique product, the likelihood is that they will have to absorb transaction costs on rUK sales, whether in the form of increased administration costs or the added cost of foreign exchange transaction and exchange rate risk. For these businesses, with access to diverse and international funding sources, the impact on their funding costs from higher sovereign borrowing rates should be more limited than for other businesses.

Small and medium-sized enterprises, whether exporters to the rest of the UK or domestically focused, face the disadvantage of increased funding costs as the result of their dependence on bank lending, which will be affected by spillover from the rise in sovereign borrowing costs. They are also much less likely to derive any benefit from a lower statutory CT rate; indeed they could lose from any revenue-raising moves by the government to change CT reliefs and allowances. Higher annuity rates would, however, see the pension offer of SMEs with defined-contribution pension funds improve.

Abrogating the Acts of Union would create a number of costs and uncertainties, and fewer benefits.

SMEs with substantial rUK markets will face the same challenges as larger Scottish businesses selling across a new border. Again, there is likely to be pressure to absorb transaction costs, but smaller firms will have less corporate resource and experience in dealing with the administration and potential currency issues involved in cross-border sales. Higher funding and administrative cost would sap profits and could impact investment, particularly if internally generated funds provide an important source of finance.

For all businesses, however, much greater certainty about the real destination of independence would be needed if the risks and costs outlined in this report are not to hinder new investments, and in some cases cause businesses to consider relocating their activities to a jurisdiction outside Scotland.

In conclusion, the four dimensions of independence considered in this report suggest that, over 300 years on, abrogating the Acts of Union in a sophisticated and highly integrated modern economy would not be easy. Scotland's economy could succeed under independence, and it would be in rUK's interests to facilitate that success as far as possible. But it would create a number of costs and uncertainties, and fewer, more uncertain benefits, for those businesses so vital to the future prosperity of the country, as it goes its own way.

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