



University of
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Business
School

Fraser of Allander Institute

Economic Commentary

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Foreword

Deloitte is proud to support the Fraser of Allander Institute Economic Commentary. The Institute's research demonstrates the overall resilience Scotland has shown in the first half of the year, despite political and economic uncertainty.

Scotland's rich history of innovation, and its ability to adapt, change, invent and re-invent has helped it weather the storms of uncertainty that have presented themselves over the last few years. The research highlights, with due caution, that our economy continues to recover, albeit at a delicate pace.

If this is to continue, innovation must be at the heart of everything we do. It's a word which is often heard these days, and there are countless examples of where genuine innovation has already played an important role in the development of our most economically important sectors.

We've seen it in financial services, as the sector moves further towards the adoption of technology in its practices. Fintech has the potential to completely transform the Scottish financial landscape, with Edinburgh acting as a UK and worldwide hub. We've seen many of these businesses first-hand in our own Digital Studio, where we're working to help companies of all sizes make better use of digital technologies, turning their innovations into commercial reality.

In energy and resources, centres such as the Oil and Gas Technology Centre (OGTC) have emerged to promote innovation at every level of the supply chain. The centre has brought new technologies to the North East and has played an important role in mitigating against the impact of the sustained low oil price.

It's also instilled in family businesses, which have made innovation part of their culture. As highlighted in the recent Scottish Family Business Top 100 report, they're part of the engine room for the Scottish economy, contributing significantly to employment, economic output and to the communities in which they find themselves.

We recently hosted Sir Howard Bernstein, who has been credited with the regeneration of Manchester, at an event in Aberdeen. He spoke about the four pillars for change that will deliver a prosperous future for Aberdeen: growth, people, civic engagement and infrastructure funding.

Across Scotland, we should aim to turn these recommendations into action. The message that resonated following Sir Howard's speech was that Scotland can, and must do better. Given the recent challenges our economy has faced, we should be proud of Scotland for its resilience, but the ambition must always be to strive to improve.

Scotland remains an attractive place to do business, and it is, without question, an economically rich nation. We need to continue to foster an environment which allows companies to grow, innovate and enter new markets, ensuring Scotland remains a key location for international investment.

The months ahead will see economic policy in Scotland being debated, and it's important that this discussion isn't just held within the walls of government and parliament. The participation of the business community in this debate is absolutely critical. As the lifeblood of the Scottish economy, businesses have a pivotal job to do in Scotland's resurgence.

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September 2017



Fraser of Allander Institute

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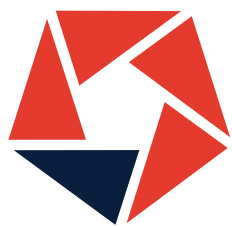
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For regular analysis on the Scottish economy and public finances please see our blog

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Summary

The Scottish economy returned to growth in the first 3 months of 2017. The upturn was driven by a bounce back in a number of manufacturing sectors. These same sectors had been some of the hardest hit in recent times, so holding on to such gains will be a success in its own right.

Scottish unemployment is now at its lowest rate since the Labour Force Survey was first collected back in 1992. But newly revised data published last month confirmed that the economy contracted – albeit marginally – in 2016. And growth over the year remains below trend.

The latest leading indicators suggest that the economy continues to recover, albeit at a relatively fragile pace.

The latest Fraser of Allander – Royal Bank of Scotland Scottish Business Monitor published in July showed both a rise in repeat business and in new orders. The latest surveys also show that some sectors – such as tourism – have had a relatively buoyant summer. However, households still appear wary of the economic outlook. Consumer confidence remains negative with Scottish households more concerned about the outlook than those in the UK.

In looking forward, the greatest cloud on the immediate horizon remains the Brexit negotiations.

As we have argued on a number of occasions, we believe that the decision to leave the EU will act as a long-term break on Scotland's (and UK's) growth potential. But as with all economic change, there will be winners and losers. Preparation will be key.

Irrespective of the long-term effects, the immediate concern facing many businesses is the potential for the *exit process* itself to go awry. We are now 15 months on from the referendum with a deal likely to

be needed in just over a year's time. But very little progress – if any – seems to have been made on the key elements of the UK's terms of exit.

'No deal' would clearly not be in the interests of either the UK or the EU. The potential risks from such a 'cliff-edge' scenario, with companies finding themselves outside the Single Market and Customs Union, would be severe indeed.

Whilst a detailed agreement will not be reached until the end of the process, the longer we wait for evidence that serious progress is being made, the greater the likelihood that companies and investors will start to plan for the worst.

Some things are clearly out of the hands of the UK Government but one area they could provide greater clarity on is over the specific powers they envisage being transferred to the Scottish Parliament post-Brexit. Clarity on this would help enable preparatory discussions to take place between business and the devolved administrations.

On balance our forecasts are based upon the assumption that a constructive deal between the UK and the EU is reached. Should this not occur, outcomes toward the lower end of our forecast range are more likely.

Our forecasts remain broadly the same as they were in June. The GDP data to be published next month will hopefully confirm that the welcome gains in the first three months of 2017 continued into the months that have followed. Overall, we expect growth to pick-up this year and next but to remain fragile.

Fraser of Allander Institute
September 2017

At a glance

- The Scottish economy returned to welcome growth in the first quarter of 2017, with quarterly growth of +0.7% - significantly faster than UK growth of +0.2%.
- But the upturn comes on the back of a challenging couple of years. Annual growth to the end of March 2017 was around a quarter of its long-term trend.
- At the same time, much of the growth in Q1 2017 appears to have been driven by one off factors and sales to the rest of the UK.
- Whatever the source of such growth, the hope will be that this can act to build momentum through the remainder of the year.
- The labour market continues to hold up remarkably well but productivity and earnings continue to fall.
- Most near-term indicators show growth through the summer but uncertainty still weighs heavily on the outlook.
- Our assessment is broadly the same as it was back in June - we believe that the Scottish economy will grow more quickly this year than last, but that such growth is likely to remain below trend. Our central forecast is for growth of 1.2% in 2017, 1.4% in 2018 and 1.7% in 2019.
- Unemployment will continue to remain low, although a gradual adjustment back to more normal 'long-term levels' is likely.

FAI forecast Scottish GVA growth (%) by sector, 2017 to 2019

GVA	2017	2018	2019
Production	1.3	1.6	1.9
Construction	0.7	0.9	1.1
Services	1.2	1.4	1.7

SOURCE: Fraser of Allander Institute

FAI Scottish GVA forecast range 2017 to 2019



SOURCE: Fraser of Allander Institute

* Actual data to Q1 2017, central forecast with forecast uncertainty for 2017 – 2019. Uncertainty bands sourced from accuracy of past forecasts at different forecast horizons

FAI labour market forecast to 2019

	2017	2018	2019
Employee jobs	2,448,600	2,481,900	2,523,700
% employee job growth over year	+0.8%	+1.4%	+1.7%
ILO unemployment	104,400	128,750	134,500
Rate (%) 1	4.0	4.8	4.9

SOURCE: Fraser of Allander Institute

Notes:

Absolute numbers are rounded to the nearest 50.

1. Rate calculated as total ILO unemployment divided by total of economically active population aged 16 and over.

Outlook and Appraisal

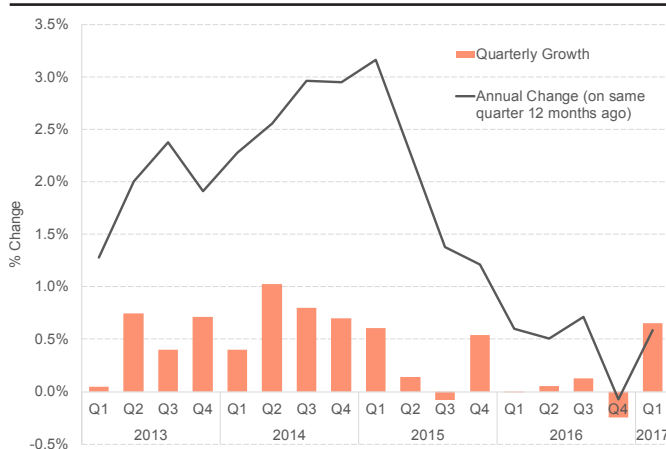
The Scottish economy returned to growth in the first 3 months of 2017. The upturn was better than expected driven by strong growth in a small number of manufacturing sectors. Whilst welcome, the figures need to be viewed in the context of an economy that has been exceptionally weak for two years. The economic news has remained relatively positive over the summer although trading conditions remain fragile. The lack of progress in the Brexit negotiations remains the biggest risk for the near-term outlook.

Table 1: Scottish growth (%) by sector, Q1 2017

	GDP	Agriculture	Production	Construction	Services
Q1	+0.7	+0.3	+2.7	-0.6	+0.4
UK	+0.2	+0.1	+0.1	+1.1	+0.1
Annual	+0.6	+0.8	-0.1	-4.0	+1.2
UK	+2.0	-0.2	+2.3	+2.8	+2.3

SOURCE: Scottish Government

Chart 1: Scottish growth (since 2013) - year and quarter



SOURCE: Scottish Government

Table 2: Labour market, May - Jul 2017

	Employment (16-64)	Unemployment (16+)	Inactivity (16-64)
Scotland	75.8	3.8	21.2
England	75.6	4.4	20.9
Wales	72.4	4.3	24.2
N. Ire	68.2	5.3	27.8
UK	75.3	4.3	21.2

SOURCE: ONS, Labour Force Survey

Introduction

The Scottish economy grew 0.7% in Q1 2017. The upturn was driven by a bounce back in a number of manufacturing industries which had gone through an exceptionally difficult 2015 and 2016. (Table 1 and Chart 1)

But revised estimates published after the Q1 statistics were first released show that the Scottish economy actually contracted in 2016 – down 0.1% over the year (up 0.4% on a 4Q-on-4Q basis). As Chart 1 highlights, Scotland came close to meeting the technical definition of a recession (two quarters of falling output) in 2016.

Even with the Q1 figures, Scotland's annual growth rate was just 0.6%.

But with growth returning, the hope is that this can build momentum for the rest of the year.

The contrast between a fragile economy and robust headline labour market indicators continues.

The unemployment rate is at a joint record low, with the employment rate at a record high. (Table 2)

There remains a high degree of uncertainty around all economic forecasts at this time.

Even with the data showing rising business activity over the summer, firms still face a challenging trading environment.

Rising inflation, weak earnings, a cooling UK economy and high policy uncertainty are clear headwinds.

A focus – both by policymakers and business – on the long-term drivers of growth such as innovation, investment and skills, is more important than ever.

Table 3: Key export markets: annualised growth (Scottish export share)

	2016		2017	
	H1	H2	Q1	Q2
UK (63%)	1.5	2.3	0.9	1.2
EU (16%)	1.8	2.0	2.0	2.3
US (6%)	1.4	2.3	1.2	2.6
China (1%)	6.7	6.8	6.9	6.9

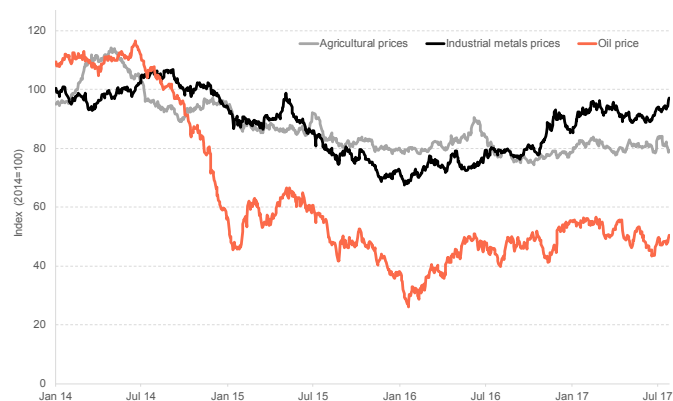
SOURCE: IMF & Export Statistics Scotland

Table 4: Global outlook - % growth (*July revisions*)

	2016	2017	2018
World	3.2	3.5 (<i>Hold</i>)	3.6 (<i>Hold</i>)
G7	1.7	2.0 (<i>Hold</i>)	1.9 (<i>-0.1</i>)
Euro Area	1.8	1.9 (<i>+0.2</i>)	1.7 (<i>+0.1</i>)
Emerging/ Developing	4.3	4.6 (<i>+0.1</i>)	4.8 (<i>Hold</i>)
World Trade	2.3	4.0 (<i>+0.2</i>)	3.9 (<i>Hold</i>)

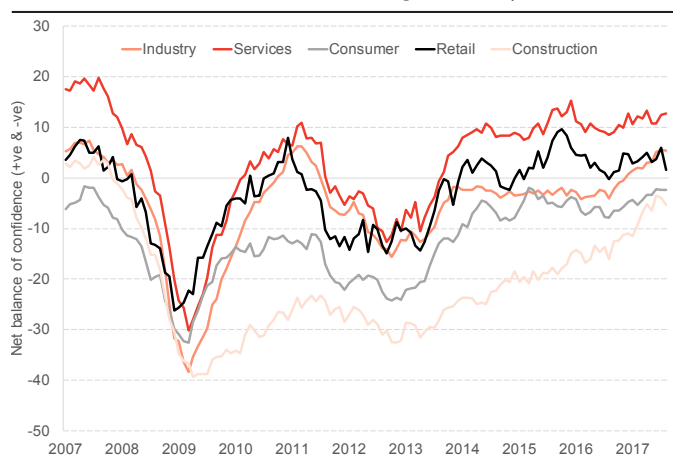
SOURCE: IMF

Chart 2: Commodity prices recovering but outlook for oil showing no sign of re-bounding



SOURCE: Thomson Reuters Datastream

Chart 3: Market confidence in EU – highest in 7 years



SOURCE: Thomson Reuters Datastream, European Commission

The global economy

The outlook for the global economy has improved, with growth picking up across most of Scotland's major international trading partners. (Table 3)

This outlook, alongside greater investor risk appetite, has supported rises in equity and corporate bond prices over the past year.

The IMF's latest forecast from July has global growth rising from 3.2% in 2016 to nearer 3.5% this year and next – not that far off long-term average rates of growth. (Table 4)

Stronger growth typically supports a more positive outlook for commodity prices.

However, in contrast to most other commodities, oil prices have fallen recently as developments in supply continue to outweigh demand prospects.

Scotland's oil and gas producers will need to work with a short to medium term oil price of just \$50 to \$55. (Chart 2)

In terms of Scotland's two principal export markets – the US and Europe – the outlook is positive.

Quarterly US GDP growth is expected to remain strong, leading to annual growth of above 2%.

Strong jobs market data and an anticipated fiscal stimulus should help sustain robust US growth.

The recovery in Europe continues apace. Consumer and business confidence is now at its highest level in 7 years, with positive signs for exports and investment. (Chart 3)

But whilst European unemployment continues to fall, it remains high with painful structural adjustments still needed.

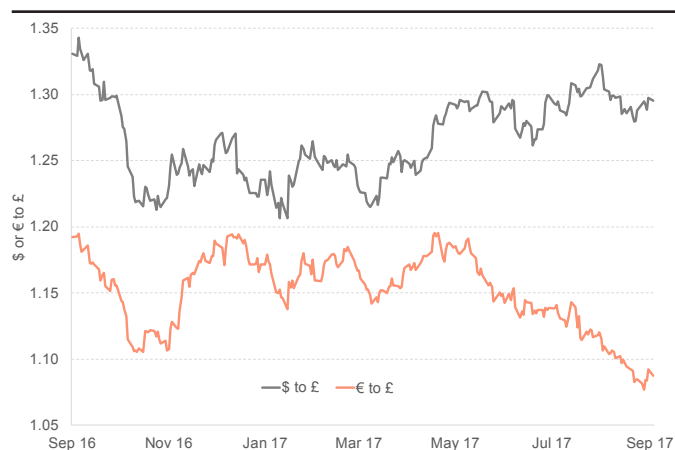
Even by 2018, Euro Area unemployment is projected to be close to 8%.

The recovery has helped – in part – to support a stronger Euro relative to Sterling.

Sterling is still around 15% below its peak in June 2015 (see Chart 4). In recent days, Sterling has risen on the back of speculation of a rise in interest rates.

Disappointingly, we have yet to see much evidence of this improved global outlook and competitive Sterling boosting UK net trade.

Chart 4: Sterling Exchange Rate - £ remains weak against Euro



SOURCE: Thomson Reuters Datastream

Leaving the EU undoubtedly represents the greatest challenge for the UK economy in a generation. There is still much uncertainty about the costs and benefits of Brexit. As with any change there will be winners and losers – by sector and by company.

Irrespective of the long-term implications, the near-term outlook for the economy will depend critically on how the negotiations pan out between London and Brussels – including the terms of exit, the transition period and the long-term deal. The lack of progress on all three is a concern.

Six of Scotland's top ten international export markets are in the EU with two more – Norway and Switzerland – governed by trade deals which will cease on exit. (Chart 5).

Boosting trade with 3rd countries is possible but its scale needs to be put in context. A 100% increase in exports to Australasia would be equivalent to just over 5% of Scottish exports to the EU.

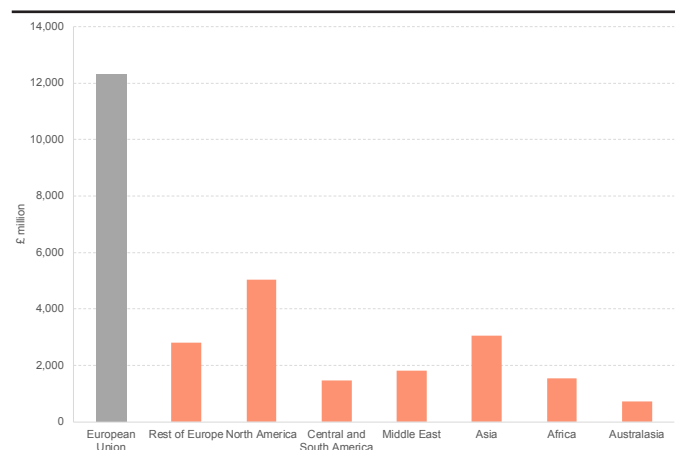
Exposure to the EU varies by sector – as does the dependence upon EU nationals for labour. (Chart 6 and Table 5)

Companies need to understand how their unique circumstances will influence how they will be affected by Brexit.

A 'cliff-edge' where companies find themselves locked out of relevant supervisory/regulatory regimes and/or face tariffs would be a major economic shock.

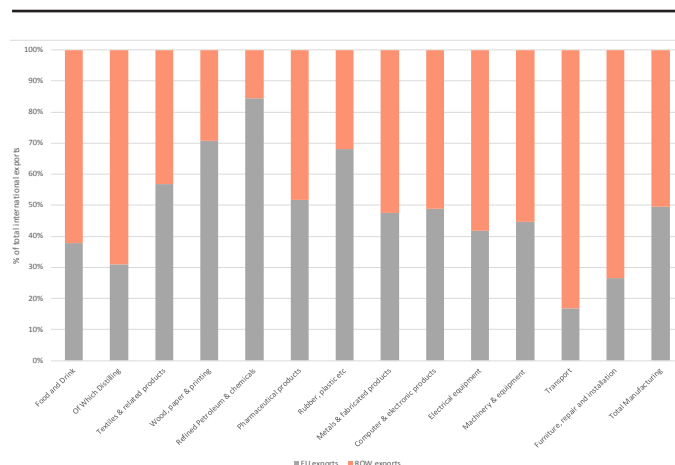
If negotiations continue to go poorly, it will not be long before contingency plans are enacted. Whilst the onus is on policymakers to make progress, businesses must prepare themselves for all outcomes.

Chart 5: Scottish International Exports - key destinations, 2015



SOURCE: Export Statistics Scotland

Chart 6: Scottish exports by EU and ROW (%), 2015



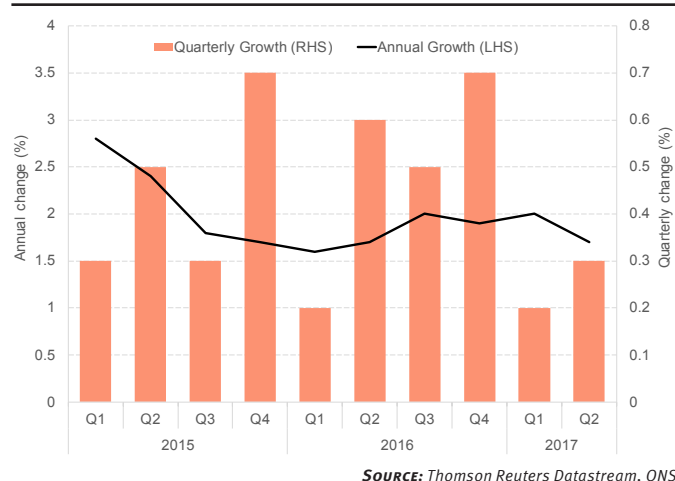
SOURCE: Export Statistics Scotland

Table 5: EU employment in key Scottish growth sectors, 2015

Growth Sector	EU Nationals (000s)	% of employment in sector
Food and Drink	8	11.3
Finance & Business Services	7	3.3
Tourism	20	10.8
Creative Industries	9	7.3
All Sectors	115	

SOURCE: ONS Annual Population Survey

Chart 7: Slowing UK economic growth during 1st half of 2017



The UK economy

UK economic growth slowed significantly during the 1st half of 2017.

Growth had been strong in 2016, confounding expectations that post-referendum uncertainty would impact on growth. Indeed, growth quickened in the 2nd half of 2016. (Chart 7)

But as we have outlined in earlier Economic Commentaries, underneath the headline figures there have always been concerns about the nature of that growth – in particular, the fact that it was propped up by a boom in consumption supported by increased borrowing and reduced savings.

This could not last.

Household consumption grew by just 0.1% in Q2 2017 – the weakest rate of growth since late 2014. The slowdown is impacted by two further factors. (Chart 8)

Firstly, the spike in inflation has had a significant impact on real earnings. (Chart 9)

Secondly, driven, in part, by uncertainty over the economic outlook, households appear to be holding off on discretionary spending.

Spending on durable goods (which tend to slow during periods of heightened uncertainty) has fallen sharply – and is now growing at its slowest rate since 2013. (Chart 10)

Chart 8: Recent strong growth in household consumption falling sharply as inflation rises

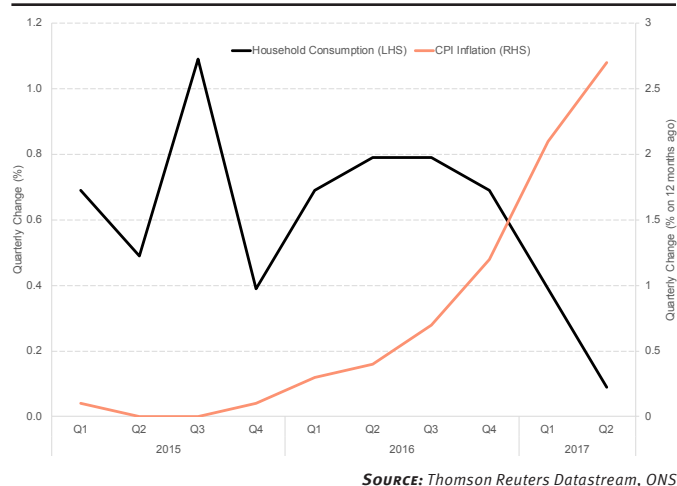


Chart 9: Falling UK regular average weekly earnings growth: 3-month on a year ago

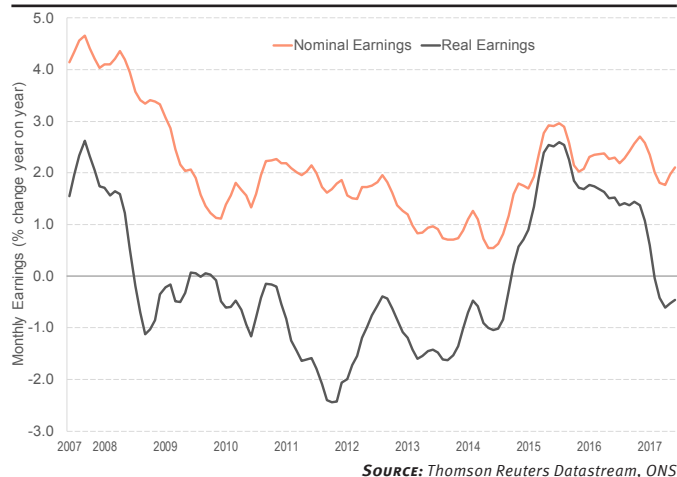


Chart 10: Household spending by product type: confidence appears to be acting as a break on durable goods

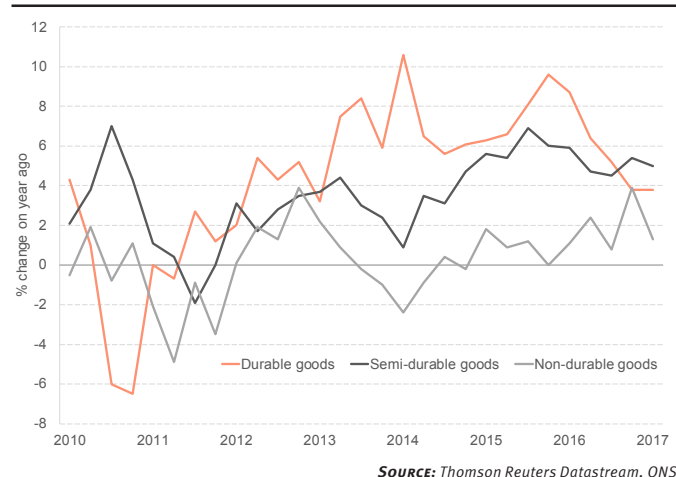


Chart 11: UK Net trade balance remains weak - with little sign of a boost from the low value of sterling



SOURCE: Thomson Reuters Datastream, ONS

With government spending still highly constrained, the hope was that exports and business investment would take up the slack from weaker growth in household spending.

But we have yet to see much evidence of this.

The UK's trade deficit widened by a further £400 million in July (Chart 11).

Despite Sterling falling significantly, export growth has been sluggish (Chart 12).

Some of this might reflect temporary factors – e.g. firms operating on fixed long-term contracts meaning that it could take time for the lower value of Sterling to pass through to competitiveness.

But some of the explanation is undoubtedly because many exporters rely on imports in their own production processes and business models. So for them, a Sterling depreciation is a zero sum game.

As Chart 13 highlights, business investment has been flat-lining for the best part of 18 months.

There was a modest pick-up of investment in the first three months of the year but this was followed by flat growth over the three months to June.

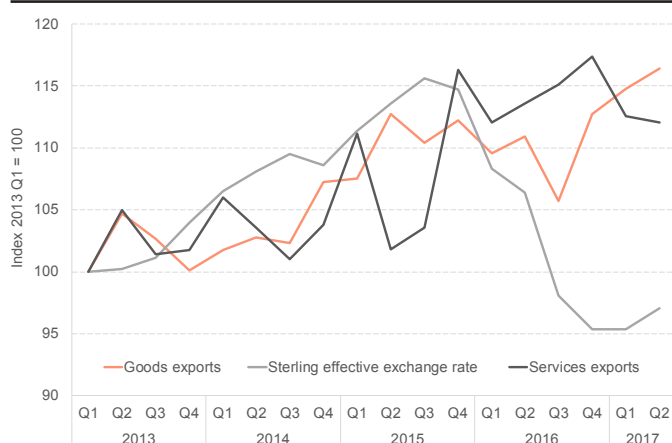
On the one hand, the UK's relatively robust growth in recent times – it had been one of the fastest growing economies since 2014 in the G7 – should have created positive conditions for investment.

But uncertainty over Brexit – coupled with rising costs in securing international finance – seems to be putting a break on firms investing at the current time.

For example, two fifths of respondents to a recent CBI survey reported that Brexit had negatively affected business investment decisions.

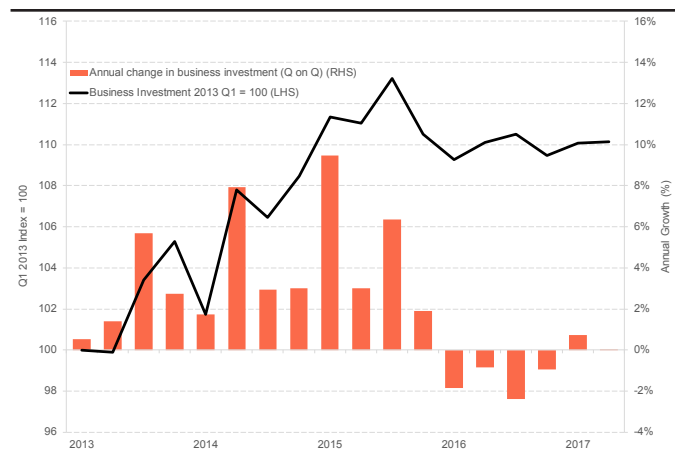
And the Bank of England's network of agents also found evidence that – whilst investment intentions have improved over the summer – some larger firms, and those more exposed to a potential change in trading arrangements with EU, have been delaying medium to long term investments.

Chart 12: Depreciation in Sterling but weak growth in exports



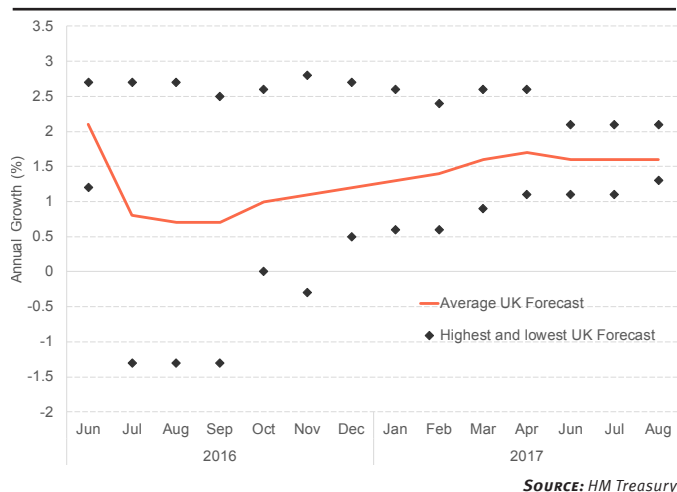
SOURCE: Thomson Reuters Datastream, ONS

Chart 13: Weak business investment: possible drag on long-term economic growth



SOURCE: Thomson Reuters Datastream, ONS

Chart 14: Evolution of UK forecasts for 2017



The UK economic outlook

Most forecasters predict that the UK economy will grow at just over 1.5% this year. Slower than in 2016 and below trend. (Chart 14)

The OBR had expected growth to slow slightly during the 2nd half of 2017 so, given the data published for the year thus far, the UK will do well to meet current forecasts.

That being said, most near-term indicators of business activity – despite the uncertainty – continue to show relatively healthy trading conditions.

The IHS Markit PMI remains strong (above the cut-off of 50 which marks the boundary between expansion and contraction). Conditions appear to be challenging in construction but manufacturing is close to a three year high. (Chart 15).

Business sentiment remains – on the whole – weak but positive. The CBI's measure of business confidence was positive for the third quarter in a row this summer.

But consumer spending is expected to slow further as inflation continues to suppress real earnings and households reign back on some of the debt built up in recent times. (Chart 16)

In August, the Bank of England's team of agents found evidence of consumers becoming increasingly cautious about their spending and trading down to cheaper products or brands.

Inflation is now 2.9% and well above the Bank's target of 2%. See Chart 17 for international comparisons of inflation.

This is well above earnings growth. Already we are beginning to see the political implications of this, with a push toward lifting the public sector pay cap.

Rising inflation is likely to make it particularly challenging for households exposed to rising food and fuel prices. It will also make it much more challenging for families reliant on working age benefits which continue to be frozen in cash terms.

Chart 15: PMIs for UK remains positive – although construction weaker than services or manufacturing

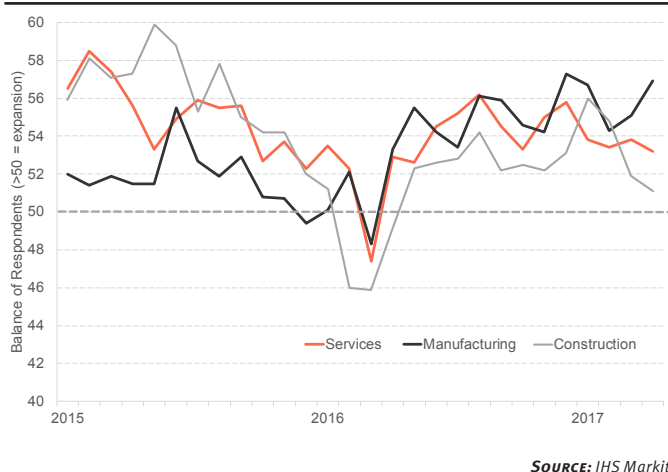


Chart 16: UK consumer credit growth by source since 2013

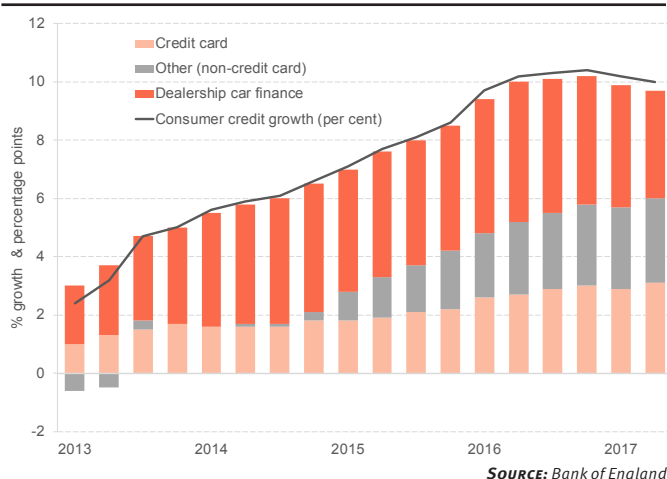
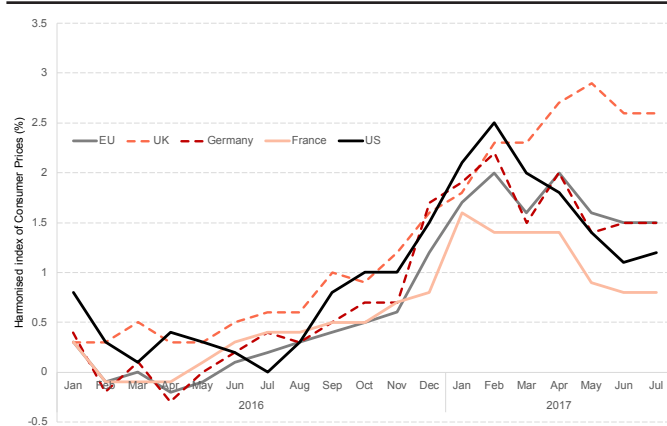
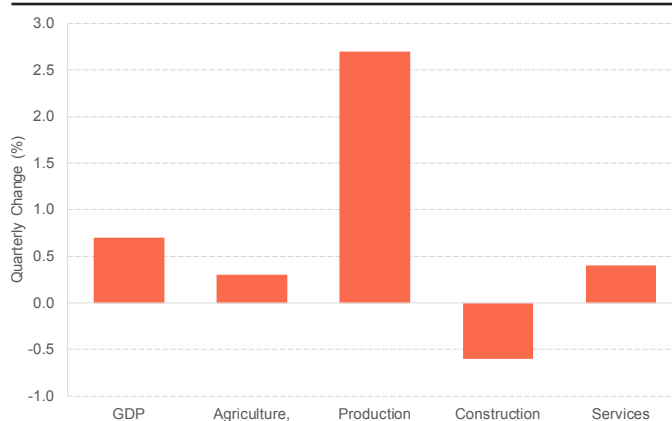


Chart 17: Inflation rates in Europe, the US and the UK



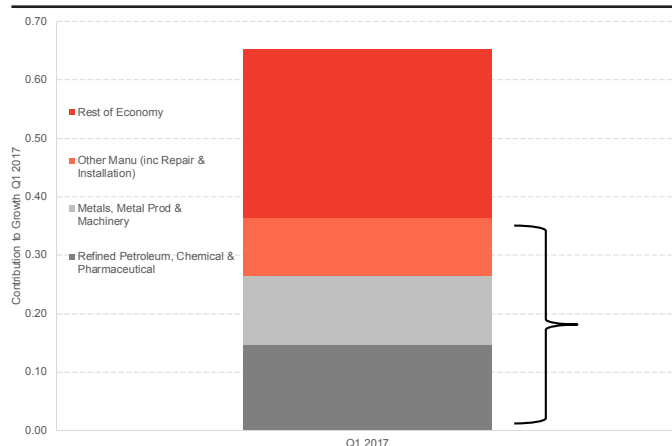
SOURCE: Thomson Reuters Datastream

Chart 18: Scottish GDP growth by sector Q1 2017



SOURCE: Scottish Government

Chart 19: Contribution to Scottish GDP Q1 2017: 3 small sectors contributed over half of net growth



SOURCE: Scottish Government

Recent Scottish economic data

The Scottish economy recorded strong growth during the first three months of 2017 – up 0.7% and significantly above the UK (0.2%).

This was ahead of expectations and what most near-term indicators were predicting at the time.

For services and construction, which together make up over 80% of the economy, performance was less spectacular. Services grew 0.4% (marginally below trend) whilst construction output fell by 0.6%.

What drove the upswing was the strong growth in production of 2.7% - the 3rd fastest quarterly growth on record. (Chart 18).

A closer analysis of this growth shows that 3 sectors – ‘metals & machinery’, ‘refined petroleum, chemicals & pharmaceuticals’ and ‘other manufacturing, repair & installation’ contributed over half of Scotland’s net growth recorded in Q1 (Chart 19).

What is particularly remarkable is that, taken together, these sectors account for just 6% of the entire Scottish economy

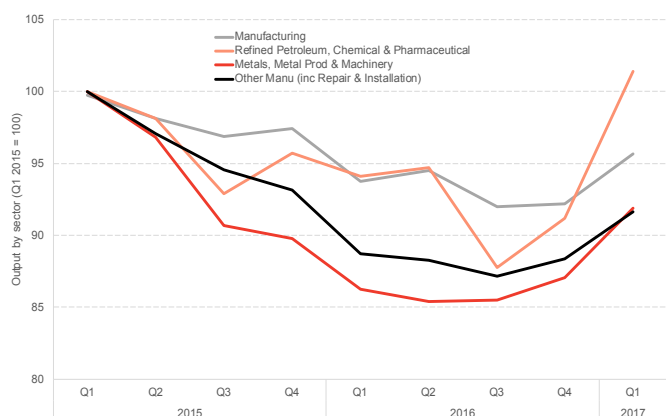
Chart 20 shows how these sectors have been performing since 2015. All three of them have had a challenging few years.

So whilst positive, it is entirely possible that a number of factors which drove the growth in Q1 will have a (large) one-off impact. A degree of success will be maintaining these gains.

Another interesting feature of the figures for Q1 – discussed more below – is that new data published in August shows that net growth in the Scottish economy was driven entirely by external demand.

In fact, it was growth in rUK sales (i.e. exports to the rest of the UK) that supported the strong growth witnessed in Q1, rather than demand within Scotland.

Chart 20: Performance of 3 sectors which drove Scottish growth in Q1 since Q1 2015



SOURCE: Scottish Government

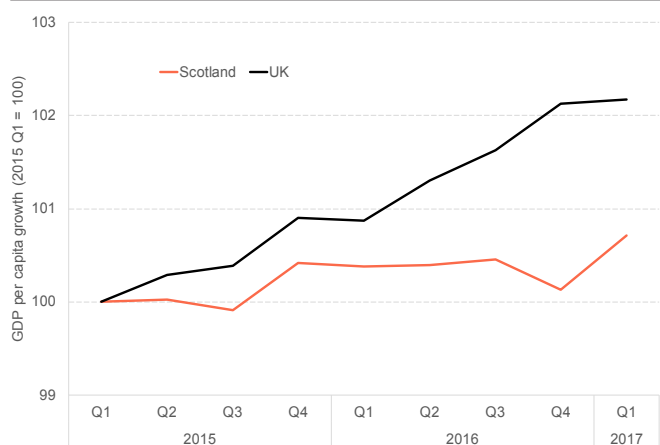
Therefore, whilst welcome, the recent figures should not disguise the relative fragility in the Scottish economy that has been persistent since the end of 2014.

Even with Q1's results, the Scottish economy grew by just 0.6% (and 0.4% on a 4Q-on 4Q basis) for the year as a whole. This is below long-term trend and UK growth of 2.0% for the same period.

When measured in terms of output per head, a similar story emerges (Chart 21).

A divergence of this scale is deemed to be sufficient to trigger the emergency borrowing powers in the Fiscal Framework to cope with 'asymmetric shocks'. This is defined as when Scottish growth is less than 1% and more than 1 percentage point smaller than the UK as a whole.

Chart 21: Scottish & UK GDP per head: Q1 2015 to Q1 2017



SOURCE: Scottish Government

Indeed, output in the Scottish economy actually contracted in 2016 – falling 0.1% over the year (driven in part by the closure of the Longannet power station).

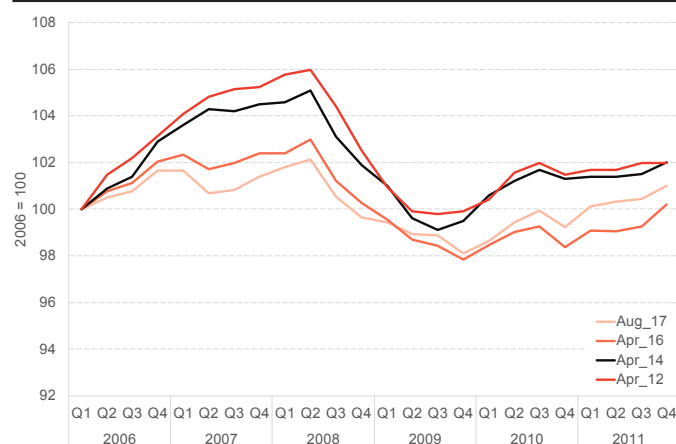
And growth over the past six months has averaged just 0.2%.

Of course, it is also entirely possible that the figures for 2016 and Q1 2017 may be revised in the future.

Economic statistics are always subject to revision, as new data becomes available and models and methodologies are updated.

Interestingly, there have been major revisions over the years to the scale of the recession during the financial crisis – with the downturn now much less severe than at first thought.

Chart 22: Scotland during the Great Recession – perhaps not as great as first thought!

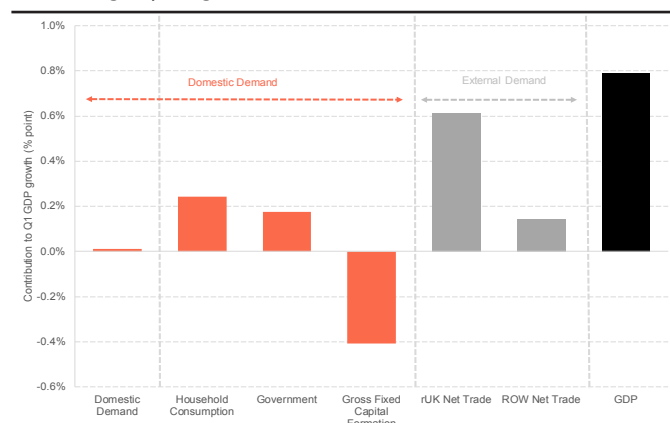


SOURCE: Scottish Government

Chart 22 shows the scale of the recession as estimated in April 2012, April 2014 & April 2016, and finally today (Aug 2017).

In 2012, the peak to trough decline in output (between 2008 and 2009) was estimated at 5.8%. Now the same recession is estimated to have been just 3.9% - about 1/3 less.

Chart 23: Drivers of growth Q1 2017 - weak domestic demand but strong export growth to the UK and ROW



SOURCE: Scottish Government

Drivers of growth

One way of looking at how well-balanced growth is in the economy is to look at ‘domestic’ demand – i.e. from Scotland – compared with external demand.

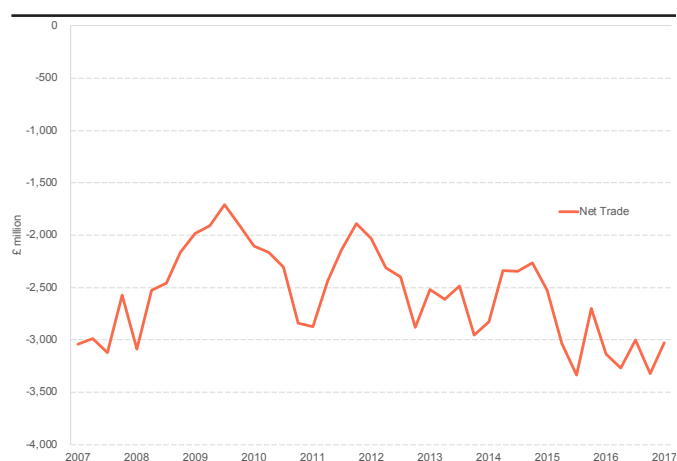
Sustainable growth will show up, not only as steady growth across all sectors, but also shared growth in the sources of demand.

In ‘net terms’ - the domestic market did not grow at all during Q1 2017. Growth in consumption and government spending was offset by a fall in capital investment. (Chart 23)

It was trade that boosted growth. And within that, UK net exports grew 3.0% compared to 0.3% growth in international exports.

That being said, Scotland’s overall trade deficit shows no sign of going away. (Chart 24)

Chart 24: Q1 growth in exports does not eliminate Scotland’s trade deficit



SOURCE: Scottish Government

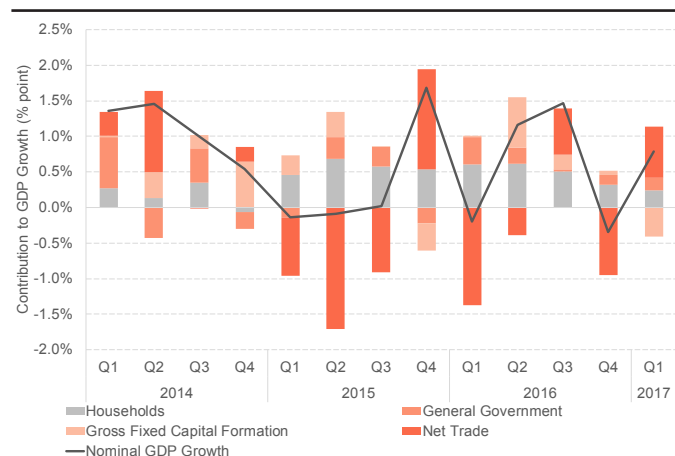
All this adds to the note of caution that is needed when viewing the results for Q1. In short, growth was driven by a small number of sectors bouncing back from a tough couple of years; and, it was demand in the rest of the UK – rather than in Scotland – that propped up the headline results.

The hope however, is that this bounce back will act as a catalyst for momentum to build across the wider economy through the remainder of 2017.

Similar to the UK, household spending had been the dominant driver of growth in Scotland in recent times.

However, the pace of consumption growth has slowed. Q1 saw the smallest contribution to overall growth since 2014. (Chart 25).

Chart 25: Contribution of expenditure components to growth in GDP – since 2014

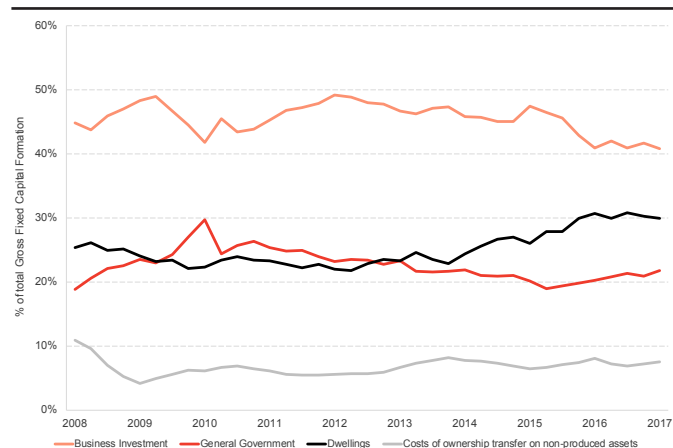


SOURCE: Scottish Government

One area of concern continues to be business investment. Over the year, investment in Scotland was down 7.6% (falling 3.0% in Q1).

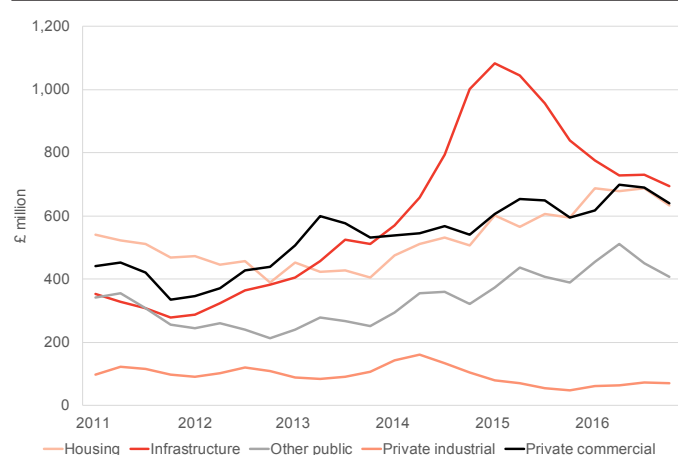
Business investment has been on a downward trend since 2015 as a share of total investment in the economy (Chart 26). Whatever the explanation for this, with investment key to long-term growth it needs to turnaround soon.

Chart 26: Falling business investment as a share of total investment in the economy - since 2008



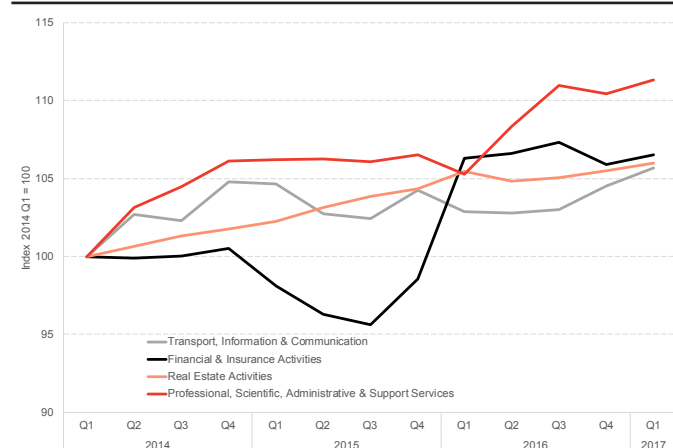
SOURCE: Scottish Government

Chart 27: Construction output (value): growth in infrastructure easing off



SOURCE: ONS

Chart 28: Robust growth in professional and financial service related sectors in Scotland in recent quarters



SOURCE: Scottish Government

Performance by Sector

As highlighted above, manufacturing bounced back strongly in Q1 2017. That being said, activity is still significantly lower than it was just a couple of years ago.

Construction activity continues to decline. The sector has been in recession since 2016. But as Chart 27 highlights, this appears to be a return to more normal levels of infrastructure demand. Infrastructure output peaked in 2015 at the time a number of major projects were being delivered.

In services, some key 'professional' sectors – finance & insurance, real estate, transport & communication, and the professional, scientific & administrative support sector – have performed well in recent times. (Chart 28)

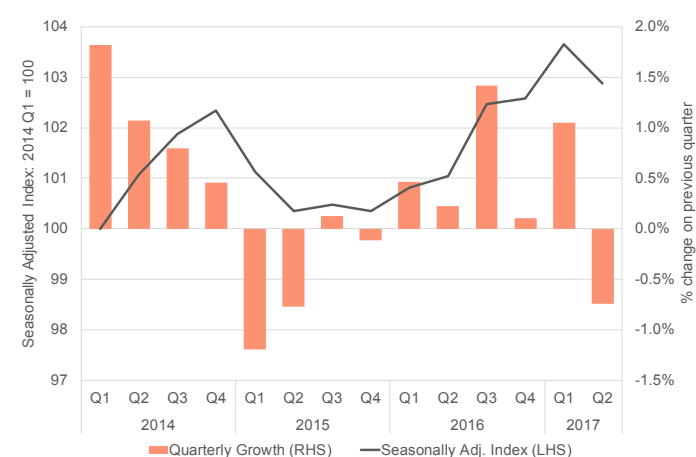
All four – which together make-up 35% of the Scottish economy – have grown over the most recent quarter and the year.

The retail and wholesale, accommodation and food industries have in contrast continued to face a challenging period. Retail and wholesale was down 1.2% over the year whilst accommodation and food services fell 2.2%.

Similar to the wider Scottish economy, house prices have been growing but at a slow pace.

According to Nationwide, over the year, house prices grew by 1.8% in Scotland compared to 2.8% in the UK. But as Chart 29 highlights prices in Scotland actually fell back a little in Q2.

Chart 29: House prices in Scotland



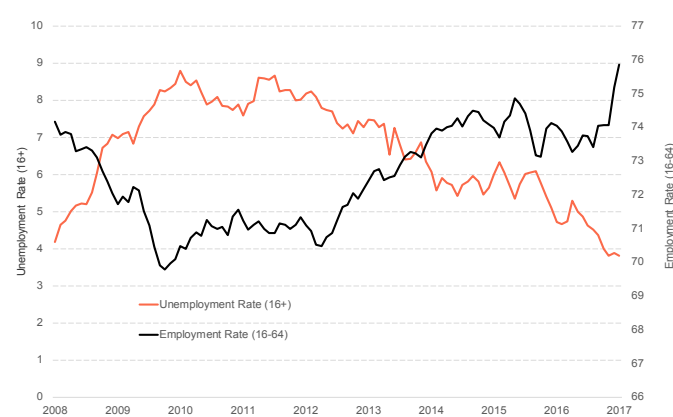
SOURCE: Nationwide

Table 6: Scottish and UK labour market, May-Jul 2017

	Employment (16-64)	Unemployment (16+)	Inactivity (16-64)
Scotland	75.8%	3.8%	21.2%
Quarterly Change	+1.8	-0.2	-1.6
Annual Change	+1.8	-0.9	-1.0
UK	75.3%	4.3%	21.2%
Quarterly Change	+0.5	-0.2	-0.3
Annual Change	+0.8	-0.5	-0.3

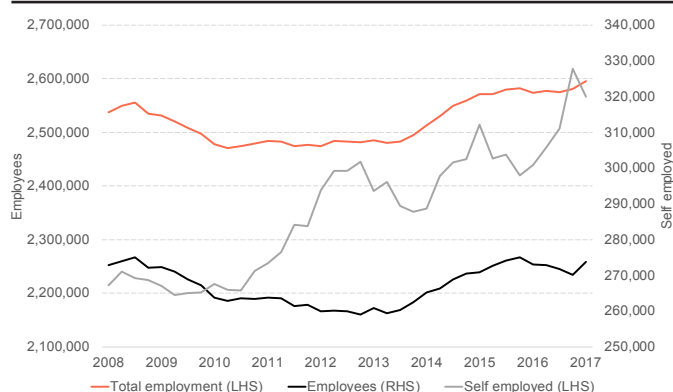
SOURCE: ONS, Labour Force Survey (LFS)

Chart 30: Scottish employment & unemployment Rate: since 2008



SOURCE: ONS, LFS

Chart 31: Scottish employment & self-employment: since 2008



SOURCE: ONS, LFS

The Scottish labour market

Whatever the challenges in the wider economy, Scotland's headline labour market figures remain – at first glance – strong.

The number of people employed in Scotland is now at the highest rate since the Labour Force Survey started to be collected on a consistent basis in 1992.

Scotland's unemployment rate of just 3.8% is a joint record low.

Compared to the UK, Scotland now has a higher employment rate and a lower unemployment rate. (Table 6)

The unemployment rate in Scotland has fallen on a broadly consistent basis over the past 12 months (Chart 30). And the increase in employment in the past year has been substantial, with the number of people in work rising by 44,000.

As Chart 31 shows, this has been driven, in part, by an increase in self-employment. While the self-employment series can be volatile, we are clearly seeing something of a trend. Indeed, self employment is up 20% over the last decade.

Self-employment can encompass a wide range of activities from driving a taxi or being a courier driver, through to being an accountant or lawyer.

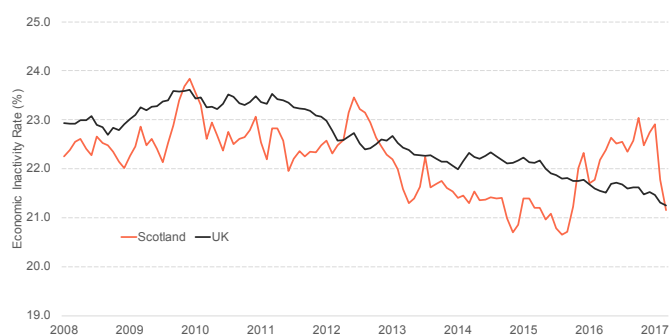
Partly as a result of technological innovation, the self-employed are now a much more diverse group.

For some, self-employment can be associated with better labour market outcomes, more flexibility in work patterns and higher wages. But for others it may come with less stable or rewarding opportunities and fewer employment protections.

The developments in self-employment are part of a wider trend toward non-standard work patterns.

Since the financial crisis, there has been a rise in part-time employment of around 10%.

Chart 32: Scottish & UK inactivity rates (16-64) since 2008 - recent increases falling back



SOURCE: ONS, LFS

Chart 32 shows the rate of economic inactivity in the UK and Scotland since 2008.

Concern mounted through 2016 about the rapid increases in inactivity in Scotland.

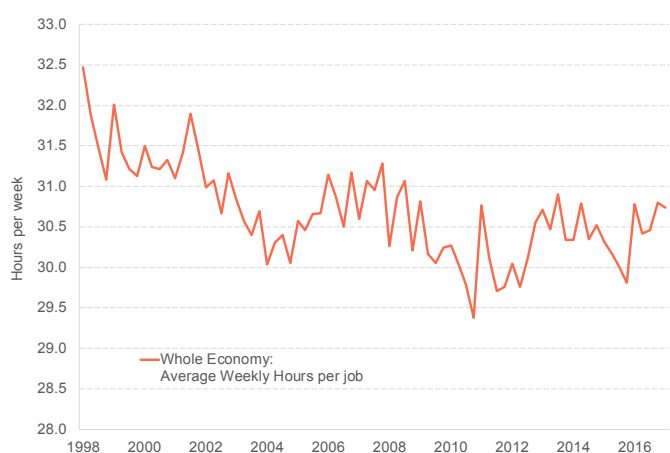
However, over the past few months we have seen these increases fall back, with Scotland now converging back to the same rate as for the UK as a whole.

As highlighted above, employment levels are high. But what is also interesting is that the average weekly hours per job is lower than it was in the late 90s/early 2000s.

So whilst there are more people in work, they are tending to work fewer hours on average. (Chart 33)

Couple this fact with lower real earnings and a picture emerges of a much less healthy labour market than the headline statistics suggest.

Chart 33: Average weekly hours per job - more people in work but working fewer hours



SOURCE: Scottish Government

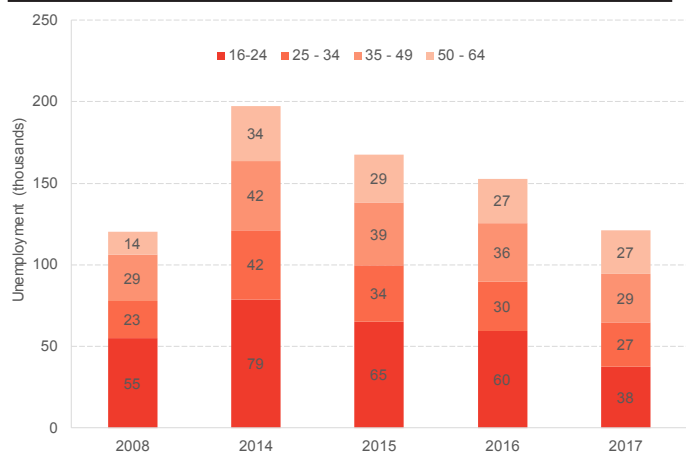
Chart 34 shows the stock of unemployed people in Scotland by age. We can see how the age of Scotland's unemployed has changed over time.

Note particularly the rise amongst older workers.

Scotland's rate of youth unemployment is 9.4% for those aged 16-24 and 6.5% for 18-24 – one of the lowest in the UK.

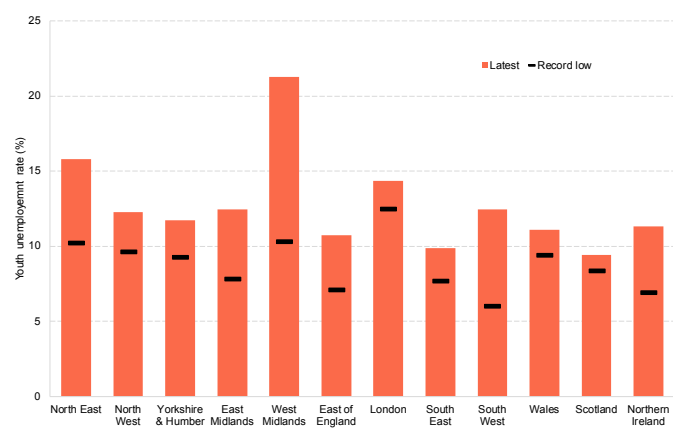
As Chart 35 highlights, it is also close to a record low (indicated by the black bar).

Chart 34: Unemployment by Age Group – Jan to Mar 2017



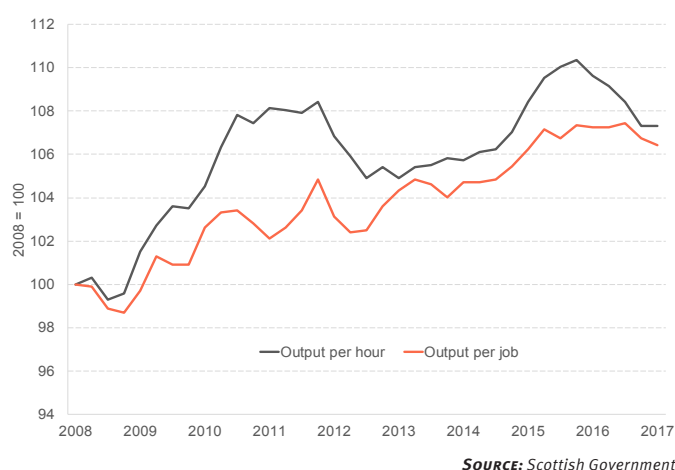
SOURCE: ONS, Annual Population Survey

Chart 35: Youth unemployment (16-24) across the UK – May-Jul 2017



SOURCE: ONS, LFS

Chart 36: Output per hour and output per job : since 2008



As we have outlined before, in recent years Scotland has closed the productivity gap with the UK – both in terms of output per hour and output per job. (Chart 36)

But the UK's record is not one to be proud of. UK productivity lags behind our key competitors – with UK productivity 15% below the G7 average.

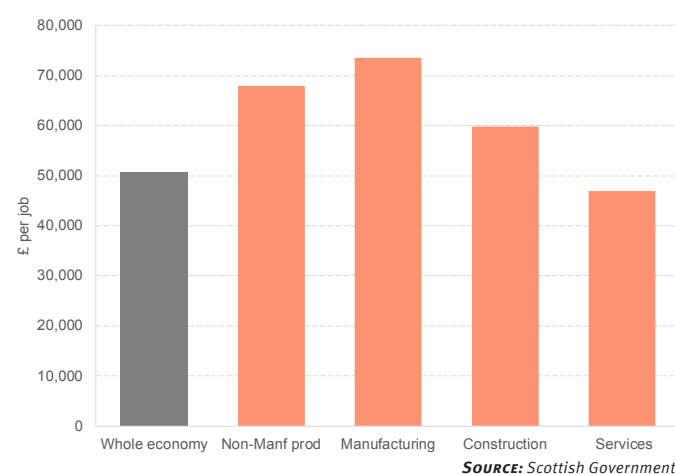
And in recent months, Scottish productivity has slipped back again – with output per hour falling 1.5% over the year.

This could reflect a number of factors including the creation of low-paid jobs and low levels of business investment.

Whatever the cause, stimulating productivity is crucial not only for growth prospects but also household income.

Boosting manufacturing activity will be key to this. As Chart 37 highlights, average levels of productivity tend to be higher than in other sectors. This is one of the reasons why policymakers are so keen to support growth in the sector.

Chart 37: Productivity (output per job) by sector, 2016



Outlook

The emerging economic data over the summer has been – in the main – relatively positive for Scotland.

For the second quarter in a row, the FAI-Royal Bank of Scotland Business Monitor for Q2 2017 showed an increase in the net balance of firms reporting both repeat business and new business volumes improving. (Chart 38).

Whilst the overall net balance is low by historic standards, it is the first time since mid-2015 that both key indicators have been positive.

The Bank of Scotland PMI was 52.2 during August (where >50 marks a balance of firms reporting an expansion in their activities) – just short of a three year high.

The Scottish figure is still lagging the UK average of 54.0 but as Chart 39 highlights, Scotland is now back in the pack of UK regions and nations after being the weakest region for a number of months.

Chart 38: Scottish Business Monitor suggests growth continuing in Q2

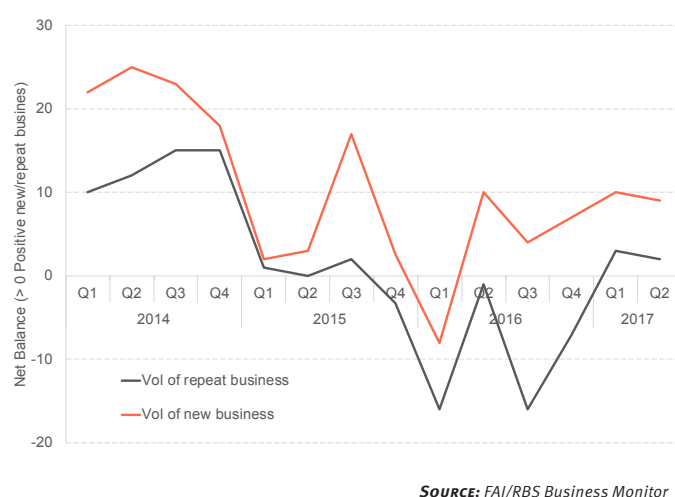
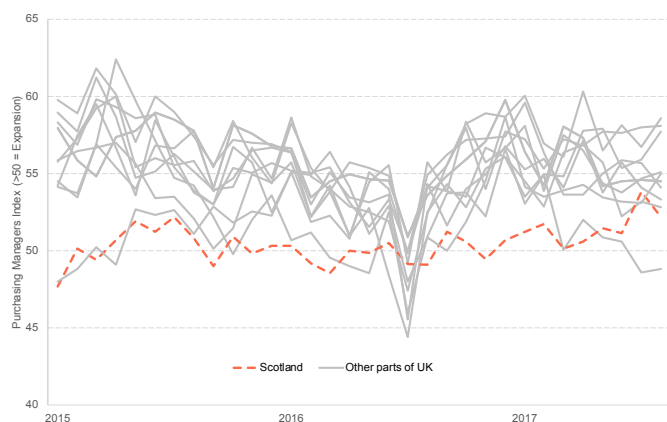
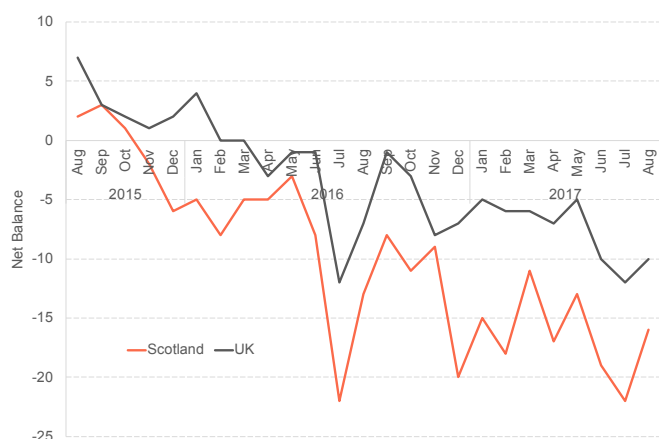


Chart 39: Scottish PMI – bounce back over the summer but trend of lagging most other parts of UK continues



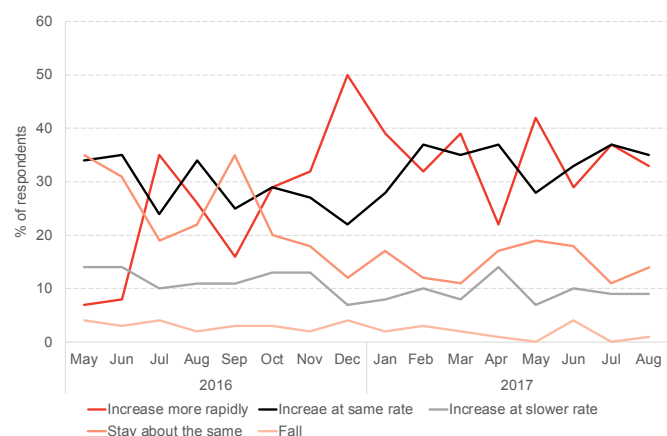
SOURCE: Lloyds PMI

Chart 40: Consumer confidence remains negative – and worse than for UK as a whole (>0 = more optimistic)



SOURCE: GfK

Chart 41: Household expectations for prices over the next 12 months



SOURCE: GfK

In contrast to the slightly more positive sentiment within the business community, levels of consumer confidence have remained weak.

The GfK Consumer Confidence Index (where 0 = balance) was -16 in August.

This was up on July's 12 month low of -22 but clearly it still remains very negative – and not far off the low witnessed in the immediate aftermath of the EU referendum.

The UK index has itself weakened over the summer, but remains 'better' than for Scotland at -10. (Chart 40)

One of the apparent reasons for the decline in consumer confidence undoubtedly relates to how households are viewing the outlook for inflation.

The proportion of consumers who believe that prices will "increase faster" over the next 12 months – either "by a lot" or "by a little" – makes up the majority view. (Chart 41)

It is no surprise therefore that many believe that their financial situation (and that of the economy) will deteriorate over the coming months.

With inflation expected to peak toward the tail end of this year, the outlook for consumers should hopefully start to become more positive in the months ahead, helping to boost growth.

Business surveys also reveal some interesting information about how sectors are performing.

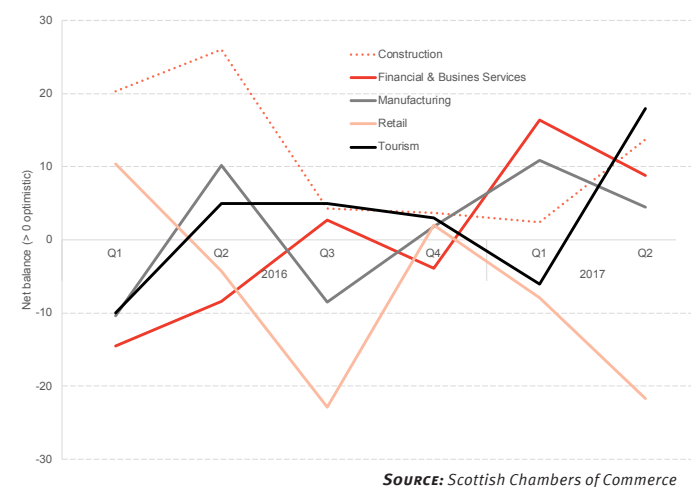
The Fraser of Allander Institute helps support the publication of the Scottish Chambers of Commerce Quarterly Economic Indicator which monitors – alongside a number of other factors – levels of business optimism in construction, retail, tourism, manufacturing, and financial and business services.

As Chart 42 highlights, the level of optimism across most sectors is higher than it was back in 2016.

Optimism in the tourism sector leads the way and this sits with wider reports of the sector having a strong 2017.

Optimism in the construction sector is also positive, which offers some hope to a sector that has been under pressure in recent times.

Chart 42: Optimism positive in most sectors - with tourism leading the way - but confidence remains weak in retail



The one downside continues to be in retail, where despite the official retail sales index showing growth in Q2 (Chart 43), overall optimism remains very weak.

One trend that is emerging quite strongly in the data is a rise in recruitment difficulties. (Chart 44)

In construction and tourism for example, around 60% of businesses in the latest Scottish Chambers of Commerce survey are finding recruitment difficulties an issue.

At the same time, there is also evidence that costs are beginning to have an impact on many firms.

As mentioned above, the FAI/RBS Scottish Business Monitor is reporting growing business orders with tourism and financial services doing particularly well and exports growing.

But the weak pound is also putting pressure on businesses through rising costs. (Chart 45)

56% of all businesses stated that costs rose over the last quarter. Just one in 16 (6%) reported a fall.

Chart 43: Rise in retail sales index – Q2 2017

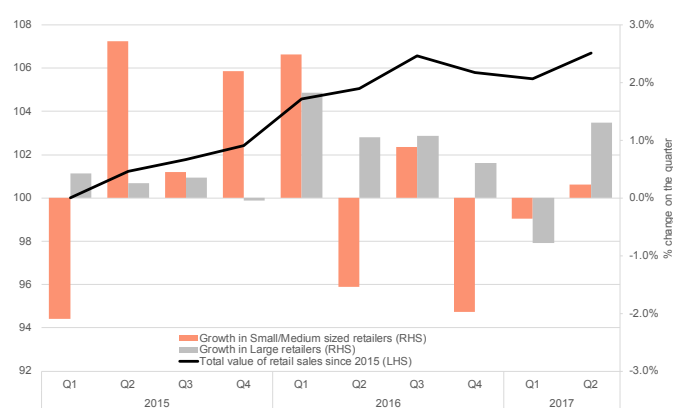


Chart 44: Recruitment difficulties rising across sectors

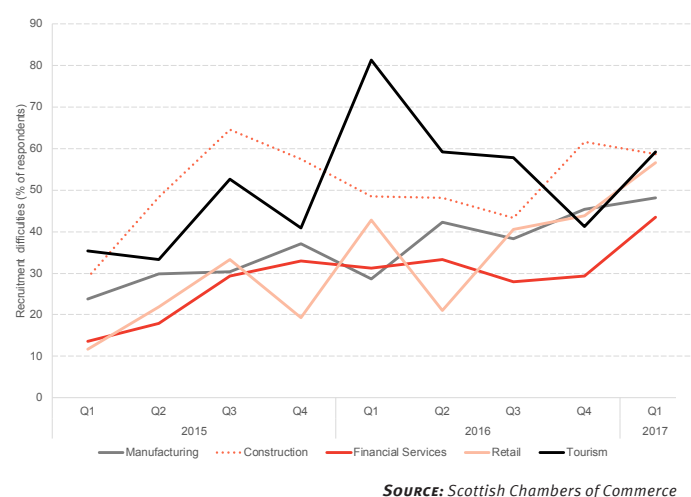


Chart 45: RBS/FAI Business Monitor trends in costs by sector

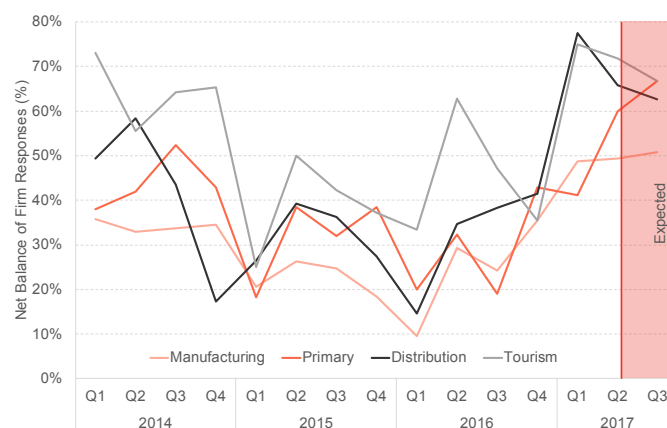
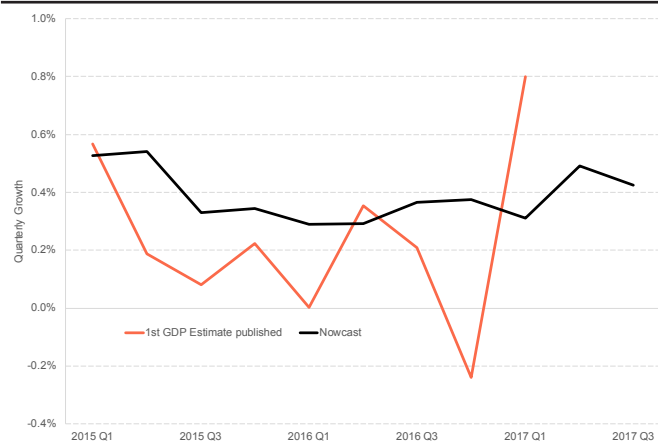


Table 7: Nowcasts for Q2 2017 and Q3 2017 for Scotland

	Q2	Q3
Quarterly Growth	+0.38%	+0.43%
Annualised Growth	+1.52%	+1.71%

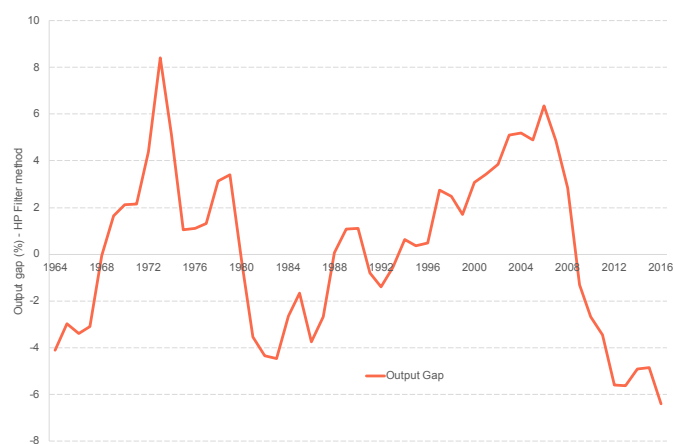
SOURCE: Fraser of Allander Institute

Chart 46: Nowcasts vs. 1st release of GDP estimates



SOURCE: Fraser of Allander Institute

Chart 47: Scottish Output Gap - currently below statistical trend



SOURCE: Fraser of Allander Institute

Table 8: Latest growth forecasts for the UK economy

	2017	2018	2019
Bank of England	1.7	1.6	1.8
OBR	2.0	1.6	1.7
NIESR	1.7	1.9	2.0
European Commission	1.8	1.3	n/a
IMF	1.7	1.5	1.6
ITEM Club	1.5	1.3	n/a

SOURCE: HM Treasury

Forecasts

Before turning to our forecasts, it is helpful to review what our latest ‘nowcasts’ are saying about the immediate outlook.

Our nowcasts use the latest official and unofficial data from a variety of sources (e.g. business and employment surveys) to provide a statistical prediction of what current quarterly growth figures might look like. Our latest figures, including data up to the start of September 2017, predict growth of between 0.3% to 0.4% in Q2 and Q3 of 2017.

Turning to our forecasts, as in the past, we report a central forecast but calculate uncertainty bands to set out a likely range within which we predict Scottish economic growth will lie.

Overall, our forecasts are little changed on June.

Our assessment is still the same - we believe that the Scottish economy will grow this year, but predict that such growth will remain below trend.

In making the forecasts, a number of judgement calls are required.

Firstly, as we have highlighted above, the Scottish economy has been weak now for two years. To the extent that this represents a cyclical downturn, then we could expect the economy to grow more quickly in the near term as it makes up lost ground.

Chart 47 shows the statistical output gap for Scotland – i.e. the difference between actual output and trend. By currently being ‘below trend’ a pick-up with faster growth is likely at some point.

Secondly, we clearly do not live in ‘normal’ times. Brexit uncertainty is beginning to have a cooling impact on the UK economy (Table 8). Scotland is unlikely to be immune from such effects.

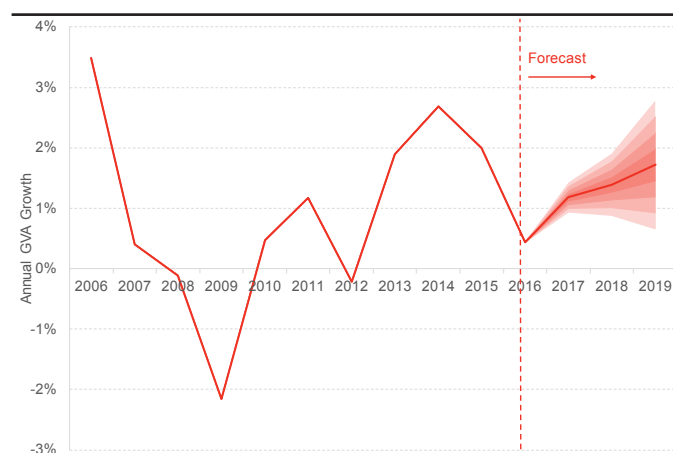
Thirdly, some of the challenges that the Scottish economy has faced in recent times are more structural in nature – e.g. the maturity of the North Sea basin. To the extent that such effects are significant, then we should not expect the economy to bounce back as strongly.

Table 9: Forecast Scottish GVA growth (%) 2017 to 2019

	2017	2018	2019
GVA	1.2	1.4	1.7
Production	1.3	1.6	1.9
Construction	0.7	0.9	1.1
Services	1.2	1.4	1.7

SOURCE: Fraser of Allander Institute

Chart 48: Growth to pick-up in 2018 and 2019 but outlook remains uncertain



SOURCE: Fraser of Allander Institute

* Actual data to Q1 2017, central forecast with forecast uncertainty for 2017 – 2019. Uncertainty bands sourced from accuracy of past forecasts at different forecast horizons

All things considered, **our central forecast is for growth of around 1.2% this year.** (Table 9)

Given Q1's growth of 0.7%, this will be achieved if the Scottish economy matches its average quarterly growth rate for the remainder of the year.

Services will continue to make the greatest overall contribution to growth, however in absolute terms, growth in production is forecast to be slightly higher (remember that services comprise a much greater share of output than manufacturing in Scotland).

Professional services and business services in particular are placed to do well. Tourist facing businesses – such as hotels – have had a strong summer and this should continue into the autumn (boosted by the weak pound).

We expect that the outlook for manufacturing will continue to be more positive – albeit some of the strong growth witnessed in the first three months of the year is unlikely to be sustained.

The anticipated pick-up in food and drink has started to materialise and should continue as the low value of sterling supports growth overseas.

We have maintained our central forecast for growth at 1.4% in 2018 and revised up our outlook for 2019 to 1.7%. (Chart 48)

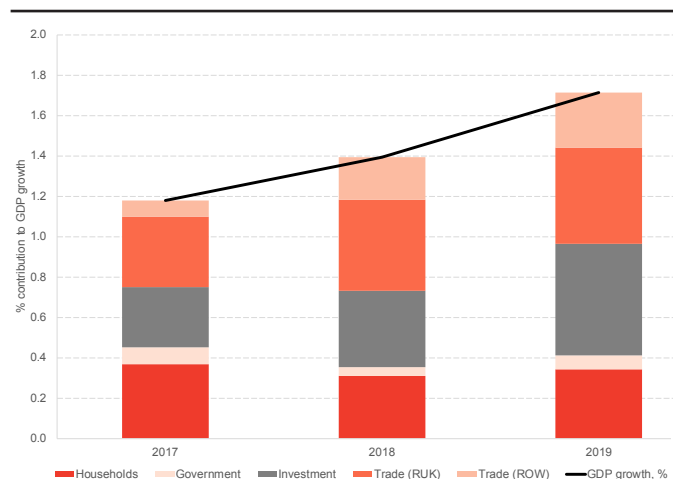
We expect the growth gap between Scotland and the UK to remain over the next couple of years, but to continue to narrow.

Weak earnings growth will mean that household spending – and the industries that they support (e.g. in retail) – will not be as strong as in 2016.

We expect the pressure on earnings to spill-over into 2018 before earnings pick back up again in 2019. (Chart 49)

As greater certainty over the UK's position post-Brexit becomes clearer, we should see some pick-up in investment. Of course, there remains a significant degree of uncertainty about the outlook and what this might mean for business. So this is arguably the element of our forecast with the greatest risk.

Chart 49: Contribution to FAI forecast 2017 to 2019: household contribution to fall back



SOURCE: Fraser of Allander Institute

Table 10: FAI Labour Market forecasts to 2019

	2017	2018	2019
Employee jobs	2,448,600	2,481,900	2,523,700
% employee job growth over year	+0.8%	+1.4%	+1.7%
ILO unemployment	104,400	128,750	134,500
Rate (%) ¹	4.0	4.8	4.9

SOURCE: Fraser of Allander Institute

Notes:

Absolute numbers are rounded to the nearest 50.

1. Rate calculated as total ILO unemployment divided by total of economically active population aged 16 and over.

Net exports will continue to benefit from the depreciation in Sterling, although, the scale of any pick-up will depend upon how able Scottish companies are to take advantage of the opportunity that this provides.

Net trade with the rest of the UK is projected to continue to contribute positively to Scottish growth over our forecast horizon.

Weak earnings growth will mean that household spending – and the industries that they support (e.g. in retail) – will slow sharply.

We expect unemployment to rise slightly toward a level consistent with more medium-term trends of around 5%. So any reported rise in unemployment in the coming months should pose little concern.

Policy Context

In June's Commentary we called for a renewed debate about the future of economic policy in Scotland. There are a number of reasons why we think this is required.

Firstly, it is ten years since the government set out their first Economic Strategy. Much has happened since, not just the financial crisis but also the rapid growth in new technology which is re-shaping markets and changing the way we act as consumers and businesses.

Secondly, it is clear that we live in uncertain times, particularly as the UK prepares to leave the EU.

Thirdly with greater fiscal devolution now in place, boosting Scotland's economic performance is more important than ever.

The Scottish Government has started to set out its emerging thinking in this area in a speech by the First Minister in August and September's Programme for Government.

Here we outline some important themes that we think should shape this debate going forward. Over the next year, we will host a series of workshops to explore these issues.

Where our economy is heading

Scotland is without question an economically rich nation. We are in the OECD top 20 in terms of income per head and near the top in the UK on most long-term indicators. We have substantial natural resources, a skilled workforce and strengths in many sectors.

But it has been widely recognised that we lag our competitors in key areas such as productivity and levels of equality.

Between 2007 and 2017, output per head in Scotland increased by just under 2% (in total, not per year). In stark contrast, between 1999 and 2007 it grew 20%.

And as highlighted in June's Commentary, on many of the government's 'purpose' targets from 2007, we have only made limited progress.

Given the challenges over the last decade – from the financial crisis to oil and gas – the fact that Scotland has maintained its position on many international rankings can be viewed as an achievement.

But the ambition must be to do better.

In looking to the future we need to better define what success looks like.

Part of this is setting out clear and realistic targets for what we want to achieve. These targets should be anchored on the key outcomes of sustainable, inclusive, economic growth.

Public bodies should be encouraged to develop their own ambitious targets and metrics against which they can be judged.

At the same time, we know that the nature of our economy is rapidly changing and whilst this brings opportunities it also brings challenges.

The economic policy debate needs to focus on identifying and preparing for these future trends.

Knowing what works and improving evaluation

With a clear vision of where we want to get to, actually getting there requires a step change in how we design and implement policy.

This means focussing much more – and much more determinedly – on learning what actually works in practice in Scotland.

Most would agree with the overarching principles of the current Economic Strategy. Of course, where opinions differ is how best to realise these ambitions.

But what is of most importance is being guided by evidence on whether a policy or programme is achieving all that is intended of it.

If it is, can it be extended, or rolled-out more widely? If not, why is it not working?

Is the overall policy design right but the practical delivery of the policy poor? Are more resources needed?

Answering these questions is not easy. And ultimately it will require trade-offs. But a greater role for robust policy evaluation is essential.

A new Strategic Board for Enterprise and Skills has been established. For the Board to assess and ensure the efficacy of this activity they need better information and data on the impact of current policy than we currently have.

The Board's focus is on Scotland's skills and enterprise agencies. We would argue that a wider remit is required to extend to all of the public sector – including Scottish Government policies. That way the focus can centre upon the actual outcomes we are trying to achieve, rather than individual policies or the performance of individual institutions.

This will not only help avoid policies being designed, expanded, and defended by assertion rather than evidence, but will offer practical guidance about where resources should be directed.

Priorities and picking winners

Armed with this information, the next step is to actually identify priorities.

In a recent speech, the First Minister identified high-tech and digital innovation as having the greatest potential to impact on growth in the future.

Whilst there is much to agree with in this diagnosis, the important next step is what the government actually does to support that vision.

Re-focussing priorities – with scarce resources – will inevitably lead to winners and losers.

Businesses who presently receive support, could see their service withdrawn in the face of greater investment elsewhere.

This would not be without controversy. But the very fact that the First Minister emphasised a willingness to look at how to “make the most of the money we already spend” – estimated at £2bn per annum on economic development and skills – is perhaps the most significant shift in the government's approach to economic policymaking that we have seen in some time.

The Budget

Ultimately the proof of how ambitious policymakers intend to be will reveal itself in the upcoming budget debate.

As we will outline in our Scotland's Budget: 2017 publication later in September, the public finances remain under pressure both from a tight settlement from Westminster and high profile manifesto pledges.

Reading between the lines from recent statements, the Scottish Government has opened the door to further tax rises. But here they face a challenging balancing act, supporting greater investment in public services – including economic development initiatives – while retaining a competitive tax base.

What is clear is that businesses will seek clarity on how the government's position on raising revenue sits with their ambitions to build a more dynamic and innovative economy.

The role of business

The next few months promises to set the scene for a robust debate on economic policy in Scotland for the next few years and beyond.

It is important that this is not just a debate to be had between government and Parliament.

Instead, businesses – and the wider public sector and third sector – need to pro-actively engage and shape priorities in the months ahead.

At the same time, whilst there is much that government can do to create an environment which encourages high-tech and digital innovation, to realise faster economic growth businesses themselves need to take greater risks; in their investments; in R&D; and their export strategies.

This requires not only the necessary skills to innovate but the leadership within business to seize the opportunities for the future. In a country the size of Scotland, there are also more opportunities for collaboration between businesses, key sectors and higher education.

Conclusions

If the government are serious about a change in emphasis, we could see the policy landscape become much more dynamic.

This is to be welcomed. In a rapidly changing world policymaking needs to become less inclined towards rigidity.

Now that the Scottish Government has set out its thinking, we hope that others from across the political spectrum and beyond come forward with their own constructive ideas to help inform this crucial debate.

For more in-depth analysis of the Scottish, UK and global economies, become a member of the new FAI membership scheme:

www.strath.ac.uk/fraser

Economic Perspectives

The Scottish Fiscal Commission: looking forward to our first forecasts

John Ireland and Mairi Spowage, Scottish Fiscal Commission

Introduction

The Scottish Fiscal Commission (SFC) is the independent fiscal institution for Scotland and was established on 1st April 2017 under the Scottish Fiscal Commission (2016) Act. The Commission is responsible for producing independent and official forecasts of Scottish GDP, devolved tax receipts and devolved demand-led social security expenditure, and will publish our first independent and official forecasts to inform the next Scottish Budget later in 2017.

Previously the Commission operated as a non-statutory body from June 2014 to March 2017, providing independent scrutiny and assessment of Scottish Government forecasts of receipts and economic determinants from devolved taxes at that time. We published three reports on the Scottish Government forecasts and two reports evaluating them.¹

The new legislation in the Scotland Acts 2012 and 2016 has significantly increased the financial powers of the Scottish Parliament. Through its remit to provide forecasts and assessments to inform the Scottish Budget, the Commission plays a central role in the management of this revenue. Our forecasts support the planning of expenditure by the Scottish Government and the scrutiny of the Budget by the Parliament, with the aim to enhance confidence in the fiscal decision-making process in Scotland.

The Commission currently has three Commissioners: Lady Susan Rice, as Chair, Professor Alasdair Smith and David Wilson. For more information about the Commissioners, please see the SFC website.²

International Context

The Scottish Fiscal Commission is one of a growing number of Independent Fiscal Institutions (IFIs) internationally. We are part of the OECD Network of such bodies, which aims to promote best practice and peer review and learning.

The OECD has identified good practices for designing and operating effective IFIs through the OECD Recommendation on Principles for Independent Fiscal Institutions.³ The Commission will follow these principles in the way it produces forecasts and how it communicates its work, including the development of our Corporate Plan, covered further below.

The Commission's approach to forecasting

A key part of the establishment of the Commission as a statutory body is the development of forecasting models and processes that will assist in fulfilling our statutory remit.

1. <http://www.fiscalcommission.scot/publications/non-statutory-reports-on-scottish-draft-budget/>

2. www.fiscalcommission.scot

3. <http://www.oecd.org/gov/budgeting/recommendation-on-principles-for-independent-fiscal-institutions.htm>

Earlier this month, we published a paper on our current approach to forecasting ⁴ that sets out our intended approach to forecasting the economy, taxes and social security payments. Alongside this, we published our first statutory Forecast Evaluation Report ⁵ that analyses how and why the forecasts produced by the Scottish Government were different from the tax revenue actually raised. This article summarises the key points from both reports and seek to draw out some of the implications for the Commission's first statutory forecasts to be published later in the year alongside the Scottish Government's Draft Budget for 2018/19.

In addition, we have recently published our draft Corporate Plan for 2017-2020 ⁶, and would welcome any views on the content of the Plan. Later in this article we summarise the key questions we are asking of interested stakeholders as part of this consultation.

The Commission has taken over responsibility for a range of statistical models from the Scottish Government, which were developed to provide forecasts for previous rounds of the Scottish Budget. These models and forecasts were scrutinised by the Commissioners over the last three Budget rounds, including in our most recent forecast evaluation. The Commission has spent this year updating, developing and refining these models and developing new forecasting models where appropriate. More details about the different approaches used are described later in this article.

The limitations of forecasting

The future is uncertain. Forecasting is an inexact science and at any point in time there is a range of potentially valid and reasonable forecasts that could be made. A forecast cannot generally be judged to be right or wrong at the time of making.

The past is an imperfect guide to the future in a rapidly changing global economic, social, political and technological environment. Analytical models, based on historic data and theory, can help provide some insight into how the economy and public sector finances may change over time, but all models have limitations. Forecasts cannot be expected to predict the future perfectly.

The Commission will always have to rely on subjective judgement in creating its forecasts where there exists uncertainty or limited evidence. For example, the Commission may form judgements on:

- The long term outlook for productivity in Scotland, reflecting the global economic situation
- Behavioural responses to any changes in fiscal policies in Scotland and the UK
- The likely trends in migration, population and trade as the United Kingdom's relationship with the European Union changes

There is a range of possible approaches to factoring each of these issues into the relevant forecast. Judgements will be made on the basis of the best evidence and intelligence available at the time of publication, but may change from one forecast to the next as the economy evolves and our understanding develops along with it.

The Commission will aim to present informed and transparent forecasts which provide the best, unbiased judgement against a broad range of possible outcomes. In doing so, the Commission recognises that forecasts will be subject to forecasting error: the economy may not develop fully as expected, the effect on tax receipts may not be entirely as predicted and input data may be revised. Forecasting is an on-going process of intelligence-gathering, learning from previous forecasts, reflection and refinement.

4. Scottish Fiscal Commission (2017) "Current Approach to Forecasting"

<http://www.fiscalcommission.scot/publications/occasional-papers/current-approach-to-forecasting-september-2017/>

5. Scottish Fiscal Commission (2017) "Forecast Evaluation Report"

<http://www.fiscalcommission.scot/publications/forecast-evaluation-reports/forecast-evaluation-report-september-2017/>

6. <http://www.fiscalcommission.scot/news/corporate-plan-consultation/>

In recognition of the likelihood that outturns will differ from forecasts, the Commission will evaluate its forecasting performance. The Commission will publish an annual assessment of how and why outturn differed from the forecast and how it will implement measures to deliver continuous improvement in its approach to forecasting. Our recent Forecast Evaluation Report – September 2017 is our first such assessment.⁷

The Commission's latest forecast evaluation

Forecasting is an on-going process of intelligence gathering, learning from previous forecasts, reflection and refinement. Our previous reports accompanying the Draft Budget have highlighted some of the uncertainties and outlined the scale of risk in forecasting.

However, as highlighted above, forecast error and subsequent evaluation is an integral part of a good forecasting process. It is worth noting that when we refer to 'errors', this refers to the difference between what was forecast and the latest data on tax raised. We are not implying that these are mistakes in forecasting, or that the error could have been avoided.

Land and Buildings Transaction Tax

Land and Buildings Transaction Tax (LBTT) is the tax paid when land and property is purchased. LBTT operates differently for residential and non-residential transactions. Residential LBTT also includes the Additional Dwelling Supplement (ADS) which is payable on additional residential properties such as second homes or buy-to-let properties. LBTT was devolved in 2015.

The Scottish Government produced forecasts for 2016-17 in December 2015 and December 2016, alongside Draft Budgets. Both forecasts were evaluated in our recent report.

The residential LBTT forecast is sensitive to changes in house prices and the volume of transactions (purchases). Any difference in either prices or transactions compared to the forecast will result in an overall forecast error. The forecasts produced in December 2015 overestimated residential LBTT revenues in 2016-17 by £68 million because the house price forecast was too high.

In contrast, the forecasts produced in December 2016⁸ underestimated the amount of revenue raised by residential LBTT by £33 million in 2016-17. For this forecast, the methodology for forecasting prices had been revised, which was one contributory factor in the house price forecast being too low.

The Scottish Government used a statistical model to estimate how many residential purchases are in each price bracket. Analysis of the tax raised shows this distribution provides a reasonable estimate of the pattern of residential transactions. Revenue from the Additional Dwelling Supplement (ADS) was significantly higher than initially forecast by the Scottish Government in December 2015. This was because the forecast for the number of purchases liable for ADS was too low. Now that there is more information available about the proportion of purchases that are additional properties, this error should reduce in future forecasts.

The non-residential LBTT forecast produced in December 2015 overestimated revenues by £44 million. The most significant factor in this error was that the forecast for prices was too high.

7. Scottish Fiscal Commission (2017) "Forecast Evaluation Report"

<http://www.fiscalcommission.scot/publications/forecast-evaluation-reports/forecast-evaluation-report-september-2017/>

8. That is, the forecasts produced for Draft Budget 2017-18. The in-year forecasts made in December 2015 (i.e. forecast for the year 2015-16) and in December 2016 (i.e. forecast for the year 2016-17) are not official Government forecasts and were not published in the Draft Budget documents. However, these forecasts were produced at the time of each Draft Budget and provide useful information for this assessment.

Previous Commission reports have noted that this element of tax revenue can be changed significantly by a very few high priced transactions, which makes it difficult to forecast accurately. In 2016-17, 35% of non-residential LBTT came from the 1% highest priced purchases.

Table 1: LBTT forecasts compared to tax raised (£ millions)

		2015-16	2016-17
	Tax Raised	208	214
Residential LBTT (exc. ADS)	SG Forecast December 2015	227	282
	SG Forecast December 2016		181
	Tax Raised (net basis) ¹⁰		90
Additional Dwelling Supplement ⁹	SG Forecast December 2015		36
	SG Forecast December 2016		71
	Tax Raised	217	176
Non-residential LBTT	SG Forecast December 2015	210	220
	SG Forecast December 2016		228

SOURCE: Revenue Scotland statistics (11), Scottish Government Draft Budget 2016-17 (12), OBR (2015) Economic and Fiscal Outlook November 2015 Devolved Taxes Forecast (13), Scottish Fiscal Commission (2016) Report on Draft Budget 2017-18, Table 15 (14).

Non-Domestic Rates

Non-Domestic Rates (NDR), commonly known as “business rates”, are paid by owners, tenants or occupiers of non-domestic properties. The ‘rateable values’ for all properties in Scotland are recorded publicly on the Valuation Roll. These properties are normally revalued every five years, although the latest cycle has been seven years long.

The Commission’s previous role on NDR considered only how the tax rate changes due to inflation and how the total rateable value of all properties may change over time (known as ‘buoyancy’). Some changes to this total value, which can be thought of as the tax base, are linked to the economy, such as the addition or removal of properties, but other administrative changes and some types of appeals can also have an impact.

Because of the number of different drivers of the changes in the size of this tax base, forecasting can be difficult. The Scottish Government have generally forecast NDR revenue by examining how this has changed in the past over the revaluation cycle. However, 2016-17 was unusually the seventh year in a cycle. The average growth during years three to five in previous cycles was used to forecast growth in the value for 2016-17.

9. The ADS tax raised is not the final figure owing to an 18 month window for transferring main residence, selling the previous main residence property (and subsequently reclaiming paid ADS)

10. As at 31st May 2017

11. <https://www.revenue.scot/about-us/publications/statistics/land-and-buildings-transaction-tax-statistics-0>

12. <http://www.gov.scot/Publications/2015/12/9056>

13. <http://budgetresponsibility.org.uk/efo/economic-and-fiscal-outlook-november-2015/>

14. <http://www.fiscalcommission.scot/media/1098/draft-budget-2017-18-report.pdf>

Scottish Landfill Tax

Scottish Landfill Tax (SLfT) is a tax on the disposal of waste to landfill. The forecast produced in December 2015 underestimated revenue raised by Scottish Landfill Tax in 2016-17 by £14 million, an absolute percentage error of 10%. The forecast underestimated the level of standard-rated waste, which generates over 90% of revenue. The decline in waste was not as significant as was implied by the Scottish Government model, which assumed landfill targets would be met by 2025.

Table 2: SLfT forecasts compared to tax raised (£ millions)

	2016-17
Tax Raised	147
SG Forecast December 2015	133
SG Forecast December 2016 ¹⁵	150

SOURCE: Scottish Government (2015) Devolved Taxes Methodology 2016-17 (16); Scottish Government (2016) Devolved Taxes Methodology 2017-18 (17)

This had been noted as a risk in the approach taken in previous Commission reports and the Scottish Government subsequently revised their forecast methodology. Following this revision, the in-year forecast produced as a baseline for the Draft Budget 2017-18 had a relatively small error at just £3 million. This can be explained by the seasonality of the waste being different to the previous year.

Forecasting - area by area

As outlined above, the Commission is developing its forecasting models and processes to assist us in fulfilling our statutory remit. The Commission's current intended approach to forecasting, at a very high level, is summarised below. This approach will feed into the Commission's forecasts published alongside the Scottish Government Draft Budget later in the year. As new information and analysis emerges, the forecasts produced for the Draft Budget 2018-19 and future Draft Budgets may differ in some details to what is set out below.

Economy

The Commission produces economic forecasts for two reasons:

- To fulfil its remit of providing quarterly forecasts of onshore Gross Domestic Product (GDP) ¹⁸ and;
- To provide information on the economic variables that feed into the Commissions fiscal forecasts, such as wages, employment and hours worked that feed into the income tax forecast.

The forecasts are created on a consistent basis through a large and disaggregated economic forecasting system. This produces forecasts of a number of economic factors to help shape the forecasts of the critical variables mentioned above or sense check the forecast.

¹⁵ The in-year estimate produced in December 2016 is not an official Scottish Government forecast.

¹⁶ <http://www.gov.scot/Publications/2015/12/7589>

¹⁷ <http://www.gov.scot/Publications/2016/12/6669>

¹⁸ Onshore GDP is used as shorthand in referring to Scotland's GDP excluding the value of oil, gas and other hydrocarbons produced in the Scottish sector of the UK continental shelf as defined in the Scottish Fiscal Commission Act 2016: <http://www.legislation.gov.uk/asp/2016/17/crossheading/functions>

This is the same basis as the headline GDP figures published by the Scottish Government: <http://www.gov.scot/Topics/Statistics/Browse/Economy/GDP>

The Commission's economic forecast will focus on onshore GDP, disaggregated by the components of expenditure: household consumption; government spending and trade, and also the labour market. We do not plan to produce separate forecasts of:

- different industries – for example manufacturing or construction
- individual regions of Scotland
- incomes of different types of households – e.g. by type/level of income
- the UK as a whole

The remit of the Commission requires that we produce onshore GDP growth forecasts for Scotland - that is excluding economic activity in the UK Continental Shelf - although we do consider the oil & gas extraction industry's impact on the onshore economy, such as through the supply chain.

A range of models are used to forecast the economy. These include theory-based structural econometric models of the economy, empirically based time-series models, and simple trend projection models. Whilst the models used can help provide insight and guidance, judgement plays an important role. Judgment is required in both how the models are operated, and how the results from different models are used and combined. Ultimately, the forecast will be driven by the judgement of the Commissioners, rather than depending mechanistically on the output of any one model.

Short-term forecast models attempt to anticipate any shocks or volatility in the economy, primarily driven by shocks to the demand side of the economy. This volatility is modelled with less theoretical and more empirically driven time-series approaches, using recent economic data and surveys of the Scottish and UK economies. This approach, based on ARIMA models¹⁹, is appropriate for the first few quarters of the forecast, but has a limited time horizon, after which more structural and theoretical models are needed.

The long-run outlook is anchored to theoretical supply constraints of the Scottish economy. We combine trend forecasts of population, the labour market and productivity (the amount that can be produced per hour worked) to generate potential output or the maximum amount of goods and services the economy can sustainably produce. This forecast in particular will be heavily influenced by the judgement of the Commissioners.

The final part of the forecast process is to connect the short-run forecasts to the long-run supply projections. This is primarily done using a large structural model of the Scottish economy called SGGEM²⁰. Some components of aggregate demand, such as trade and public sector output, are constructed in stand-alone models.

Otherwise, the pathway of the labour market, wages, inflation and consumption are modelled using a theoretical framework, aiming to align demand with supply over the forecast horizon. Consideration will also be given at this stage to any additional factors that may affect the pathway of the economy over the forecast horizon.

Income Tax

The Scotland Act 2016 transferred to the Scottish Parliament the power to set non-savings and non-dividend²¹ (NSND) income tax rates and thresholds, with the exception of the personal allowance. Since April 2017, the Scottish Government receives all the revenue from income tax on the NSND income of Scottish taxpayers.

19. Auto-Regressive Integrated Moving Average. See Box 2.1 in our Current Approach to Forecasting report for more details. <http://www.fiscalcommission.scot/publications/occasional-papers/current-approach-to-forecasting-september-2017/>

20. SGGEM is a model based on the National Institute for Economic and Social Research's NiGEM model. See Box 2.2 in our Current Approach to Forecasting Report for more details

21. This is primarily income from employment, pensions and property

The responsibility for defining the income tax base, including setting or changing income tax reliefs and the personal allowance, continues to rest with the UK Government. HMRC remains responsible for the collection and management of Scottish income tax. It is HMRC's responsibility to decide who is and who is not a Scottish taxpayer as provided for in legislation. The Scotland Act 2012 defines a Scottish taxpayer as someone who is a UK taxpayer and has their main place of residence in Scotland.

Future income tax revenues will be primarily driven by the number of taxpayers and their incomes. Forecasts of earnings and employment are taken from the core economic forecast. Relatively small changes in these economic determinants may lead to significant changes in the income tax forecast.

The income tax system has a progressive structure where tax rates increase with income. Therefore, the data on the distribution of incomes are an essential input to the forecast. These are captured by using the detailed income tax dataset the Survey of Personal Incomes (SPI). The economic determinants are applied to the SPI dataset to forecast income tax over the forecast horizon.

Land and Buildings Transaction Tax

The Scotland Act 2012 devolved Stamp Duty Land Tax to the Scottish Parliament from April 2015. Following this, Land and Buildings Transaction Tax (LBTT) replaced Stamp Duty Land Tax in Scotland.

LBTT is paid on the purchase of property and land. The two components of LBTT are residential and non-residential (commercial) property. Residential LBTT also includes the Additional Dwelling Supplement (ADS) which is payable on additional residential properties such as second homes or buy-to-let properties. Forecasts of house prices and transactions are the key drivers of future LBTT revenues.

The core residential LBTT is a progressive tax so the charge is proportionate to the actual price of the property. The percentage rate for each band in LBTT is applied only to the part of the price over the relevant threshold and up to the next threshold ²².

The core residential LBTT model uses publicly available quarterly data from Registers of Scotland ²³ to create a simplified and representative distribution of house prices and transactions in Scotland. This distribution is then projected forward to produce a 5 year forecast of the price, distribution and number of transactions in Scotland.

Non-residential revenues are significantly influenced by a small number of transactions generating most of the revenue.

This makes non-residential revenues volatile and difficult to forecast.

Currently, the non-residential revenue forecast is calculated by applying the price and transaction growth rates to an average of the previous three years of revenues uplifted by inflation.

Non-Domestic Rates

Non-Domestic Rates (NDR) is an annual tax paid by the owner, tenant or occupier of non-domestic properties. The amount of tax paid is dependent on the rateable value of the property, the tax rate (also known as poundage) ²⁴ and any reliefs, exemptions or supplements applied to the property.

The current model used to forecast the contributable amount of NDR makes use of available data from the Scottish Assessors and Local Authority returns. First, the model uses data from the Scottish Assessors As-

22. Revenue Scotland information on LBTT: <https://www.revenue.scot/land-buildings-transaction-tax/>

23. Registers of Scotland quarterly house price statistics : <https://www.ros.gov.uk/property-data/property-statistics/quarterly-house-price-statistics/changes-to-our-quarterly-house-price-statistics-release>

24. Business Rates Guidance : <https://www.mygov.scot/business-rates-guidance/how-your-rates-are-calculated/>

sociation (SAA) on total rateable value in Scotland to estimate and forecast the tax base. Then, the tax rate and any supplements are applied, followed by the deduction of reliefs and a number of other adjustments.

Air Departure Tax

From April 2018, Air Departure Tax (ADT) will replace UK Air Passenger Duty (APD) in Scotland. In June 2017, the Scottish Parliament passed the primary legislation enabling ADT. ADT will broadly mirror the structure of APD.²⁵

APD is a tax paid on passengers departing from UK airports. The amount of tax paid depends on the passenger's class of travel and their final destination.

Under APD, destinations fall into two bands based on flight distance from London. The higher band applies to countries further than 2,000 miles from London. As APD applies to the final destination, connecting flights are exempt. ADT will include this exemption.

There are a number of other exemptions to ADT included in the Bill, such as passengers under the age of 16 travelling in the lowest class.

The rate of APD paid is determined by the class of travel. The reduced rate applies where passengers are travelling in the lowest class available. The standard rate applies to passengers travelling in any other class of travel and the higher rate applies to private jets.

The Scottish Government will present the proposed tax rates and bands for ADT with the secondary legislation. This is due in autumn 2017.

We are in the process of developing a model to forecast ADT receipts. The model currently uses the historic time series of Scottish passengers to forecast future passenger numbers. The CAA survey data allocate these passengers into the different bands and classes. The appropriate tax rate will then be applied to these passengers to estimate total ADT receipts.

The Commission has engaged with the OBR on their forecasting approach for the UK APD regime. Their forecasts use the correlation between GDP and the number of passengers in each tax band to forecast receipts. A separate adjustment is made to account for the rise in low cost operators. The Commission will review their methodology alongside other approaches and consider the available data to assess the most appropriate methodology to forecast ADT receipts.

Scottish Landfill Tax

Scottish Landfill Tax (SLfT) is a tax on the disposal of waste to landfill. The power to set a tax on landfill deposits was devolved to the Scottish Government as a result of the Scotland Act (2012). From 1st April 2015, Revenue Scotland became responsible for collecting revenue for the newly created SLfT, which replaced the previous UK-wide tax.

The amount of tax payable is determined by the weight of waste being disposed of on the basis of two rates. The current standard rate of SLfT is £86.10 per tonne and the lower rate is £2.70 per tonne for certain inert materials such as naturally occurring soil and rocks.

The approach makes use of outturn data from Revenue Scotland on the amount of standard and lower rate

25. Air Departure Tax (Scotland) Act 2017 : <http://www.legislation.gov.uk/asp/2017/2/contents/enacted>

waste being landfilled, which is then projected forward to give a baseline level of landfill waste over the forecast horizon.

Adjustments are then made to this baseline to take into account anticipated increases in the capacity of alternative waste treatment facilities across Scotland. These facilities are an alternative to landfilling waste, and, once operational, can be expected to reduce the level of waste being landfilled.

After accounting for changes to alternative waste treatment capacity across Scotland in the baseline, a forecast of revenue is made by applying the relevant tax rate to the forecast amount of waste. The rates of tax for landfill have previously been assumed to increase with RPI, in line with the current stated UK government policy.

Social Security

The Scottish Fiscal Commission is responsible for producing forecasts of devolved demand-led social security expenditure to inform the Scottish Government's budget. The Scotland Act 2016 devolved a number of demand-led social security benefits to Scotland. These benefits are:

- Disability Living Allowance
- Personal Independence Payment
- Attendance Allowance
- Carer's Allowance
- Industrial Injuries Disablement Benefit
- Severe Disablement Allowance
- Sure Start Maternity Grant (to be replaced by the Best Start Grant)
- Funeral Payments (to be replaced by Funeral Expense Assistance)
- Winter Fuel Payments
- Cold Weather Payments

The transfer of these powers will be phased with the first benefits due to be devolved from summer 2018. The Scottish Government has announced that an increased Carer's Allowance will be devolved from summer 2018 and the Best Start Grant and the Funeral Expense Assistance will be devolved by summer 2019.²⁶

The Commission has begun preparations to forecast the demand-led social security benefits likely to be included in the Draft Budget 2018-19. This builds on work already undertaken in the Scottish Government to develop forecast models for the benefits being devolved. This development work will continue over the autumn. The first forecasts of devolved, demand-led social security expenditure will be published to accompany the Scottish Government's Draft Budget 2018-19 and will cover the benefits devolved in 2018-19.

The benefits being devolved are largely linked to ill-health, disability, maternity, caring and age. Demographics, eligibility criteria and the take-up rates for these benefits will be important factors in determining the level of expenditure on each benefit rather than other common factors, for example the performance of the economy. This presents challenges for forecasting expenditure and, particularly in the case of changes to benefits, a wide range of data sources will be used to estimate expenditure.

Developing the Commission's first Corporate Plan

The Scottish Fiscal Commission is seeking views on its first Corporate Plan. The Plan covers the first three years of the Commission's operation from 1 April 2017-2020.

26. Scottish Government news release on Social Security benefits: <https://news.gov.scot/news/social-security-benefits>

We have sought views from a number of stakeholders, both in the lead-up to and since becoming a statutory body on 1 April 2017; these discussions have fed into the development of the current draft Corporate Plan. In the draft plan, we define our mission:

As Scotland's independent fiscal institution, the Scottish Fiscal Commission will produce independent, official forecasts

We intend to fulfil this mission through the delivery of our statutory duties and strategic objectives.

We will be:

- Independent
- Transparent
- Accessible, and
- Open

Our remit, which is set out in the Scottish Fiscal Commission Act, is to provide independent forecasts and assessments to inform the Scottish Budget.

Over the first three years we aim to achieve this by:

- Delivering trusted, reliable and accessible economic and fiscal forecasts.
- Working openly and constructively with stakeholders while maintaining our independence.
- Increasing understanding through active external engagement and clear publications.
- Building an organisation with robust governance, knowledgeable staff and transparent processes.

We are keen to hear from interested stakeholders on the following questions.

1. Do you have any views on our mission and the principles for our operation set out in the Corporate Plan?
2. Do you have any views on the Strategic Objectives and key activities to deliver these?
3. Is there anything you would like to see added to, or removed from, the strategic objectives and key activities?
4. What measures would you like to see in the Plan to assess our performance against our objectives?
5. Are there any other aspects of the Plan you would like to comment on?

We are keen to encourage as much feedback as possible. Please go to our website ²⁷ if you would like to contribute to see how to get in touch.

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27. <http://www.fiscalcommission.scot/news/corporate-plan-consultation/>

The continuing development of Scottish economic statistics

Sandy Stewart, Head of National Accounts, Scottish Government

Abstract

Scottish economic statistics produced by the Scottish Government have improved considerably over the last decade and are more comprehensive than for any other part of the UK and for many devolved administration internationally.

We now publish a wide range of statistics on the Scottish economy, ranging from GDP, labour market indicators, productivity, international trade to a full set of national accounts and detailed Input-Output tables.

Over the coming year we are taking forward an extensive programme of work to further enhance Scotland's economic statistics. This will include, developing estimates of GNI for Scotland, bringing forward the publication of GDP and estimating a set of accounts for Scotland to include the North Sea.

Introduction

Sound economic statistics are an essential source of information for policy makers, academics, researchers, economic commentators and the wider public. The majority of the economic statistics published for Scotland are produced and published by statisticians in the Office of the Chief Economic Adviser (OCEA) in the Scottish Government.

The range of the economic statistics that we publish for Scotland continues to grow to meet user needs and to enhance understanding of Scotland's economy. The statistical methods we use also continue to evolve, to reflect new data sources and improved statistical techniques.

Progress is also being made outwith the Scottish Government. The Office for National Statistics (ONS) now produces a wider range of regional information, for example income-based Gross Value Added (GVA) and Gross Disposable Household Income (GDHI) at a local authority level, and a set of Public Sector Finances data for the UK Countries and Regions.

In addition, HMRC has recently made improvements in the methodology it uses to produce its Regional Trade Statistics.

There are also important legislative changes, with the recently enacted Digital Economy Act providing the potential for the Scottish Government to utilise administrative data held by other areas of the public sector in producing our statistics. This will help to improve both the quality and timeliness of Scottish economic statistics.

This article describes how Scottish economic statistics have developed over the past decade, the current plans in place to develop the quality an range of these statistics, and a forward look to longer term developments especially relating to new opportunities available to statisticians across government.

Who we are and what statistics do we produce

There are 27 professional statisticians in OCEA producing Scottish economic statistics.

Over the past year, OCEA has published over sixty statistical releases. Our key economic statistics include: quarterly GDP statistics, a range of quarterly National Accounts statistics, monthly labour market updates, annual exports statistics, detailed annual business statistics, annual Input-Output tables, and one-off publications on topical issues such as EU workers in Scotland.

Our main outputs are summarised below. All of our statistics can be viewed at the Scottish Government's website. ¹

National Accounts	Labour Market	Business and Trade	Energy and Climate Change
<ul style="list-style-type: none">* GDP* Retail Sales* Labour Productivity* Public Sector Finances* National Accounts* Input-Output Tables* Analytical I-O Tables* Oil and Gas Statistics	<ul style="list-style-type: none">* Monthly Labour Market Briefs* Public Sector Employment* Regional Employment Patterns* Annual Survey of Hours and Earnings* Labour Market Trends* NEET Analysis	<ul style="list-style-type: none">* Export Statistics Scotland* Scottish Annual Business Statistics* Businesses in Scotland* Research & Development* Growth Sectors* Innovation Activity	<ul style="list-style-type: none">* Scotland's Carbon Foot print* Energy Statistics - Quarterly Summary* Oil and Gas Production Statistics* Energy in Scotland* Energy Targets* Energy Balance

The economic statistics published for Scotland are more comprehensive, and more timely, than for any other part of the UK, and for many other devolved governments internationally. However, we are constantly seeking to improve the coverage of Scotland's economic statistics.

Further details about resources and what we do can be found in the Scottish Economic Statistics Plan 2017-18 which is available on the web. ²

How do we produce our statistics

All statistics published by OCEA are classified as Official Statistics. This means that they are produced impartially and free from political interference, and comply with the Code of Practice for Official Statistics. Most of our statistics are also classified as National Statistics.

This means that they have been assessed by the UK Statistics Authority as complying with the Code of Practice for Official Statistics. National Statistics are regularly assessed by the UK Statistics Authority to ensure the standards are maintained.

Our statistics are produced by professional statisticians in line with international standards and subject to detailed quality assurance and peer review. All changes in data sources and methods are consulted on with users.

1. <http://www.gov.scot/Topics/Statistics/Browse> - see topics: economy; business, enterprise and energy; and labour market.

2. <http://www.gov.scot/Topics/Statistics/Browse/Economy/ScotStat/Planning>

We use a range of data sources to produce our statistics as detailed below:

- We receive detailed company-level data on businesses and local units operating in Scotland from ONS.
- We receive data directly from some major companies in Scotland.
- We undertake an annual survey of companies exporting from Scotland to both the rest of the UK and internationally.
- We utilise a range of other service providers, in both the private and public sector, to augment the Scottish data we have. For example, we use the Survey of Personal Incomes, an anonymised dataset of around 45,000 Scottish income tax payers produced by HMRC, to undertake analysis of Scottish earnings
- Where ONS undertakes company level surveys, we contribute to the cost to boost the Scottish samples. This allows us to undertake more detailed analysis than would otherwise be possible. For example, we boost the Labour Force Survey from around 6,000 to 22,000 households each year. This enables us to produce statistically robust estimates of a wide range of socio-economic indicators for various different sub-groups of the population, or for geographical areas such as for local authorities.
- Where raw data are not available, we use a range of apportionment techniques to estimate economic activity in Scotland.

Statisticians in OCEA engage regularly with users to quality assure our statistical outputs, prioritise future statistical work and to enhance our publications. This engagement includes regular user surveys relating to our main products, and meetings of the Scottish Economic Statistics Consultation Group (SESCG), which comprises of experts from academia, public sector and business communities. In addition, we have a number of SESCg subgroups of sector experts to provide specific feedback and guidance on specialist areas of work. More detail about these groups, including membership, presentations and minutes are available on the web.³

A Brief History of Scottish National Accounts

Twenty years ago there were little in the way of economic statistics available for Scotland. There were no estimates of real-terms GDP. Output indices for production and construction (which are easier to measure than other industries) were available on a quarterly basis, and a nominal terms GDP, largely based on UK employment shares, was available annually with a considerable time lag.

The Scottish Government did however have a strong working relationship with the Fraser of Allander Institute and both bodies had worked together to produce Input-Output tables for 1973, 1979 and 1989 (one of my first projects with the Scottish Office, as it was known then). These were difficult and time-consuming to produce, and done infrequently – meeting the needs of academics and economic modellers at the time, but certainly not suitable for constructing a framework to underpin a system of national accounts for Scotland as required in a post-devolution world.

Addressing the needs of the Scottish Parliament, quarterly real-terms GDP estimates for onshore Scotland, were published for the first time in May 2002. OCEA has produced these every quarter since then.

3. <http://www.gov.scot/Topics/Statistics/Browse/Economy/ScotStat/comms>

In response to user feedback, the Scottish National Accounts Project (SNAP) was launched in October 2008 with a remit to build a complete set of national accounts for Scotland. This project set out to develop:

- annual, consistent and updateable Input-Output tables for Scotland;
- quarterly nominal GDP estimates using a production, income and expenditure approaches, consistent with the I-O tables;
- quarterly revenue estimates, consistent with GERS and the basic price adjustment; and
- quarterly trade flow estimates, as balancing items

The first set of experimental estimates for quarterly income-based GDP was published in August 2009. The Quarterly National Accounts for Scotland (QNAS) publication has been produced quarterly since October 2010 and is now classified as a National Statistic. A quarterly Retail Sales Index for Scotland was also introduced 2010. The range of tables in the Quarterly National Account publication has grown considerably since then – a new experimental series for business investment, for example, was introduced last year.

Expanding our Economic Statistics

We strive to continuously improve the quality, breadth and accessibility of our statistical outputs. Some of our key achievements during 2016/17 include:

- New publication providing quarterly productivity statistics for Scotland
- Bringing forward the publication of our Government Expenditure and Revenue Scotland (GERS) publication by seven months to August from the following March.
- New topical publication providing detailed analysis of labour market indicators for migrant workers in Scotland.
- Accelerating the publication of Scottish GDP to increase its timeliness.
- New annual publication of oil and gas production, expenditure and income

Further details are available in Annex D in the Scottish Economic Statistics Plan 2017-18.

In addition to continuing to improve our existing statistics, OCEA is developing a range of new statistical products over the coming year. These will initially be presented as “experimental statistics” and will be published alongside other related official statistics. The “experimental” nature of these new statistics is to allow time to quality assure the figures and to discuss their usability. In due course, it is expected that the developed products will either form part of existing publications or be standalone releases in their own right.

The projects being taken forward in 2017-18 include the development of:

- Whole of Scotland Economic Accounts
- Quarterly Gross National Income (GNI)
- Balance of Payments
- Earlier Publication of GDP
- Sub-Scotland economic statistics

These projects were discussed and agreed in consultation with SESCOG. The slides from the presentation at SESCOG on 25 April 2017 are publically available.⁴

4. <http://www.gov.scot/Topics/Statistics/Browse/Economy/ScotStat/Meetings>

Whole of Scotland Economic Accounts

Many of the economic statistics currently produced for Scotland, for example the headline GDP index, relate to Scotland's on-shore economy. Others, such as the Quarterly National Accounts and GERS capture some of the economic activity undertaken by the oil and gas industry in the North Sea.

This Special Project will initially establish a set of Input-Output tables providing details of flows of the value of goods and services to and from the offshore industry and the onshore Scottish economy, Rest of the UK and Rest of the World. The satellite account can then be combined with the onshore Scottish Input-Output tables to form a "Whole of Scotland" set of accounts. This will allow for much more detailed analysis of the offshore sector, and its interaction with the wider Scottish economy, than has previously been possible.

It is planned that this work will be shared with users as experimental statistics later in 2017/18.

Quarterly Gross National Income (GNI)

Many users of Scottish economic statistics have suggested that estimates of Scottish GDP should be complemented by estimates of GNI. GNI is an adjustment to the conventional GDP measure to take account of financial flows into and out of the country due to ownership. For example, where profits made by Scottish companies outside of Scotland are repatriated, this would be included in GNI but is not included in GDP. Likewise, when non-Scottish companies repatriate profits made in Scotland this is included in Scottish GDP, but would be deducted from estimates of Scottish GNI.

Annual figures for Scottish GNI were published in 2013 relating to the calendar year 2010 (further details about the estimates and underpinning methods may be found here - <http://www.gov.scot/Topics/Statistics/Browse/Economy/SNAP/expstats>). This work was published as experimental estimates and has not been updated since.

Work is being undertaken to estimate Scottish GNI on a regular basis. There are a number of challenges in producing such estimates for Scotland. However, it is hoped that these figures will be published on an experimental basis later in the year.

Balance of Payments

The above projects will help to provide estimates of Scotland's Balance of Trade for both the onshore and offshore sectors, and Scotland's Primary Income Account (the difference between GNI and GDP). These are the two largest components of a country's Balance of Payments. The missing element is the secondary income account which is primarily flows between Scottish and non-Scottish households and inter-Governmental transfers.

A longer term project will be undertaken to estimate these missing elements of Scotland's balance of payments. It is likely that this work will involve a lot of user consultation as there will be many definitional and classification issues to address in the process.

Earlier Publication of GDP

Many users have requested earlier estimates of our headline GDP statistics. Prior to 2016/17, GDP was published around 110 days after the end of the reference period. Changes to the GDP production process mean that it is now published around 97 days after the end of the reference period.

This project is looking at how the publication time can be further reduced. It will explore whether any of the key components can be completed earlier, look at the accuracy of earlier cuts of the data (minimising the

risk of future revisions), and consider how now-casting techniques can be used in the absence of complete data.

Work will continue throughout 2017/18 with a view to publishing earlier in 2018/19.

Sub-Scotland economic statistics

Many users of Scottish economic statistics have requested more figures for sub-Scottish geographies. There is increasing interest in local area statistics, especially relating to identifying and reducing poverty as part of the Inclusive Growth agenda. Community Planning Partners (across local government, Police Scotland, the Fire and Rescue Service, Health Boards etc.) have identified lack of local economic data as a major issue when analysing their areas of poverty, establishing local trends and measuring progress over time.

In the first instance, we propose to set up a SESCOG sub-group to discuss local priorities for local data. We plan to have the first meeting in October/November 2017.

Longer-term proposals for change

In addition to the ambitious programme of work for 2017/18, OCEA is also considering the longer-term statistical requirements, in particular how to meet user requirements as Scotland gains more fiscal responsibility and to reflect the growing digital economy. The Digital Economy Act will provide an opportunity to access more data than previously available which will help to improve both the quality and timeliness of Scottish economic statistics.

Two areas of particular focus are:

- Collecting more Scottish-specific data
- Improving regional prices data and real-terms components of GDP

Collecting more Scottish-specific data

Historically, economic statistics have been derived from the surveys ONS undertakes of businesses in Scotland and the rest of the UK. The ONS business surveys are collected under the Statistics of Trade Act (1947) requiring large companies to submit data by law in order to compile the UK National Accounts. The Scottish Government does not have any legal mechanisms to enforce data collection.

However, there is also a substantial amount of data collected by other parts of the UK Government that has the potential to improve the quality of Scottish economic statistics. For example, tax returns for VAT, corporation tax and income tax can provide timely and detailed information to enhance Scotland's economic statistics.

Historically, there have been a number of legal impediments to the sharing of data across the public sector. The new Digital Economy Act provides a vehicle whereby data can be more easily shared, provided a genuine statistical need is established and appropriate data security arrangements are in place. We intend to make use of this legislation proactively to enhance our statistics and analysis. OCEA is currently engaging with HMRC to identify opportunities to access some of the data it holds.

This will take time as data-sharing agreements need to be put in place and it will take time to assess the new data sources and consider how they can be best used to supplement the existing data that OCEA holds. However, it represents an important development which has the potential to significantly enhance Scotland's economic statistics.

Improving regional prices data and real-terms components of GDP

Currently real-terms (i.e. adjusting for price change) GDP are only compiled using the production (or output) approach – i.e. breaking down GDP growth by industrial sectors.

The income and expenditure based estimates of GDP components – which break down GDP income components (such as earnings and profits) and expenditure components (such as household and government consumption, investment, trade etc.), are only currently available for nominal (cash values) estimates.

Ideally, the expenditure estimates should be deflated and harmonised with the output-based estimates. This would provide a richer set of national accounts estimates and improve coherence between different parts of the accounts.

OCEA is currently considering whether suitable deflators are available for GDP expenditure components. This will help improve the coherence between the various components of Scottish GDP, and will provide better quality data to underpin the Scottish Fiscal Commission's forecasts and to ensure they are consistent with the assumptions used in compiling Scotland's national accounts.

Lack of sub-UK prices is also an area where further improvement is required. The Scottish Government's GDP estimates make the assumption that national (UK) prices (levels and changes) reasonably reflect Scottish prices. Discussions are currently underway with ONS to explore how regional prices can be better estimated from a wider range of data sources.

Conclusion

High quality economic statistics for Scotland are essential to government, policy makers, academics, the media and the public, in order to understand what drives change in the economy and to evaluate the impact of policy intervention. For a country to make well-informed decisions impacting the economy, a reliable set of national accounts statistics are vital. Significant progress has been made in recent years to improve these statistics for Scotland, and an ambitious programme of work is underway to develop these further. The Digital Economy Act will provide an opportunity to access more data than previously available which will help to improve both the quality and timeliness of Scottish economic statistics.

If readers wish to be involved in these developments please get in touch with the author.

Author details

Sandy Stewart has worked in Scottish economic statistics since 1988. He was responsible for compiling the 1989 Input-Output tables, the development of the quarterly GDP system and conceiving the Scottish National Accounts Project. He has also worked for the UK Statistics Authority as advisor on UK economic statistics and head of its monitoring programme.

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Performance of Scotland's small and medium sized businesses: insights from the Small Business Survey 2016

Neil Hamilton and Kenny Richmond, Scottish Enterprise ¹

Abstract

SME employers are a key part of Scotland's economy, accounting for approximately 30% of companies and 40% of employment. This paper provides some insights into the performance of Scottish SMEs, drawing on data from the 2016 Small Business Survey. The data highlights that the proportion of Scottish SMEs that export overseas is lower than the UK average, but the gap is closing.

A considerable proportion of non-exporting Scottish SMEs have goods and services suitable for the overseas market, suggesting there is an opportunity to increase exporting rates. Innovation rates amongst Scottish SMEs has declined, similar to UK trends and a declining proportion of SMEs in Scotland are seeking external finance to fund future growth. Finally, Scottish SMEs have lower growth ambition than other parts of the UK, with lower rates of planned training and innovation.

Introduction

There are just under 105,000 small and medium sized enterprises (employing between 1 and 249 employees) in Scotland ². They are an important component of Scotland's economy, accounting for just less than 30% of all enterprises and employing over 885,000 people (42% of all employment).

This paper summarises the evidence on the performance of Scotland's SME employers (i.e. excluding the self employed) from the 2016 UK Government Small Business Survey (SBS) ³. The analysis considers innovation, internationalisation, investment and factors supporting inclusive growth. Where possible, comparisons with the findings from 2015 survey and with the UK are included.

Innovation

Innovation is a key driver of productivity and business growth. Businesses that are innovative are more likely to grow and are also more likely to be exporters. Scottish SME innovation performance is broadly similar to the UK as a whole but fell sharply in the last year, a trend seen elsewhere in the UK.

In 2016, 38% of SMEs in Scotland innovated in some manner in the last three years (whether in goods, services or processes). This proportion was similar to the UK but 9 percentage points less than Scotland's 2015 performance.

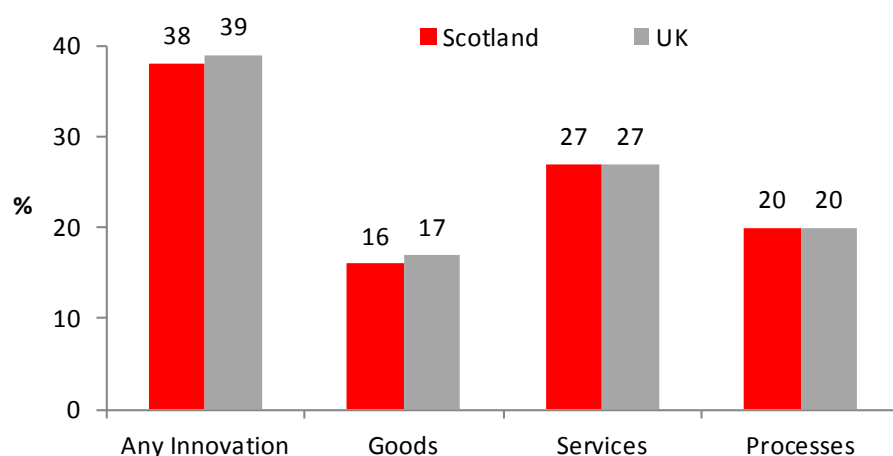
Similarly, innovation rates declined in England and Wales (by 11 and 9 percentage points respectively) while Northern Ireland's performance remained unchanged at 40%. It is not clear from the data why innovation rates have fallen in most parts of the UK.

1. Scottish Enterprise is Scotland's main economic development agency: <https://www.scottish-enterprise.com/>

2. Scottish Government, 2016: <http://www.gov.scot/Topics/Statistics/Browse/Business/Corporate>

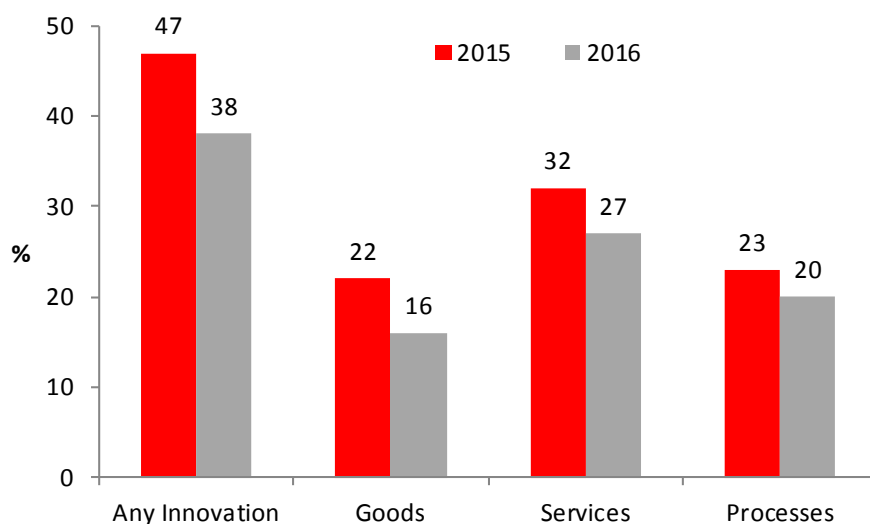
3. UK Government Small Business Survey (2016): <https://www.gov.uk/government/collections/small-business-survey-reports>, Scottish Government Small Business Survey Scotland (2016): <http://www.gov.scot/Topics/Economy/ASBS/SBS2016>

Figure 1: Percentage of SMEs involved in any innovation in the last 3 years (goods, services or processes), Scotland vs. UK



SOURCE: Small Business Survey

Figure 2: Percentage of Scottish SMEs involved in any innovation in the last 3 years (goods, services or processes), Scotland, 2015



SOURCE: Small Business Survey 2016

Across the UK, larger SMEs were more likely to have innovated in the last three years, with 55% of SMEs with 50 to 249 employees innovating compared to 37% of those with 1 to 9 employees and 47% of those with 10 to 49 employees. Data for Scotland is not currently available, but the patterns are likely to be similar.

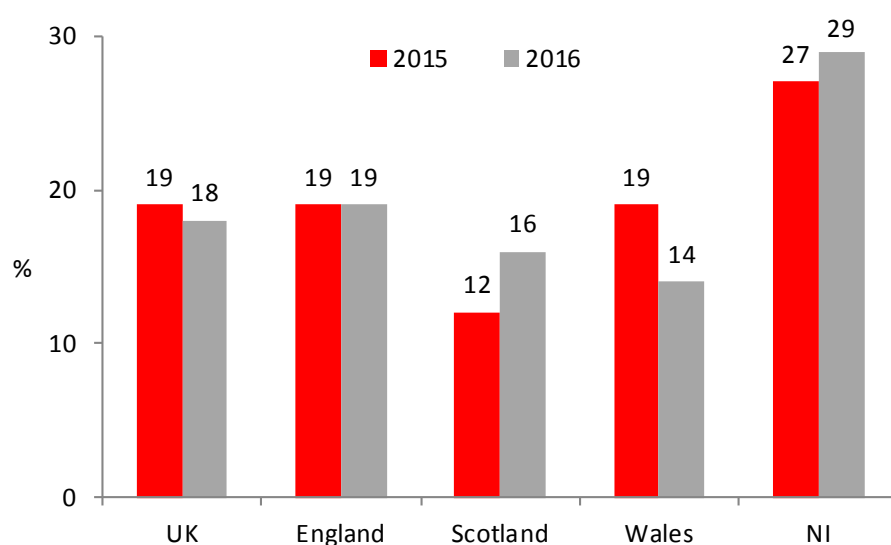
By sector, Scottish SMEs were most likely to have innovated in the information/communication (65% of SMEs), manufacturing (56%), and business services (43%) sectors.

SMEs were less likely to have innovated in construction (23%), administrative services (23%) and the primary sector (19%). These are similar to UK figures.

Internationalisation

Businesses that export tend to have higher productivity than those that don't sell overseas, and exporting can increase productivity levels further. In 2016, 16% of Scottish SMEs (compared to 18% in the UK) were overseas exporters of goods or services, an increase from 12% in 2015. Scotland experienced the highest rise in the percentage of SMEs exporting of any UK country in 2016, driven primarily by an increase in the percentage exporting services. The significantly higher proportion of SMEs in Northern Ireland that are exporters reflects the ease of trade with the Republic of Ireland.

Figure 3: Percentage of SMEs exporting goods or services over last 12 months, UK, 2015 vs. 2016



SOURCE: Small Business Survey 2016

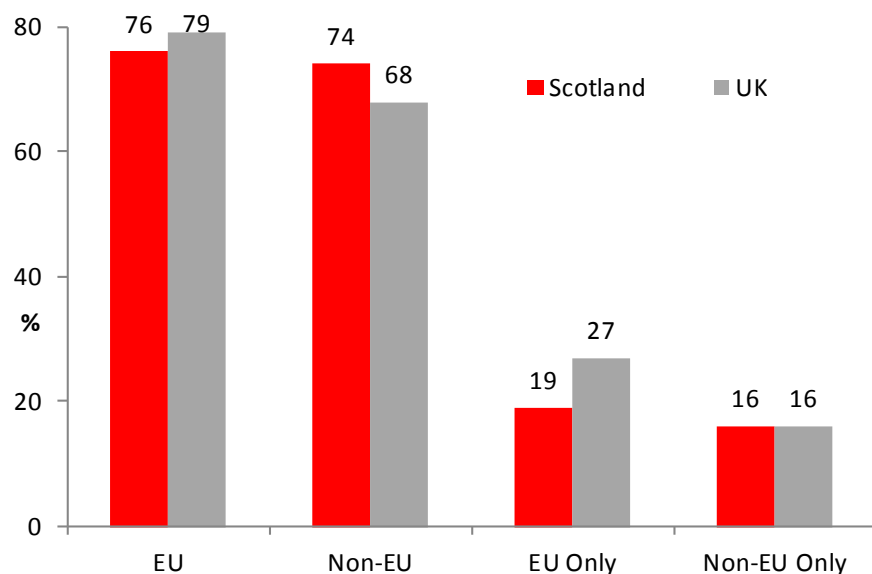
In 2016, 8% of Scottish SMEs (compared to 10% in the UK) were exporters of goods, similar to the 2015 figure, while 10% (compared to 11% in the UK) were exporters of services, up from 6% in 2015.

Just 4% of Scottish non-exporters plan to start selling overseas in the future (the same proportion as the UK). However, 16% of non-exporters with no future plans to sell overseas reported having goods or services that are suitable for exporting (same as the UK) – this suggests there are approximately 13,500 potential SME exporters in Scotland.

Exports are increasingly important to Scottish SMEs as a source of turnover. The share of both goods and service exporting SMEs for whom overseas sales accounted for more than 5% of turnover increased in 2016; from 48% in 2015 to 54% for goods exporters, and from 61% to 66% for service exporters.

SME exporters in Scotland were more likely than the UK average to export to non-EU countries (74% compared to 68%) and less likely to export to the EU only (19% compared to 27%). The proportion of Scottish SME exporters planning to increase exports over the next three years was higher than the UK average (62% vs 57%).

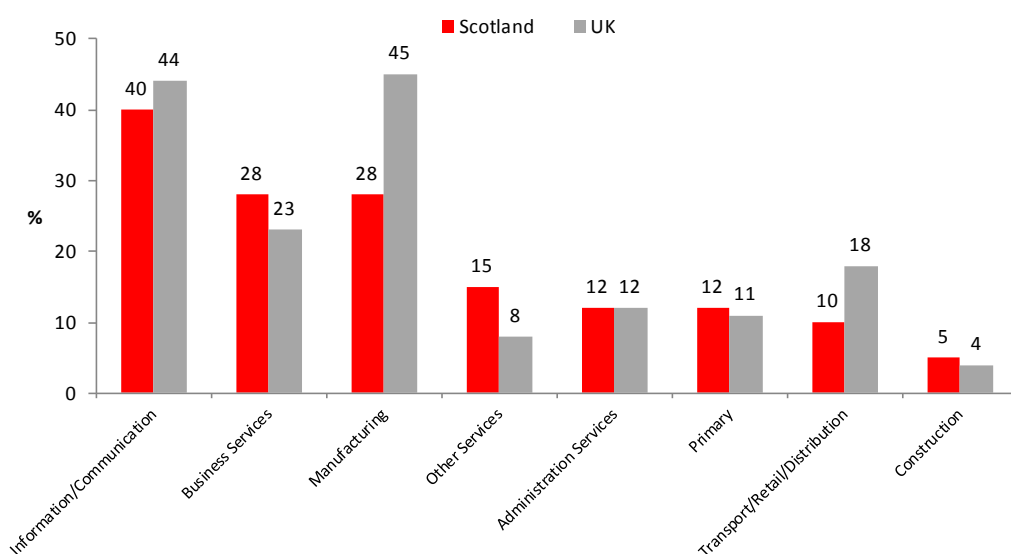
Figure 4: Percentage of Scottish SMEs exporting to select markets over last 12 months, Scotland vs. UK, 2016



SOURCE: Small Business Survey 2016

The sectors most likely to be export-active mirror those that are innovation-active – information/communication (40% of SMEs), business services (28%), and manufacturing (28%). It is notable that the proportion of Scottish manufacturing SMEs that export is significantly lower than the UK average.

Figure 5: Percentage of Scottish SMEs exporting over last 12 months by sector, Scotland vs. UK, 2016

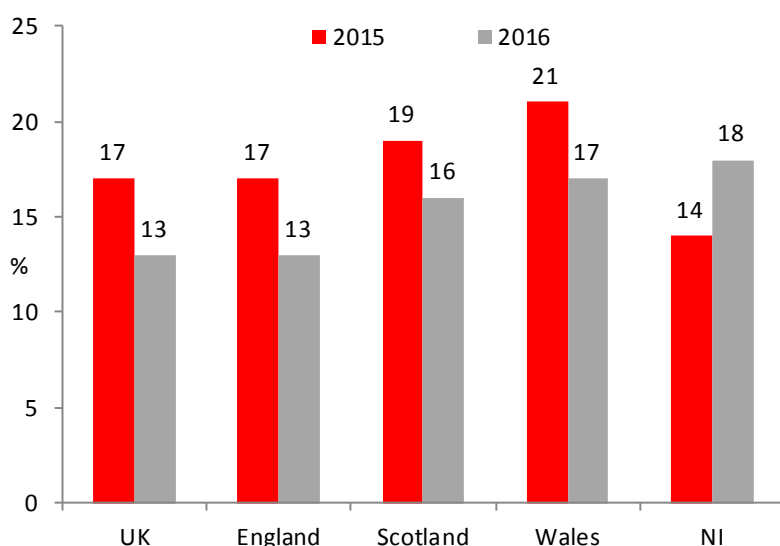


SOURCE: Small Business Survey 2016

Growth finance and investment

A slightly higher than UK average proportion of Scottish SMEs tried to obtain external finance in 2016. Scottish SMEs tend to seek finance for working capital/cash flow rather than for investment purposes. The demand by SMEs for external finance has generally been steadily declining across Scotland and the UK in recent years.

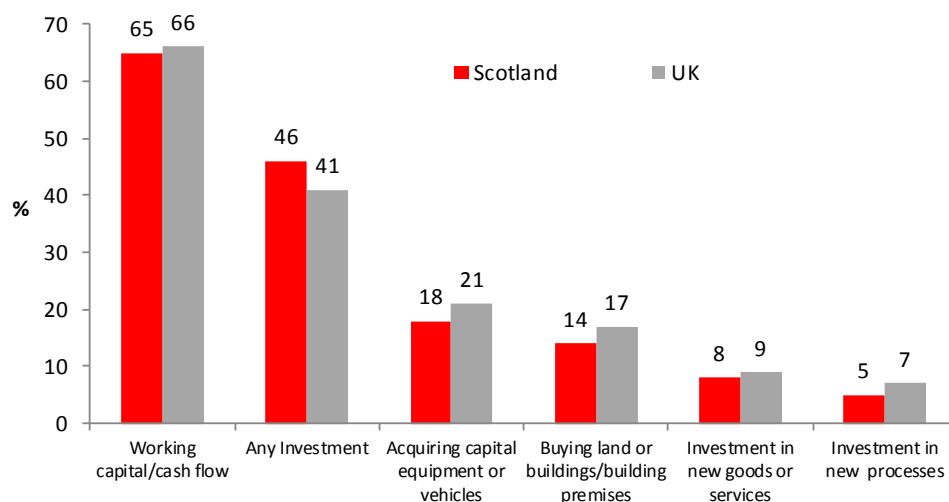
Figure 6: Percentage of SMEs seeking external finance in the last 12 months, UK, 2015 vs. 2016



SOURCE: Small Business Survey 2016

Of Scottish SMEs that sought external finance in 2016, 65% did so for working capital or for cash flow reasons (similar to the UK). 46% sought external finance for investment purposes (slightly higher than the UK rate), with the percentages of Scottish SMEs seeking finance for traditional investment purposes (construction, equipment, innovation) actually lower than in the UK overall. The total percentage of Scottish SMEs seeking external finance for investment purposes was just 8% of all SMEs overall. Comparisons cannot be made with 2015 because of a change in the way this question was asked.

Figure 7: Main reasons for seeking external finance in the last 12 months (percentage of Scottish SMEs that sought finance), Scotland vs. UK, 2016



SOURCE: Small Business Survey 2016

The rejection rate for obtaining external finance for those with a known decision was broadly similar in Scotland and the UK as a whole (12% versus 13%). Scottish SMEs on average sought lower levels of external finance than the UK average (with 21% seeking less than £10,000 compared to 14% in the UK). Only 5% of investments did not go ahead in instances where not all of the finance sought was obtained.

A quarter of Scottish SMEs said they would be likely to approach external finance providers in the next three years. Although this was slightly higher than the UK as a whole (23%), it was lower than the rate in 2015 (29%).

Overall this suggests that, increasingly, Scottish SMEs are not looking for external finance to fund future growth, even though they are turning to external finance for working capital. This is a trend that is not unique to Scotland.

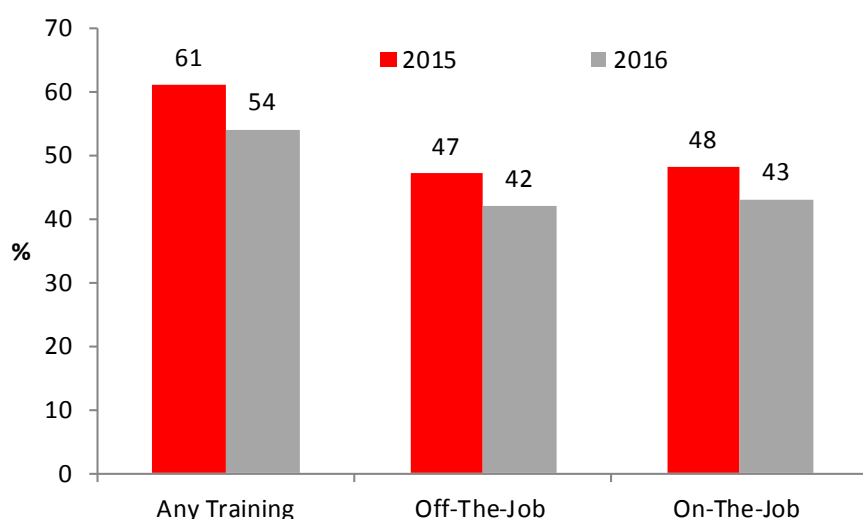
Inclusive growth

Only 3% of SMEs were MEG-led ⁴ (compared to 5% in the UK, similar to 2015) and only 4% of SMEs had directors and partners from ethnic minority groups (compared to 7% in the UK). This is slightly lower than the proportion of adults from ethnic minority groups in Scotland (5%) ⁵.

Only 19% of SMEs were women-led ⁶ (compared to 20% in the UK), although, more positively, 75% of Scottish SMEs had female directors and partners (compared to 71% in the UK).

Workforce development and training is an important element in promoting productivity, fair work and inclusive growth. However, Scottish SMEs (unlike their UK counterparts) undertake less training. In 2016, 54% of Scottish SMEs arranged or funded training or development for staff in the previous 12 months (down from 61% in 2015), 42% offered off-the-job training (down from 47% in 2015) and 43% on-the-job training (down from 48% in 2015). These declines brought training levels in Scotland back into line with UK average levels, which remained constant between 2015 and 2016.

Figure 8: Percentage of SMEs arranging or funding training or development for staff in the last 12 months, Scotland, 2015 vs. 2016



SOURCE: Small Business Survey 2016

4. defined as having a person from an ethnic minority in sole control of the business or having a management team with at least half of its members from an ethnic minority

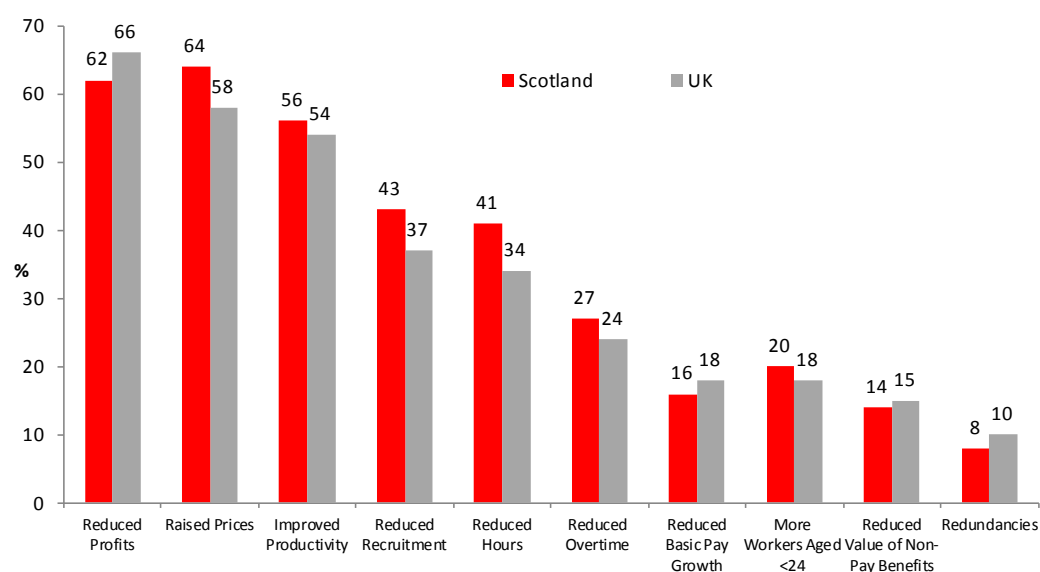
5. Annual Population Survey, 2017

6. defined as controlled by a single woman or having a management team of which a majority were women

In 2016, 14% of Scottish SMEs (down from 16% in 2015) offered formal apprenticeships in the last 3 years (compared to 17% in the UK) and only 8% of those that did not have apprenticeships expected to have any in the next 12 months (compared to 10% in the UK).

The National Living Wage⁷ has had only limited effect on Scottish SMEs to date. In 2016, 17% of SMEs (compared 21% in the UK) have seen an effect on their organisation's wage bill. Of those affected, just over half reported increasing productivity as part of managing the additional cost (similar to the UK). If the National Living Wage increases to £9 per hour as planned in April 2020, an additional 27% of Scottish SMEs stated this will raise wage bills (compared to 23% in the UK).

Figure 9: Ways in which additional wage costs have been managed so far (by SMEs already affected by National Living Wage), Scotland vs. UK, 2016



SOURCE: Small Business Survey 2016

Other survey findings

Although not explicitly intended to gauge performance, this year's survey confirms Scottish SMEs experienced a more challenging economic environment than their UK counterparts. In 2016, turnover was more likely to have fallen for a higher proportion of Scotland's SMEs (24%) than in England (20%), Wales (18%), and Northern Ireland (16%).

Considering future optimism, Scotland, with Wales, had the lowest proportion of SMEs who thought turnover would increase over the next 12 months (37% compared to 40% in the UK). Similarly, SMEs in Scotland were more likely than the UK average to think they would employ fewer people in 12 months' time (14% compared to 10% in the UK).

Ambition

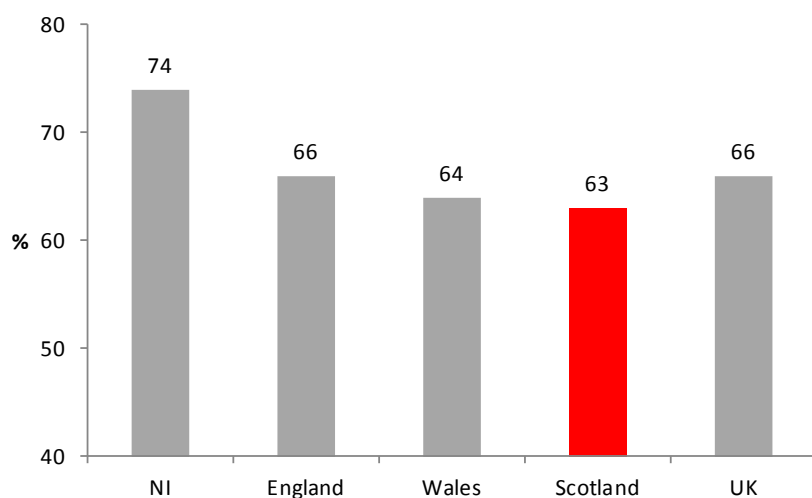
Only 63% of Scottish SMEs aim to grow the sales of their businesses over the next three years (the lowest level of all four UK countries). Also, a lower proportion of Scottish SMEs than the UK average plan to engage in activities likely to boost growth:

- staff training: 61% plan to increase the skills of their workforce (compared to 63% in the UK)
- innovation: 33% plan to develop and launch new products or services (compared to 37% in the UK)

7. introduced in April 2016 at £7.20 per hour

More positively, 18% plan to invest in new overseas markets (compared to 17% in the UK).

Figure 10: Percentage of SMEs aiming to grow sales over next 3 years, Scotland vs. UK, 2016



SOURCE: Small Business Survey 2016

Use of Business Support

SMEs in Scotland were more likely to have sought outside information or advice (32%) than those in England (26%), Wales (29%) and Northern Ireland (22%). However, a lower proportion of SMEs in Scotland sought advice in 2016 than in 2015 (37%), and SMEs throughout the UK are increasingly less likely to seek external support and advice.

Conclusions

The Small Business Survey provides a useful snapshot of the performance of Scottish SMEs, and how this compares over time and with other parts of the UK. As SMEs account for over 40% of Scotland's employment, understanding their current and future performance is key for the economy overall.

The latest data highlights a number of findings for the key drivers of productivity and business growth:

- Scottish SMEs are less likely to export overseas than the UK average, but encouragingly the gap with UK performance is narrowing.
- There is a significant proportion of non-exporting SMEs that have the potential to be exporters in the future (those stating they have products and service suitable for overseas markets).
- The proportion of Scottish SMEs innovating appears to be declining in Scotland, although the reasons for this are not clear from the survey. This could be an area for future research.
- SMEs tend to seek external finance for working capital rather than for potentially productivity enhancing investment
- Similarly, the proportion of Scottish SMEs investing in staff training and development has declined, and again the reasons are not clear.

The survey also suggests that Scottish SMEs appear to be slightly less ambitious in terms of growth, and in terms of future innovation and staff development activity. This may affect future productivity performance.

The reasons for lower growth ambitions could also be an area for further research.

Overall, the analysis suggests that there a range of areas where SME performance can be improved that would positively impact on the Scottish economy as a whole. These include:

- encouraging more SMEs that have the potential to sell overseas to develop and take forward exporting plans, particularly in the manufacturing sector
- reversing the apparent decline in the proportion of SMEs innovating
- reversing the apparent decline in the proportion of SMEs investing in training and staff development
- encouraging more SMEs to use external funding to invest to enhance productivity.

A range of support and services for SMEs is available in each of these areas, through for example Scotland's Enterprise Agencies, the Business Gateway, employer organisations and other providers. The Scottish Government's review of the Enterprise Agencies has also focused on these issues, with a programme of work underway to further develop and improve the support available to businesses ⁸.

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8. Scottish Government Enterprise & Skills Review: <https://beta.gov.scot/policies/economic-growth/enterprise-and-skills-review/>

Job related training in Scotland – what do the data tell us?

Stuart G McIntyre

Introduction and background

In the recent edition of Scottish Labour Market Trends, the Fraser of Allander Institute's joint publication with the Scottish Centre for Employment Research, we noted that there had been a downward trend in the share of employees who were receiving job related training over the past decade or so. In this article we review the data in more detail to better understand what the trends have been in job related training in Scotland and elsewhere in the UK.

For a range of reasons, it is important to track the investment that firms are making in their employees. Not least that this has important implications for the long-term productivity of the economy.

In turn improvements in productivity should translate into improvements in wages and prosperity for workers. Furthermore, given anticipated trends in automation - for instance - it is important to track the degree to which the workforce is being developed and encouraged to enhance their skills.

Aggregate measures of training don't shed any light on the nature of the training. Employees receiving health and safety training, a core element for many workers but not one which necessarily develops their existing skillset, represents a different type of training compared to those workers being trained for a job that they will do in the future or to be more productive in their current job (for instance through learning a new software programme or how to operate a new piece of machinery).

In this article we begin by reviewing the aggregate data on job-related training that workers receive. These data are from the Annual Population Survey, and look at training received over the past 4 weeks or the past 13 weeks.

We begin with comparisons across different parts of the UK, to understand whether there are diverse regional trends in employee training. However, perhaps most interesting is what is happening to training across work patterns (part time/full time), gender, education and sectors of the Scottish economy. This is the focus of the second part of this paper.

We end this paper by considering data from the Understanding Society survey on the intensity of training, and also the nature of that training.

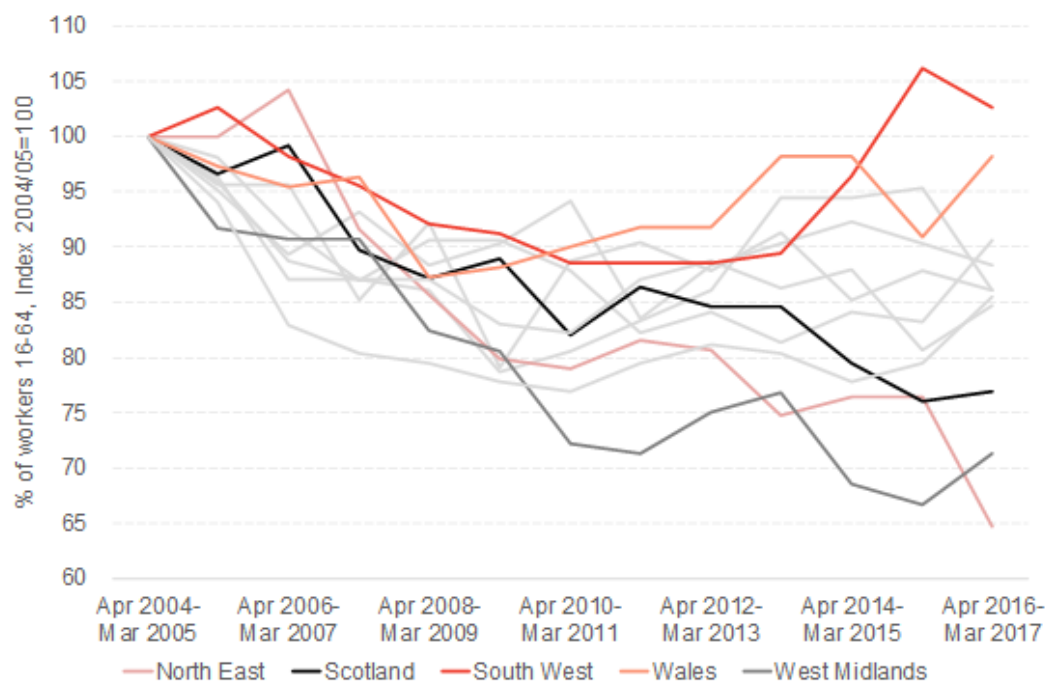
At this stage we only consider the data from the latest 'wave' of this survey, but in future work will link these waves together to analyse trends in the intensity and nature of training in more detail.

So, what do the headline data tell us?

Figure 1 shows the trend in job-related training across the regions and nations of the UK.

We've picked out those places where the trend appears to be more stable over this period (South West England and Wales) as well as places where the trend is more sharply downward (North East England and the West Midlands).

Figure 1: % of workers who received job related training in last 4 weeks (16-64).

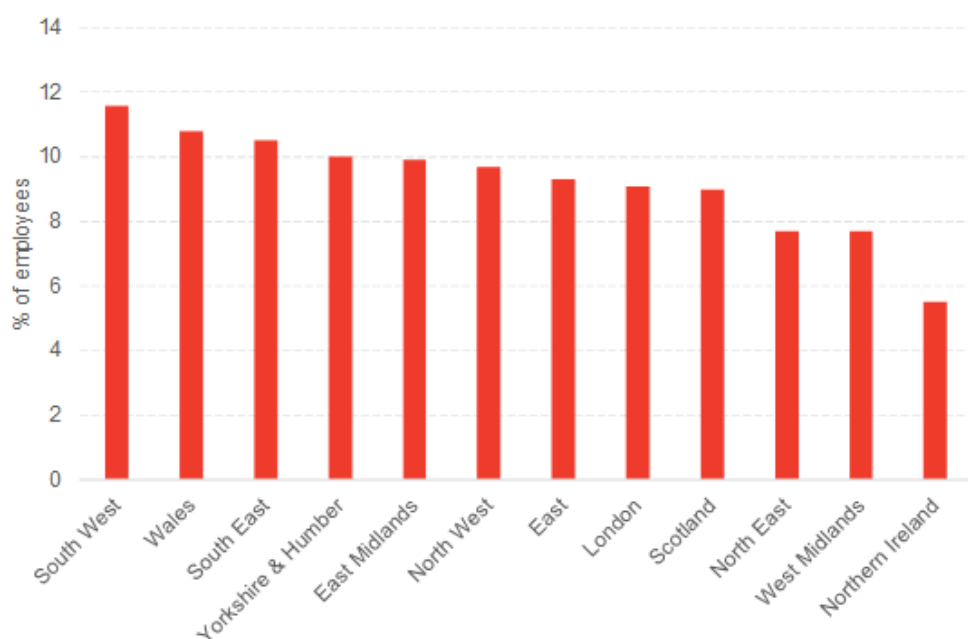


SOURCE: Annual Population Survey, April 2016-March 2017

Scotland is close to the bottom of the ranking on this basis with a clear downward trend in job-related training, and indeed as Figure 2 shows, only Northern Ireland, North East England and the West Midlands have lower shares of employees receiving job-related training than Scotland.

This is in contrast to the earliest data (for 2004-05) when only the South East and the North East of England had higher shares of employees being trained.

Figure 2: % of workers who received job related training in last 4 weeks (16-64).

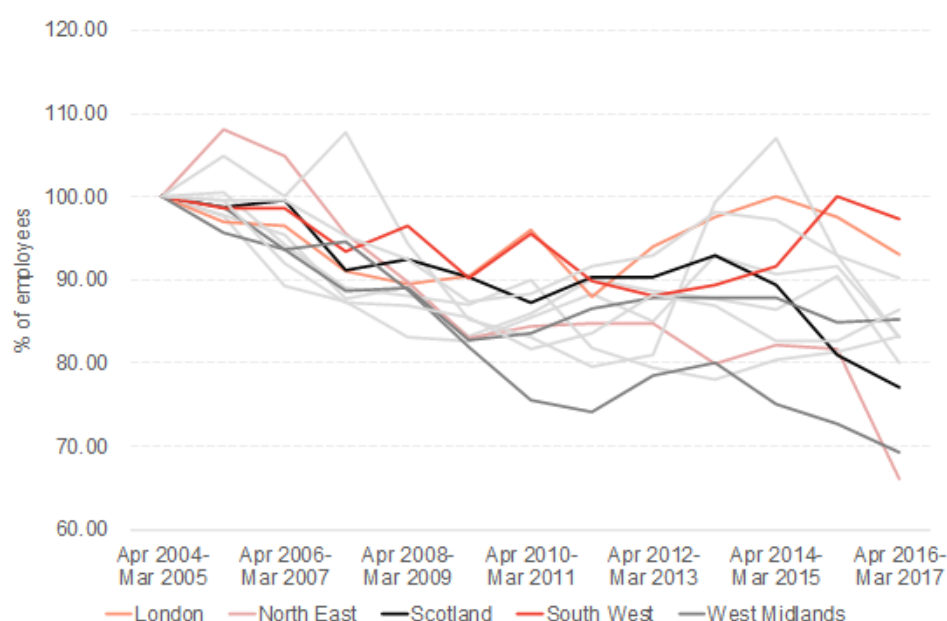


SOURCE: Annual Population Survey, April 2016-March 2017

Four weeks may seem too short a period to evaluate variations in job related training provided to employees, so in Figure 3 we look at trends in job related training over the previous 13 weeks. Again, a fairly consistent picture emerges of a smaller percentage of employees in all parts of the UK receiving job related training that they did in the 2000's.

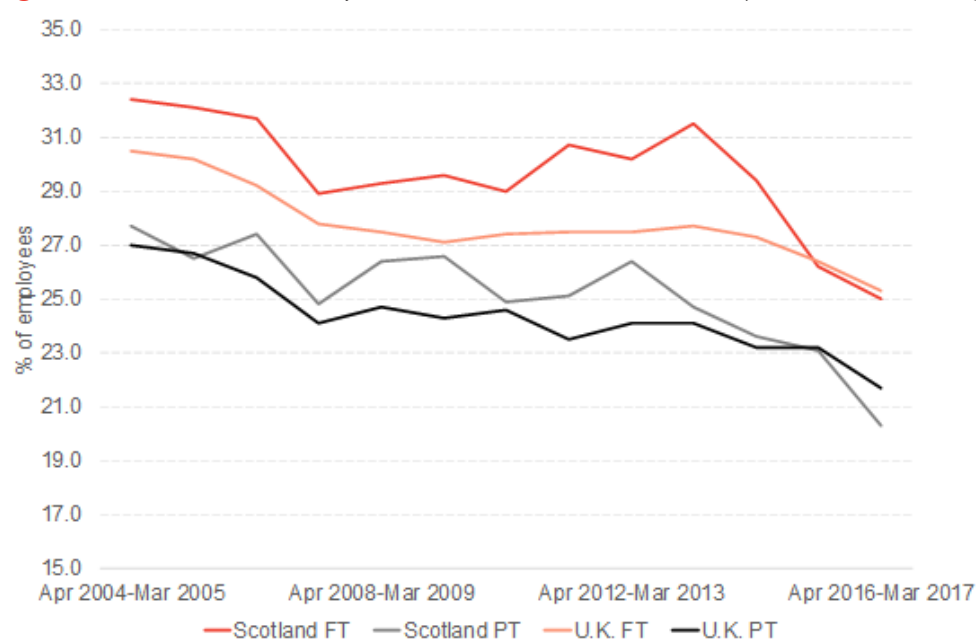
On this measure, again, Scotland appears to have seen a greater reduction in on-the-job training than some other parts of the UK. The West Midlands and the North East have again seen the greatest drop on this measure, while the South West has seen a much smaller fall in job-related training, alongside London, on this measure.

Figure 3: % of workers who received job related training in last 13 weeks (16-64)



SOURCE: Annual Population Survey, April 2016-March 2017

Figure 4: % of full-time and part-time workers who received job related training in last 13 weeks (16-64)



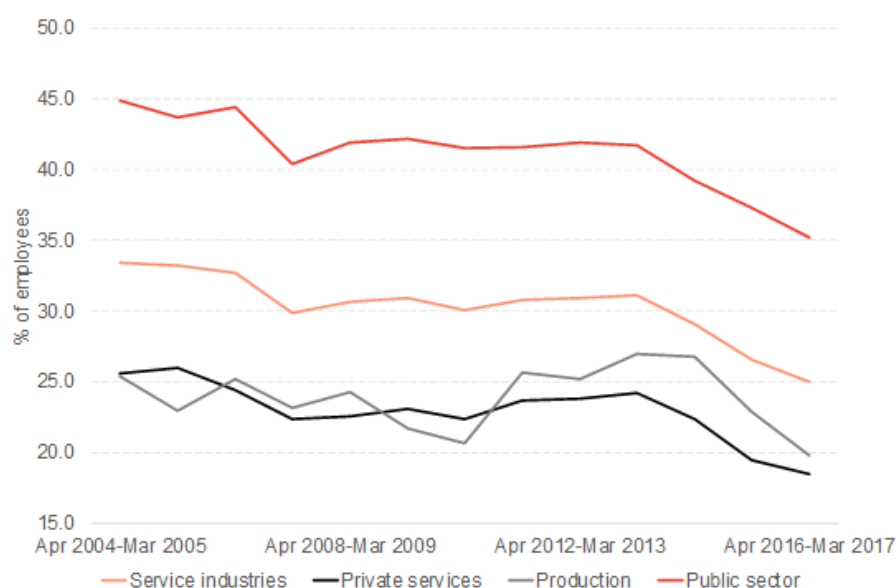
SOURCE: Annual Population Survey, April 2016-March 2017

Looking in more detail at these data we can see how the share of employees receiving training differs across fulltime and part-time workers in Figure 4.

We can see that part-time workers are less likely to have received training in the previous 13 weeks than fulltime workers, but also that having had a training rate of full and part-time workers that was higher than the UK as a whole for most of this period, Scotland has now seen training rates dip below UK rates. We can also look at how training rates differ across industry and the public sector.

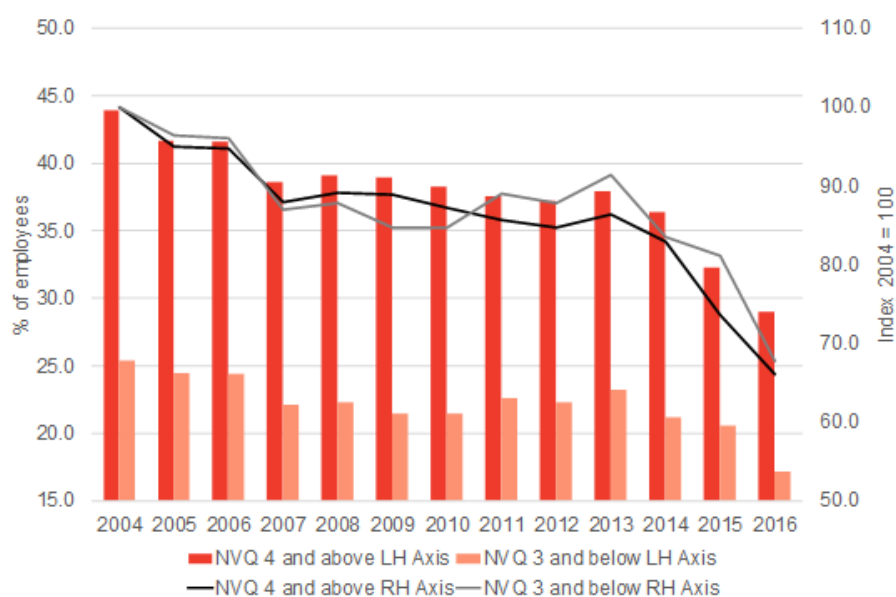
Figure 5 shows that the public sector has a far higher training rate than any other part of the economy, albeit it too has been declining since 2004. Similarly, there has been a decline in the share of employees being trained across education levels. Figure 6 shows that employees with NVQ 4 and above qualifications are more likely to receive training than those with NVQ 3 and below qualifications. However both groups have seen a similar decline in their training rates.

Figure 5: % of workers who received job related training in last 13 weeks (16-64) by sector



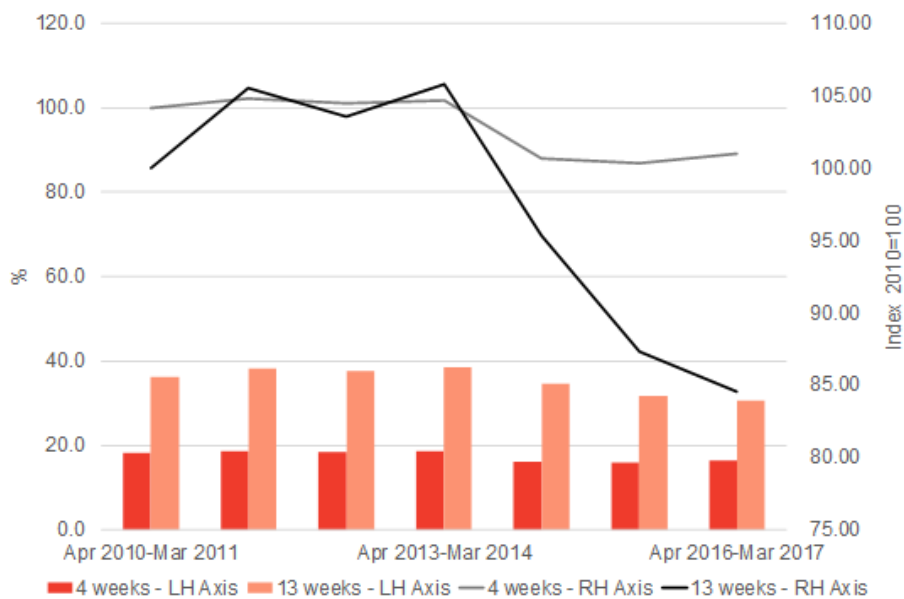
SOURCE: Annual Population Survey, April 2016-March 2017

Figure 6: % of workers who received job related training in last 13 weeks (16-64) by education level



SOURCE: Annual Population Survey, April 2016-March 2017

Figure 7: % of workers in managerial and professional occupations who received job related training in last 4 or 13 weeks (16-64)



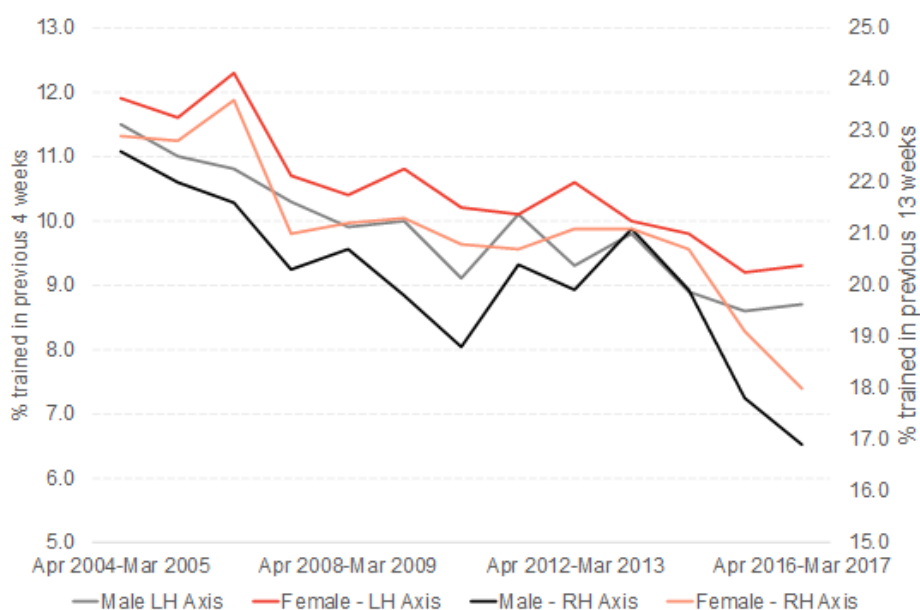
SOURCE: Annual Population Survey, April 2016-March 2017

This decline is also reflected among those in managerial and professional occupations as Figure 7 shows.

Similarly, we can see from Chart 8 that there has been a similar decline in employee training among men and women, although women are more likely to have received training than men.

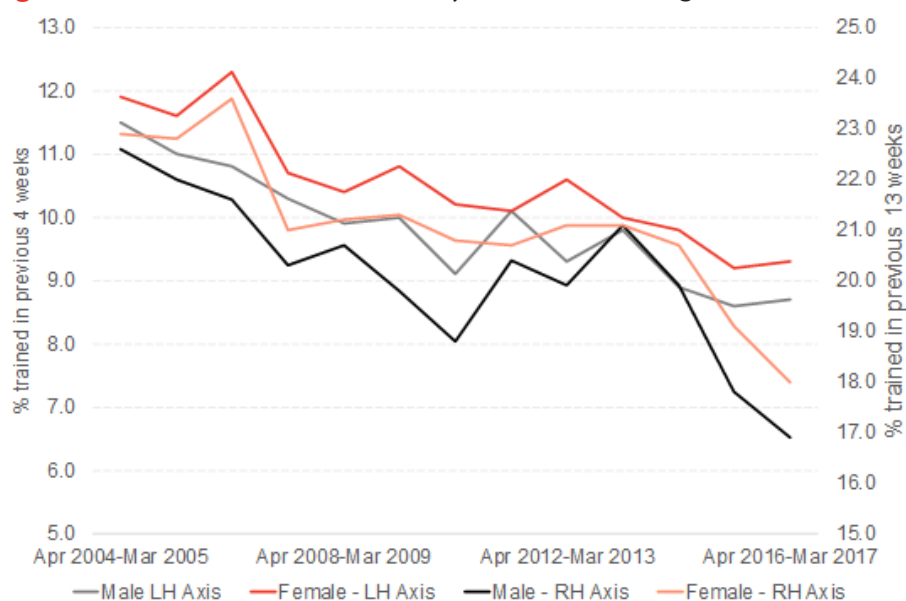
Across sectors, work pattern, gender and education levels there has been a steady decline in the share of employees receiving job related training in Scotland. This trend is not unique to Scotland, albeit as Figure 1 and Figure 3 show that Scotland has seen a sharper decline in its training rate for workers than a number of other parts of the UK.

Figure 8: % of workers who received job related training in last 4 or 13 weeks (16-64) by gender



SOURCE: Annual Population Survey, April 2016-March 2017

Figure 8: % of workers who received job related training in last 4 or 13 weeks (16-64) by gender



SOURCE: Annual Population Survey, April 2016-March 2017

Indeed as Figure 2 shows only Northern Ireland, North East England and the West Midlands have lower shares of employees receiving job-related training than Scotland. This trend appears to be fairly consistent across gender (Figure 8); education levels (Figure 6); part-time and full-time workers (Figure 4); broad sector of the economy (Figure 5).

Aside from training rates, what do we know about the intensity of training or the type of training being received? In the next section we review some data from the Understanding Society survey to help us answer these questions.

How much training, and what types of training, are being delivered?

The APS data don't provide much insight into the types of training being undertaken. However, using a different data source, the Understanding Society survey data, we can get some insight into the frequency with which employees in Scotland are being trained and the types of training they are receiving.

Understanding Society is an annual survey of each adult member of a nationally representative sample. The survey is based on annual interviews with the survey members. Here we analyse data from Wave 6, for which fieldwork covered the year from mid-2015 to mid-2016.

Firstly, we can see that over 40% of workers in Scotland who received training over this period only received one period of training, with slightly over 14% of workers receiving 5 or more periods of training.

This means that we should be cautious about interpreting the headline data on whether or not a worker has received training in the previous 4 or 13 weeks as a measure of training intensity.

Nevertheless, we can conclude from the APS data reviewed earlier that the number of workers being trained is declining across the UK as a whole and across Scotland (Figure 4).

In Understanding Society they also ask survey participants about the type of training that they have received and the frequency with which particular types of training are described is recorded.

Table 1: % of workers undertaking some training since their previous Understanding Society interview, by number of training periods

Number of training periods	% of workers
1	43.4%
2	20.9%
3	14.3%
4	7.1%
5	5.3%
6	4.0%
7	0.7%
8	0.5%
9	0.5%
10+	3.3%

SOURCE: Understanding Society, Wave 6

Table 2: % of workers undertaking some training, by type of training

Description of training mentioned:	% of those undertaking training
to help get started in their job	7%
to improve their skills in their current job	60%
to maintain professional status and/or meet occupational standards	42%
to prepare them for a job they might do in the future	21%
to help them get a promotion	8%
health and safety training	22%
for hobbies or leisure	4%

SOURCE: Understanding Society, Wave 6

We can see that the dominant reasons for undertaking training are improving their skills in their current job, or meeting professional or occupational standards.

Encouragingly, around 1 in 5 of those undertaking some training are doing so to prepare themselves for a job that they may do in the future.

The Understanding Society data is a broader measure of training than that in the APS, for example it includes training undertaken outside of a professional setting (i.e. for hobbies and leisure).

Nevertheless, these data suggest a welcome focus for training on improving skills, meeting professional standards and helping people prepare for a job they may do in the future.

However, even if there is some evidence that people are undertaking the ‘right’ sorts of training, the overall declining trend in those being trained remains a concern. Not least because of anticipated trends of substantial technological change in the workplace.

Why should the decline in employee training be a concern?

We began this article by emphasising that training and investment in workers matters, not just for individuals and firms, but for the whole economy. We have seen that there is an overall declining trends across worker characteristics and work patterns of declining job-related training, but that of those who do undertake training the types of training being undertaken appear to align well with the development of their skills and have an eye to the future.

Nevertheless, we are seeing substantial technological change, and a realignment of the skills that workers need to compete in the modern labour market. In the absence of a wider engagement with training by workers and firms, and investment by firms and government in providing access to training, existing challenges of labour market polarisation are likely to continue and indeed to accelerate.

We discussed these challenges in some detail in the June 2017 edition of our Scottish Labour Market Trends publication ¹. While the Scottish Government have placed a clear emphasis on “[working] with employers to help them retain their workforce through continued training, workplace learning and up-skilling ²”, it is unclear at this stage how this will translate into tangible action and interventions. Indeed it is far from clear what are the most effective means of delivering on this ambition.

Going forward, if we are to address labour market polarisation and Scotland’s weak record on productivity growth more generally, it will be important that we engage stakeholders across the labour market in designing interventions. But crucially, it is essential that we also embed robust evaluation frameworks into those interventions. At this stage we don’t know, and can’t know, how well different initiatives will work in practice in Scotland, but what we can do is find out. The challenges are substantial, but so too is the scope to design and implement genuinely innovative initiatives backed up by a robust process for evaluating them.

Conclusions

This article has reviewed the recent data in trends in worker training in Scotland. It is clear that the headline trends are of a decline in rates of training across sectors, work pattern, gender and education levels. This decline in employee training matters for, at least, three reasons: firstly Scotland’s (and indeed the UK’s) productivity performance over the past decade has been weak – partly explaining the disappointing wage growth over this period. Secondly, as my colleague Professor Patricia Findlay has identified, employee training plays a role in job quality (see Findlay et al (2017)), and in turn job quality has important implications for productivity. Finally, against a backdrop of significant technological change and the rise of automation in industry it is essential to the future path of productivity, economic growth and prosperity that we invest now in reversing the hollowing out of the labour market, and preparing workers for the jobs of tomorrow.

This requires a joined up approach from government, but also participation from businesses and the third sector. It requires genuinely innovative thinking, and a willingness to experiment and adapt in new ways of delivering, and supporting people to engage with, training in the skills needed to compete in the labour market in the decades ahead.

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1. <https://www.sbs.strath.ac.uk/economics/fraser/20170613/labour-market-trends.pdf>

2. <http://www.gov.scot/Publications/2016/08/2505/5>

The economic impacts of late payment

Paul Hopkins and Kenny Richmond, Scottish Enterprise ¹

Abstract

This short paper presents an overview of existing evidence about the impact and consequences for companies who are paid later by their customers than agreed terms. It sets out evidence on the causes of late payment, impacts of late payment on companies and the economy and concludes by setting out potential policy responses.

Introduction

Research in 2016 into access to finance in the oil & gas industry ² identified that many supply chain companies were being affected by late payment (defined as being paid by their customers later than agreed terms). Following this, further research was carried out to better understand the extent and impact of late payment for the wider economy.

The extent of late payment practices

A range of evidence highlights that late payment is an ongoing and, in many cases, worsening issue for SMEs. For example:

- Scotland had the highest level of late payment in 2015 (67% of companies affected) ahead of Northern Ireland at 66%, England at 62% and Wales at 59% ³.
- The total late payment debt across UK business in 2015 was estimated to be £26.3 billion (Scotland's share would be approximately £1.8bn), an average of £32,185 for SME's who said they are affected ⁴. One in four SMEs say if this figure reached £50,000 they would have to declare bankruptcy ⁵.
- Late payment was a 'big problem' for 10% of all Scottish SME employers in 2015, and a less significant problem for 33% ⁶. Figures for the UK as a whole are similar (14% and 31% respectively ⁷).
- Medium sized (49%) and small businesses (44%) in Scotland were more likely to have had a problem with late payment than micro-businesses (42%) ⁸.
- Average payment time has increased since 2008 with small businesses (with turnover under £1m) waiting 71 days on average, compared to 48 days for large (£500m+ turnover) businesses ⁹.

1. Scottish Enterprise is Scotland's main economic development agency: <https://www.scottish-enterprise.com/>

2. Oil and Gas Finance Market Gap Analysis (March 2016): <http://www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=596>

3. Bacs Payment Schemes Limited:

4. Bacs Payment Services Ltd, £26 billion owed in late payments – but this won't get worse under Brexit, say smaller UK businesses (2016) : <https://www.bacs.co.uk/NewsCentre/PressReleases/Pages/%C2%A326BillionOwedInLatePaymentsButThisWontGetWorseUnderBrexitSaySmallerUKBusinesses.aspx>

5. Bacs Payment Schemes Limited

6. Scottish Government (2015) 'Small Business Survey Scotland': <http://www.gov.scot/Resource/0048/00483951.pdf>

7. Small Business Survey, Department for Business, Innovation & Skills (2015)

8. Small Business Survey, Department for Business, Innovation & Skills (2015). There was no statistically significant variation between Scotland and the UK as a whole. Micro businesses are those with less than 10 employees, small businesses have 10-49 employees, medium businesses have 50-249 employees.

9. Asset Based Finance Association, Late Payment, An analysis by sector, 2015: <http://www.abfa.org.uk/news/Documents/ABFA%20white%20paper%20-%20Payment%20days%20by%20sector.pdf>

There are also variances across sectors. Late payment was a greater problem in manufacturing (51% of SMEs), construction (66%) and business services (55%) compared to other sectors ¹⁰.

The impact of later payment on SME's

The European Commission found that in the UK, 30% of businesses indicated that late payment had links to subsequent redundancies (compared to 35% of businesses in Germany; 28% Spain, 25% in France) ¹¹.

The study also found late payment has a negative impact international exports as many businesses surveyed felt international activity was risky both due to the frequency of late payment and how to manage any cases that arise.

Late payment also forces many affected businesses to focus on 'day-to-day' activities rather than longer-term plans for growth and expansion ¹². Research has shown that the longer companies wait for payment, the lower the level of investment they make. A month delay in being paid would reduce capital spend by 1.2%, and could lead to reduced profitability for as long as five years thereafter ¹³.

There is evidence that late payment is linked to an inability to access affordable finance ¹⁴, due for example to an inability to demonstrate to lenders a clear cash flow (this is an issue Scottish oil & gas companies have reported ¹⁵).

Other consequences for businesses of late payment highlighted by research include ^{16 17} :

- time (with cost implications) having to be spent chasing invoices
- paying their own suppliers late
- increased borrowing/use of overdrafts
- difficulty paying bills like energy, rate and rent
- directors reducing their salary to keep cash within the company
- difficulty paying staff on time.

Overall, the evidence suggests that late payment is having a negative effect on the ability of many Scottish companies to invest and grow. More evidence is needed to establish the specific links between late payment, investment and internationalisation, but evidence that does exist indicates there is a link.

Reasons for late payment

Whilst in some cases late payment may reflect inefficient internal processes there are cases where larger companies use their power (either explicitly or implicitly) to 'compel' smaller companies into accepting late payment as standard practice.

10. BIS (2015) 'Small Business Survey 2014: SME Employers': : https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414963/bis-15-151-small-business-survey-2014-sme-employers_v1.pdf

11. European Commission, March 2016, 'Ex-Post Evaluation of Late Payment Directive': <https://publications.europa.eu/en/publication-detail/-/publication/400ecc74-9a54-11e5-b3b7-01aa75ed71a1>

12. Bibby Financial Services, December 2015, Q4 SME Confidence Tracker Report

13. ACCA, 2015 'Ending late payment. Part 1: Taking Stock': <http://www.accaglobal.com/content/dam/acca/global/PDF-technical/small-business/pol-tp-elp-1stock.pdf>

14. All-Party Inquiry into Late Payments in SMEs (July 2013) : <http://www.fsb.org.uk/docs/default-source/fsb-org-uk/uploads/manchester-and-north-cheshire/late-payment-enquiry-report.pdf?sfvrsn=0>

15. Oil and Gas Finance Market Gap Analysis (March 2016): <http://www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=596>

16. Hilton-Baird Collection Services, Hilton-Baird's Late payment Survey, January 2015: <https://www.hiltonbairdcollections.co.uk/wp-content/uploads/2016/05/Late-Payment-Survey-January-2015-Full-Report.pdf>

17. Bacs Payment Services Ltd (2016)

They use their market power and financial strength to pressure smaller companies into acquiescing; or simply pay late knowing it will not be challenged because of the importance of the contract.

How larger companies exercise this power can be complex. For example, some companies build in processes to delay acceptance of an invoice, whether through overzealous queries or via deliberately complex and lengthy accounts procedures¹⁸.

This type of behaviour becoming the ‘accepted norm’ can have a significant impact on the sustainability on companies in the industry, particularly if there is a reliance on single or larger customers. For example, in the oil & gas sector, many operators use exclusive contracts which limit the ability of SMEs to broaden their client base. If companies are being starved of cash due to late payment, it then becomes more difficult for them to invest in innovation and other growth plans.

A UK Parliamentary Inquiry noted that challenging late payments from larger clients was not seen as desirable as “SMEs are reluctant to trigger a statutory right to interest fearing losing a valuable client or developing a reputation of being overly litigious”¹⁹. In the oil & gas sector, many operators use exclusive contracts which limit the ability of SMEs to broaden their client base.

Late payment can also be due to internal financial inefficiencies as well as external factors beyond the control of the payer. Hilton Baird found the most common excuses for late payment were waiting for payment authorisation (27% of companies) and waiting to be paid themselves (19%)²⁰.

This suggests it is addressing both internal company processes as well as culture that are central to reducing late payment.

Policy response and their effect

There is no specific legislation outlawing late payment in any nation. At the UK level, the Small Business, Employment and Enterprise Act 2015 came into force in 2016²¹. This introduced a requirement for large and listed companies in the UK to report on their payment practices, including making public the proportion of invoices they pay beyond agreed terms. This is then shared centrally and made publicly available, but at this point appears to have made little impact as the lack of enforcement means it has little effect on behaviour²².

At the EU level, a Directive was adopted to reduce late payment, including a provision that companies have to pay their invoices within 60 days, unless they expressly agree otherwise (see Appendix A). However, the evaluation of the Directive highlighted that a lack of enforcement renders many initiatives toothless. It notes that “rather than legislation, national business culture, economic conditions and power imbalances are the driving factors for payment behaviour”²³.

18. ACCA, 2015 ‘Ending late payment. Part 1: Taking Stock’: <http://www.accaglobal.com/content/dam/acca/global/PDF-technical/small-business/pol-tp-elp-1stock.pdf>

19. All-Party Inquiry into Late Payments in SMEs (July 2013): <http://www.fsb.org.uk/docs/default-source/fsb-org-uk/uploads/manchester-and-north-cheshire/late-payment-enquiry-report.pdf?sfvrsn=0>

20. Hilton-Baird Collection Services, Hilton-Baird’s Late payment Survey, January 2015: <https://www.hiltonbairdcollections.co.uk/wp-content/uploads/2016/05/Late-Payment-Survey-January-2015-Full-Report.pdf>

21. In line with EU Directive, a summary of which is included at Appendix B.

22. All-Party Inquiry into Late Payments in SMEs (July 2013): <http://www.fsb.org.uk/docs/default-source/fsb-org-uk/uploads/manchester-and-north-cheshire/late-payment-enquiry-report.pdf?sfvrsn=0>

23. European Commission, March 2016, ‘Ex-Post Evaluation of Late Payment Directive’: <https://publications.europa.eu/en/publication-detail/-/publication/400ecc74-9a54-11e5-b3b7-01aa75ed71a1>

As part of its commitment to support sustainable business growth in Scotland, the Scottish Government launched the Scottish Business Pledge²⁴ in 2015. One of the nine commitments for signatories to commit to (or work towards) is prompt payment. The Pledge emphasises many of the consequences of late payment on SMEs, and the benefits to companies of paying their suppliers on time, and encourages businesses to pay promptly to support the supply chain and the wider Scottish economy²⁵. Benefits highlighted include:

- suppliers will be keen to work with businesses that pay on time
- avoiding costly late payment charges or compensation claims
- avoiding the costs of firefighting and strained relationships
- being able to approach suppliers and customers on confident terms and build their confidence
- being able to give a reliable service to customers because the supply chain is working effectively
- closer cooperation with suppliers can lead to more efficient delivery patterns, or new insight into alternatives for components or supplies.

As of June 2017, 267 businesses in Scotland had signed up to the prompt payment element, 72% of all businesses signing the Pledge²⁶.

Conclusions and actions

Late payment has a wide range of consequences for companies, including deferring investment and innovation plans, being unable to access finance and discouraging trading internationally, all of which act as a drag on economic and productivity growth.

Research offers insights into how companies can mitigate the effects and reduce the extent to which it is common practice, both those experiencing late payment and those adopting late payment practices. For example:

- Increasing the innovative capacity and the quality of the goods and services supplied to customers shifts the balance of power in the customer/supplier relationship²⁷. By increasing the importance of their product or service to the customer, this empowers them to enforce prompt payment regimes, through implied withdrawal of services. Furthermore, innovative businesses are more likely to have a more diversified client base. Therefore, if any contractual relationship is beset with late payment practices, the company has other income streams to mitigate the impact.
- Maximising other revenue streams through diversification to prevent a heavy dependency on one particular customer or client. Diversified income streams and client bases are however, not always possible for many SMEs.

In terms of changing the behaviours of those employing late payment practices, this paper has highlighted there is no simple fix as it appears to be driven as much by conventional norms and business culture than a deliberate power play. The responses of governments in the UK and across Europe fall short of compliance, and focus on education and encouragement. There is some emerging evidence that education and encouragement is making a difference, but perhaps not at the speed desired.

24. <https://scottishbusinesspledge.scot/>

25. <https://scottishbusinesspledge.scot/prompt-payment/>

26. <https://scottishbusinesspledge.scot/information/scottish-business-pledge-statistical-overview-june-2017/>

27. ACCA research found a “superior ability” of mid-sized businesses to withstand late payment practices by larger companies due to greater market power and diversified sources of income: <http://www.accaglobal.com/content/dam/acca/global/PDF-technical/small-business/pol-tp-elp-1stock.pdf>

Appendix A

European Late Payment Directive

To address the growing issues caused by late payment in the wake of the financial crash, the EU adopted a Directive in February 2011 to combat this in commercial transactions. This was enshrined in legislation across member states by 2013, the Directive set a minimum set of behaviours for companies, which enabled member states to go further if they deemed it appropriate.

Main provisions of the EU Late Payment Directive

- Public authorities have to pay for the goods and services that they procure within 30 days, or in very exceptional circumstances, within 60 days
- Enterprises have to pay their invoices within 60 days, unless they expressly agree otherwise and provided it is not grossly unfair
- Automatic entitlement to interest for late payment and €40 minimum as compensation for recovery costs
- Statutory interest of at least 8% above the European Central Bank's reference rate
- EU countries may continue maintaining or bringing into force laws and regulations which are more favourable to the creditor than the provisions of the Directive.

Only Sweden and Denmark went further than the Directive, introducing stricter provisions. Their legislation carried an implication that the longer the payment term is, the more likely any court will consider it to be grossly unfair. Any payment term beyond 30 days in these nations must be agreed – in writing – by both parties. Sweden also recognised the power imbalance in many of these relationships, and put into legislation that specific consideration should be given to protect the party in the weaker position in the business relationship, in any dispute. To date however, there is no evidence of these additional provisions having a beneficial impact for small firms in these countries.

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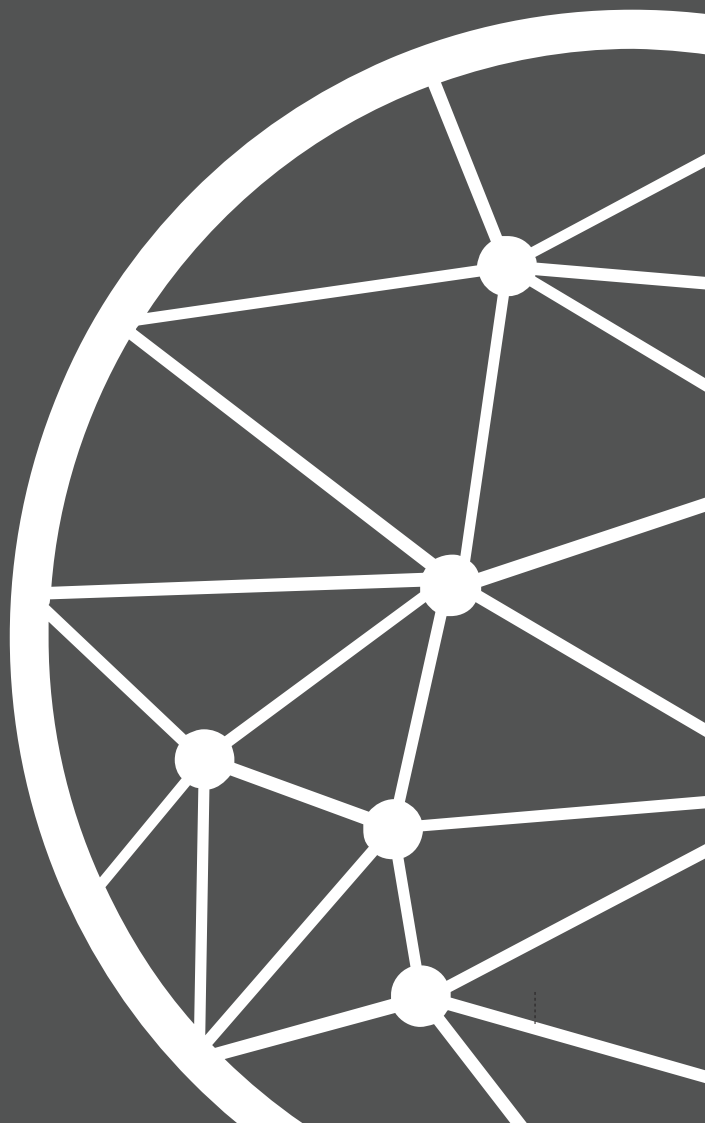
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