

Fraser of Allander Institute Economic Commentary

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## Fraser of Allander Institute Economic Commentary

## Vol 40 No 3

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\* Opinions expressed in the economic perspectives are those of the authors and not necessarily those of the Fraser of Allander Institute

# At a glance

- There remains a high degree of uncertainty around near-term forecasts for Scotland's economy in the light of the EU referendum outcome.
- On balance, we continue to forecast a weak outlook with growth below trend to 2019. This is on the back of continued growth in the 2<sup>nd</sup> half of 2016, albeit at a slow pace. We expect the economy to have grown by around 1% this year, well below the UK.
- But the UK economy has held up well since June and this momentum is likely to spill-over into 2017 allowing us to make a welcome upward revision to our Scottish outlook. Moreover the fall in Sterling, Bank of England stimulus, signs that the UK will press for a transition and not a 'cliff-edge' when leaving the Single Market, and a slightly less pessimistic environment for the North Sea, have all helped to improve the near-term outlook relative to our July forecasts.
- However, these effects will only partially mitigate rather than fully offset the challenges posed by Brexit. Consumption and investment growth are likely to slow significantly in 2017 and 2018 relative to our pre-referendum forecasts. Unemployment will be higher and earnings will be lower with working households feeling the pinch.
- Our central forecast is for growth of 1.1% in 2017, 1.3% in 2018 and 1.6% in 2019 a revision of around +0.15% points per quarter for 2017. However, these could change materially under different circumstances. During these uncertain times we recommend that just as much focus is given to the full range of estimates that underpin this outlook as to any specific estimates.

FAI forecast Scottish GVA growth (%) by sector, 2016 to 2019						
	2016	2017	2018	2019		
GVA	1.0	1.1	1.3	1.6		
Production	1.4	1.3	1.5	1.8		
Construction	0.5	0.7	0.8	0.9		
Services	1.0	1.1	1.2	1.5		

#### Forecast Scottish unemployment, 2017 to 2019

	2017	2018	2019
Unemployment	151,100	155,750	166,400
Rate (%) <sup>1</sup>	5.6	5.7	5.9

Note: Rounded to the nearest 50. <sup>1</sup> = Rate calculated as total ILO unemployment by total economically active population 16+.

Source: Fraser of Allander Institute

#### GVA forecast range 2016 to 2019



# Summary

The Scottish economy returned to growth during the second quarter of 2016, and most indicators suggest that growth has continued – albeit at a relatively slow pace – through the remainder of the year.

Employment in Scotland remains close to record levels.

However, Scotland continues to lag the UK with Scotland's recent growth rate just 1/3 of that in the UK. We expect Scotland to have grown by around 1% this year, broadly in line with our July forecast.

Whilst unemployment has fallen sharply recently, this appears to stem, not from people finding work, but from people exiting the labour force.

With new tax powers coming on-stream in April, it is vital that the gap with the UK is closed.

Overall, the UK economy has held up well since the EU referendum. There are a number of reasons for this.

Firstly, stronger than expected growth in early 2016 has helped propel the economy through the summer and autumn uncertainty.

Secondly, sentiment was boosted by the larger than anticipated stimulus from the Bank of England – which included a further cut in interest rates.

Thirdly, the value of Sterling has fallen sharply. In the short-term, this is supporting exporters and boosting overseas income, but at the cost of higher inflation.

Fourthly and arguably most importantly, the immediate risk during July and August was a sharp loss of confidence. After an uncertain start, the UK Government – supported by the Bank of England – has acted swiftly to

counter any threats to overall macroeconomic stability. Moreover, the signals that the government will seek a transition rather than a 'cliff-edge' exit from the Single Market has allowed businesses to press on with day-to-day activities.

But earnings are down and productivity remains dire. The public finances have been hit with additional borrowing of £120bn now forecast by 2020-21.

The outlook for the North Sea is marginally more positive than in July. Tentative signs of a stabilisation in confidence, coupled with a rise in the oil price from its early 2016 low, offer a glimmer of hope for 2017.

It should be noted that, while the recent positive developments in the UK economy are to be welcomed, they will only partially mitigate – rather than fully offset – the challenges of Brexit.

Brexit poses questions about the fundamental structure of our economy and these will take time to emerge and feed through to the hard economic data.

Our expectation is that growth will remain below trend through the forecast period.

Our central forecast is for growth of 1.1% in 2017, 1.3% in 2018 and 1.6% in 2019. Unemployment is likely to rise in 2017 and earnings growth will remain weak.

But there remains a considerable degree of uncertainty around forecasts in the current climate. If, for example, the process for triggering Article 50 is delayed or there is a hit to economic confidence, then this could have a material impact on the outlook.

> Fraser of Allander Institute December 2016

# **Outlook and Appraisal**

The Scottish economy returned to growth in Q2 2016 and growth is expected to have been sustained through the year. But annual growth in the twelve months to June of just 0.7% (vs. 2.2% for the UK) remains disappointing. Economic prospects remain highly uncertain as the UK prepares to negotiate to leave the EU

Table 1: Scottish GDP growth (%) by sector, Q2 2016					
	GDP	Agriculture	Production	Construction	Services
Quarterly Growth	+0.4	+0.9	+0.3	-1.9	+0.5
UK	+0.7	-1.0	+2.1	-0.1	+0.6
Annual Growth	+0.7	+1.9	-2.9	-4.5	+2.0
UK	+2.2	-0.7	+1.6	+0.4	+2.7
Source: Scottish Government					

Table 2: UK labour market, Jul-Sep 2016

	Employment (16-64)	Unemployment (16+)	Inactivity (16-64)
Scotland	73.6%	4.7%	22.6%
England	74.8%	4.8%	21.3%
Wales	73.1%	4.4%	23.4%
N. Ire	69.9%	5.6%	25.8%
UK	74.5%	4.8%	21.7%
		Sourco	

Source: ONS, LFS



#### Chart 1: Independent forecasts for UK growth 2017

#### Introduction

The Scottish economy grew by +0.4% in Q2 2016 up from -0.0% in Q1. Most indicators suggest that this growth has continued – albeit at a relatively slow pace – through the 2<sup>nd</sup> half of the year.

Despite the ongoing challenges in the oil and gas sector, employment in Scotland remains close to record levels. Overall, the Scottish economy has been relatively resilient to recent headwinds.

However, there are challenges. Scotland's growth rate lags the rest of the UK, whilst the recent fall in unemployment stems, not from people finding work, but from people exiting the labour force.

The UK economy has held up well since the EU referendum. A number of factors explain this resilience, including the larger than expected drop in the value of Sterling boosting exports and a bold stimulus package from the Bank of England.

At the same time, the UK economy appears to have had greater momentum in the first half of 2016 than initial data suggested. This has helped support growth through a summer and autumn of uncertainty. There has also been a marked dropoff in UK political instability of late.

However, employment growth has eased, productivity and earnings remain weak and inflation has picked up.

Most forecasters have revised down their expectations for UK growth in 2017 and 2018, albeit the average of these forecasts has risen a little since the summer and the range of predicted outcomes has narrowed. This, in turn, has an impact on our own forecasts for Scotland.

	2016	2017	2018
UK	2.0	1.2	1.0
US	1.5	2.3	3.0
Japan	0.8	1.0	0.8
Canada	1.2	2.1	2.3
Euro Area	1.7	1.6	1.7
Germany	1.7	1.7	1.7
France	1.2	1.3	1.6
Italy	0.8	0.9	1.0
Source: OECD			

Table 3: OECD forecasts for G7 Growth



#### Chart 2: European unemployment rates, Q3 2016

Source: Eurostat





Source: Thomson Reuters Datastream

#### The global economy

The UK is on track to be the fastest growing G7 economy in 2016 – although it is expected to slow relative to its competitors in 2017 and 2018.

US growth is expected to pick-up, even prior to factoring in any stimulus package from Presidentelect Trump.

Having recovered from its weakness in 2013, Euro Area growth has been steady over the past two years (although growth remains weak by historical standards). Political and economic stability concerns remain including ongoing questions over some EU banks, nowhere more so than in Italy.

Unemployment remains high – 10% in the Euro Area – and without major reform it is difficult to see how this will fall significantly in the next few years.

Overall, global economic conditions remain finely balanced. The IMF believes that a complex mix of economic realignment, structural challenges and new shocks will lead to subdued growth, and increased uncertainty, in the short-term.

The risks are judged to lie to the downside, largely due to ongoing vulnerabilities in emerging economies.

Over the past few years, growth in China has slowed from around 10% to closer to 6.5%. Toward the end of 2015, there had been concerns of a hard landing. Those fears have diminished somewhat, although growth continues to depend upon rising levels of credit which poses a risk to medium-term sustainability.

Global inflation remains relatively subdued following the fall in oil prices in 2014–15.

Following two years of over-supply, the world's leading oil producers have finally responded with plans to cut production to put a \$50-a-barrel floor under the price of oil and push it towards \$60.

Prospects to go much above seem remote, particularly with continued efficiency improvements in US shale operations. Even then, a price of \$60 is a much more attractive proposition for Scotland's North Sea producers than the low of below \$30 in January 2016.



Chart 4: Purchasing Managers Index (PMI) for UK

Source: IHS Markit

\* Above 50 = expansion of activity, below 50 = contraction.





Source: Thomson Reuters Datastream



Chart 6: Investment intentions slowing for next 12 months - Bank of England agents' survey to Q4 2016

growth in 2016.

with the OBR's March forecast but down from 0.7% in Q2. On balance the UK economy is expected to come in close to pre-referendum expectations for overall

The slowing in Q3 mainly reflected falls in manufacturing and construction, although services also grew more slowly. In part, this is likely to have reflected a weakening in commercial real estate with consumer-facing services strengthening further.

Indeed, the key driver of growth in the UK economy during 2016 - as in the past two years has been in household spending. This had been projected to ease in 2016, but the data for the 2<sup>nd</sup> half of 2016 - including leading indicators such as new car registrations and retail sales - suggest that growth has remained robust.

There is growing evidence that investment intentions have slowed. A result supported by surveys from the CBI and Bank of England agents.

The UK economy – and consumer spending in particular - has held up remarkably well following the EU referendum.

Most forecasters, including the Bank of England, predicted that demand would slow materially during the 2nd half of 2016, although there was admittedly considerable uncertainty around such a judgement.

Initially, survey indicators of economic activity fell markedly to levels consistent with a sharp fall in output. They have however, re-bounded strongly.

Measures of uncertainty also spiked after the referendum, and such uncertainty had been expected to remain elevated in the near term. But they too have returned to more normal levels.

Since then, any slowdown in growth has been less severe than those indicators initially suggested. The UK economy grew by 0.5% in Q3 2016, in line

8



## **Chart 7:** Contributions to average quarterly GDP by expenditure (outturn and OBR) forecast



Chart 8: Sharp fall in sterling since referendum

Source: Thomson Reuters Datastream

Table 4	OBR	forecast.	Autumn	Statement	2016
		iorcoust,	/ tutuinini	otatomont	2010

	2016	2017	2018	2019	2020
GDP	2.1	1.4	1.7	2.1	2.1
change	+0.1	-0.8	-0.4	0.0	0.0
Consumption	2.8	1.2	1.1	2.1	2.0
change	+0.4	-1.0	-1.0	+0.1	+0.1
Business Investment	-2.2	-0.3	4.1	5.3	4.1
change	-4.7	-6.3	-1.8	-0.2	-0.3
CPI Inflation	0.7	2.3	2.5	2.1	2.0
change	0.0	+0.7	+0.5	+0.1	0.0
Unemployment (% rate)	5.0	5.2	5.5	5.4	5.4
change	0.0	+0.2	+0.3	+0.1	+0.0

Source: OBR

\* Italics are change from March forecast

There is little evidence of Brexit-induced uncertainty depressing day-to-day spending thus far. Part of the reason has been ongoing growth in house prices – particularly in London and the South East – which has helped to support household spending.

Households had also been benefiting from improving real earnings boosted by relatively low inflation at the start of the year.

But this is likely to change in the months ahead with inflation to increase sharply as import prices rise. Since the referendum, the value of the pound has fallen significantly – and is now around 15% lower than where it started 2016.

This has helped to boost exports and returns on financial markets (with overseas earnings benefiting from the lower value of the pound).

However a sharp depreciation is a double-edged sword. By lowering real earnings, higher inflation will erode livings standards and hit household spending hard over the next couple of years.

#### The UK economic outlook

As highlighted above, most forecasters have revised down their predictions for the UK economy for 2017 and 2018. However, there remains considerable debate over the scale of the slowdown, the timing of any Brexit-impacts and the extent of the risks involved.

This, as the OBR took great pains to point out in their <u>Economic & Fiscal Outlook</u>, stems from forecasters being 'little the wiser' with regard to the UK Government's negotiating strategy for the terms of exiting the EU.

Based on this uncertainty, most forecasters have had to make a number of important judgement calls. The most important of which is when the UK will actually trigger Article 50.









#### Chart 11: Forecast comparisons – OBR more optimistic



As we highlighted in our July 2016 Economic Commentary, it is important to distinguish between the short-term and the long-term (more structural) implications of Brexit.

Most economists predict that once the UK has left the EU, it will face a more challenging environment for trade, labour mobility and investment as we become less integrated with our largest trading partner.

Productivity – the key to long-term prosperity – may also be weaker if leaving the Single Market reduces competition, skilled migration, inward investment and financial integration.

There will however, be opportunities. Businesses will find new markets and sectors to operate in and policy may change.

The short-run dynamics are more complex and uncertain. Businesses will not – and cannot – adjust their plans overnight. They may put off major decisions until the final settlement is known, but day-to-day domestic trends in demand are likely to be of more immediate significance.

In looking at the near-term outlook, most economists predict that on balance, growth will slow in 2017 and 2018.

Higher levels of uncertainty are likely to lead to some investment being postponed or cancelled. At the same time, the fall in Sterling – Chart 8 – will feed through to higher inflation which will in turn impact real earnings and household spending.

Against this, Sterling's depreciation will help exporters and sectors such as tourism, although it will have a negative impact on those more dependent on supply chain imports. The stimulus from the Bank of England will continue to support the economy in the near term – with no real prospect of an interest rate rise soon – whilst the pace of fiscal consolidation has also eased slightly.

However, the OBR still predict that the UK economy will be around £30 billion smaller in 2020 than they forecast back in March.



Chart 12: Potential output and forecast outturn permanent hit to output since 2010 and gap widening



	Annual % change	Output per hour worked
	2011	0.9
UK productivity was growing at close to its historical average of around 2% per year in the decade prior to the 2008-09	2012	-0.8
	2013	-0.5
financial crisis.	2014	0.6
Since then productivity growth has	2015	0.9
been largely stagnant.	2016 Q1	0.5
	2016 Q2	0.4
		Source: ONS



Chart 13: Weak outlook for real household income

Source: Office for Budget Responsibility

The OBR are however, slightly more optimistic than most forecasters, including the Bank of England. And both are more optimistic than the average of independent forecasters.

In particular, the OBR predict near trend growth of 2.1% in 2019 following a bounce back in activity something that the Bank is less certain of.

In the medium to long term, the most important driver of growth and living standards is what happens to potential output. This is the estimated level of activity that the economy can produce without rising inflation. The key (but also uncertain) driver of potential output is productivity.

Needless to say, there is greater uncertainty than usual around the judgements for the path of potential output post-Brexit.

To the extent that any slowdown is not just a normal cyclical change but also a hit to potential output - i.e. from lower investment, reduced migration etc. - the weaker the economy will be in the long-run.

The UK's poor productivity performance cannot be traced just to Brexit. Indeed it's been a consistent feature since 2008. The reasons however, remain a source of heated debate.

Since 2010, the OBR has consistently predicted that the UK economy will return to its long-term trend productivity growth rate in time. But each year this has failed to materialise.

Weak productivity is the key reason earnings have performed so poorly in recent years, and why tax revenues have been below forecast.

With poor productivity growth and rising inflation, most forecasts for earnings are dismal. The Institute for Fiscal Studies predict that earnings will not recover to 2008 levels until 2020 at the earliest.

Coupled with uncertain prospects for employment and a freeze in many working-age benefits, the outlook for many households will be challenging with real income rising just 0.1% points in 2017.



## Chart 14: Causes of higher borrowing – Brexit and other factors

#### Table 6: Changing UK Fiscal Rules

Previous Rules		On track
Fiscal Mandate	Surplus on net borrowing by 19-20	×
Supplementary Target	Net debt to fall as % of GDP in each year to 2019-20	×
Welfare Cap	Annual limits on welfare to 2020-21.	×
New Rules		
Structural Deficit	Cyclically adjusted borrowing to be below 2% of GDP in 20-21	$\checkmark$
Debt	Net debt to fall as % of GDP by 20-21 (and not each year)	~
Welfare Cap	Subset of welfare spending to be below new cap set for 21-22.	~
	Source	: OBR



#### Chart 15: UK private sector debt high and increasing

#### The autumn statement

The combination of a near-term economic slowdown and a permanent hit to productivity has led most economists to predict a weakening in the UK public finances over the next few years.

In November's Autumn Statement, the new Chancellor outlined revised forecasts for the public finances which included over £120 billion of additional borrowing to 2020-21.

The biggest driver – around 50% - of this increase can be attributed to the weaker economic outlook from Brexit. However, it also includes substantial revisions to receipts, particularly in 2016-17 and 2017-18, in the light of poorer tax revenues more generally.

The Statement included a stimulus of around  $\pounds 9$  billion by 2020-21 – compared to March's Budget – with a particular focus on productivity.

The Chancellor is now no longer on track to meet his predecessor's goal of running a fiscal surplus by 2019-20. Indeed, instead of a fiscal surplus of £10 billion in 2019-20, the OBR now forecast that the UK will be running a deficit of £20 billion.

In response, the Chancellor opted neither for a large stimulus nor more austerity (at least for now) and chose instead to abandon the fiscal rules. 10 of the UK's 12 fiscal rules since 1997 have now either been broken or abandoned.

The new looser 'fiscal mandate' is to run a cyclically adjusted deficit of less than 2% of GDP by 2020-21. Based on current forecasts rather than be seen as a tight constraint on borrowing, it is more akin to an upper limit – with around £26 billion spare in case the outlook deteriorates.

Much of the recent debate has centred upon the scale of public debt – at nearly 90% of GDP. Of perhaps greater concern, and much less discussed, is the recent return to growing levels of private sector debt. Indebtedness of this scale – particularly amongst households – has the potential to pose long-term structural challenges, particularly if earnings remain weak.

 Table 7: Scottish Budget: 16-17 to 20-21 (real-terms in 16-17 prices)

	16-17	17-18	18-19	19-20	20-21	
£ million (16-17 prices)						
RDEL	£26,088	£26,112	£25,624	£25,271	£25,219	
Change	on 16/17	£24	-£463	-£816	-£869	
Cumulative change 20/21 on 16-17 -£2,124						
CDEL	£2,891	£3,042	£3,187	£3,330	£3,386	
Change	on 16/17	£150	£296	£438	£494	
Cumulative change 20/21 on 16-17 £1,378						

Source: Fraser of Allander





## Chart 17: Scottish Government Capital Budget Outlook

#### The autumn statement and Scotland

This year's Autumn Statement had important implications for the Scottish Government's Budget – and sets the scene for the Finance Secretary's statement on the 15<sup>th</sup> December.

Under the new fiscal framework, the Scottish budget now depends upon a complex mix of grant from Westminster and devolved tax revenues.

Prior to the Autumn Statement, there was considerable uncertainty as to what the Chancellor may choose to do to departmental spending across the UK – and therefore what this may might mean for the Scottish block grant.

In the end, he chose to largely follow the plans of his predecessor George Osborne – which implies a cut to Scotland's Block Grant of around 3.3% between 2016-17 and 2020-21.

The exact size of Scotland's Budget will now also depend upon how well Scottish tax revenues perform. As Chart 16 highlights, if Scotland's tax revenues grow more quickly than in the rest of the UK – as they have done on average since devolution – the Budget will be larger than it would have been without tax devolution (and vice versa).

Scotland's Budget outlook will of course also depend upon the tax policy choices of the government – which based on the SNP manifesto amount to around £200 million by 2020-21 on devolved taxes on top of £100 million from changing council tax bands.

Far greater are the government's spending plans. Taking just pre-announced commitments in health, police and childcare for example, implies realterms cuts of between 10-13% by 2020-21 for 'unprotected areas'.

The Chancellor did announce a further boost to capital investment – a cumulative £800 million of new consequentials between 2016-17 and 2020-21. Coupled with Scotland's new borrowing powers of £450 million per annum, Scotland's capital budget could be back above 2010-11 levels for the first time by 2020-21.

Source: Fraser of Allander

## Chart 18: Scottish Economic Performance – lagging the UK





Chart 19: Challenges in manufacturing linked to North

Source: Scottish Government



Chart 20: Drivers of Quarterly Change – Services making greatest contribution to overall growth

#### Recent Scottish economy data

The most recent official data on the Scottish economy covers the period to June 2016.

It shows that the Scottish economy returned to growth – with output up 0.4% in Q2, an improvement on the -0.0% in Q1.

Underlying growth is likely to have been stronger. Longannet power-station closed in March and reduced output by approximately 0.2%.

However, the gap between Scotland and the UK continues.

Manufacturing grew 0.8% over the quarter but remains down 3.6% over the year and over 5% since early 2015. The sectors most directly tied to the downturn in the North Sea remain weak.

Construction continues to return to more normal levels. As we highlighted in July, according to the official statistics, construction grew by 35% between Q2 2013 and Q2 2015. Setting aside any concerns about the data, growth of this scale cannot continue indefinitely. Unsurprisingly construction fell 3.0% in Q1 and 1.9% in Q2.

Thirdly, the all-important services sector continued to grow and was the key driver of the change in output. Q2's figure of 0.5% comes on the back of growth of 0.5% in Q1 2016.

Finally, on closer inspection, we find that – in addition to Longannet – two sectors had a disproportionate impact on the quarterly results.

Firstly, the Professional, Scientific, Administrative & Support Services sector grew 3.6% in the quarter.

Secondly, there was a (huge) 7% increase in the output of the Water Supply & Waste Management sector in Q2. This is a very small component of the overall economy (just 1.3% of total output) so normally changes here have little impact on the overall rate of growth.



Chart 21: Expenditure components of nominal GDP – households remain most important factor



Chart 22: Investment back at pre-financial crisis levels in Scotland

-Scotland 12% Savings Ratio to Household Incom -UK 10% 8% 6% 4% 0% 2007 2016 2008 2009 2010 2011 2012 2013 2014 2015 Source: Scottish Government & Fraser of Allander Calculations

**Chart 23:** Savings Ratio continues to fall with the ratio slightly lower in Scotland than in the UK as a whole

14%

But on this occasion and taken together, these two sectors contributed around 0.5% to the overall growth rate of the whole Scottish economy – so in effect, without these volatile sectors, growth would have been virtually flat (or negative) once again.

The Quarterly National Accounts for Scotland publication shows that investment (Gross Fixed Capital Formation) was the main contributor to Q2 growth - up 5.2% in nominal terms from the first three months of the years. As Chart 22 shows, investment in Scotland had been lagging behind the rest of the UK recently, but has been growing more quickly in recent months.

Whilst the contribution from net trade was positive during the quarter, this was only the second time in the last six quarters where it boosted rather than contracted output. Manufacturing exports are down 5% on the year.

Overall, Scotland's declining export performance is of considerable concern and a key challenge for policymakers.

Growth in household spending remains – on balance – the most consistent driver of growth in the Scottish economy.

Interestingly, Scotland's estimated saving ratio remains much lower than for the UK. If this reflects some households using up savings in order to support consumption, and this is before inflation increases and employment prospects become more uncertain, then it may not bode well for future growth prospects. How this interacts with current relatively high levels of household indebtedness will be worth watching.

#### Chart 24: Employment & Unemployment: Jul-Sep 2016



Source: ONS, Labour Force Survey







#### Chart 26: Changes for Men and Women: Last 18 months

#### The Scottish labour market

Our new report – <u>Scottish Labour Market Trends</u> – aims to provide a detailed quarterly discussion of developments in the Scottish labour market.

This highlighted that on most headline indicators, Scotland's labour market continues to perform relatively well in what continues to be a challenging economic environment.

Scotland's unemployment rate (4.7%) is once again lower than that for the UK (4.8%).

Although it has slipped back slightly over the past 18 months, employment in Scotland remains close to record highs.

However, some of these more positive statistics hide a number of more challenging trends. In particular, the recent sharp fall in unemployment appears to stem, not from people finding work, but from people leaving the labour force.

Indeed, whilst unemployment has fallen by 38,000 over the year, employment actually fell by 12,000 (both 16+). At the same time, inactivity increased by around 54,000 (16-64).

Inactivity rates had been relatively stable since the end of 2012, but they have increased over the past 18 months.

Women account for much of the rise. The increase in female inactivity of over 50,000 (16-64) coincides with falling unemployment (-19,000) and employment (-32,000) (both 16+) over the past 18 months. This could, in part, be driven by a reversion to trend. Female inactivity had been falling up until the start of 2015.

Interestingly, a similar result is evident in the rate of underemployment in Scotland.

Underemployment in this context refers to the proportion of people, in work, who would like to work longer hours than they currently do at the same rate of pay. Whilst it has fallen back to 2011-12 levels, underemployment remains much higher than before the 2008-09 financial crisis.



Chart 27: Underemployment (hrs) rate: 07-08 to 15-16







Chart 29: Productivity levels in Scotland remain weak

A feature of recent years has been an increasing more to part-time employment. Indeed over the past decade, over two thirds of the growth in total employment has been in part-time work.

Of those in part-time work, around 1 in 7 indicate that the key reason that they took such work is that they cannot find full-time work (up from 1 in 10 a decade ago).

Concerns about the number of people in temporary work have gained attention in recent months. 1 in 3 temporary workers currently say that the main reason they are in such employment is because they cannot find permanent work, up from 1 in 4 a decade ago.

Moreover, not only is the share of employment that is full-time lower than its pre-financial crisis average, mean hours worked are also lower.

Taken together, these indicators suggest that the rapid rise in employment, which has been a key feature of the Scottish labour market in recent times, may be masking underlying challenges in terms of the type of employment being created.

Productivity in Scotland has barely improved since 2010 – although it has fared slightly better than the UK as a whole.

The precise causes of this 'productivity puzzle' remain a mystery, although there have been plenty of explanations proposed – including low levels of investment in the public and private sectors, limited investment in R&D and innovation, poor access to finance, inhibited 'creative destruction' processes as a result of financial sector restructuring, and the nature of recent technological developments.

If Scotland is to meet the challenges of Brexit, then tackling this relatively weak performance – and its drivers such as a lower propensity to export and internationalise, poor levels of investment, lower innovation etc. – will be key.



#### Chart 30: Consumer Confidence in Scotland and the UK





Table 8: Permanent	Staff Placements:	2016
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50 = 'no change'	Scotland	UK
Jul	47.1	45.4
Aug	53.3	51.1
Sep	55.2	51.0
Oct	49.8	54.6
		Source, IUS Markit

Source: IHS Markit

#### Table 9: PMI Scotland and the UK

50 = 'no change'	Scotland	UK
Jul	49.2	47.3
Aug	49.1	53.1
Sep	51.2	53.8
Oct	50.6	54.6
		Source: IHS Markit

#### Outlook

As in the UK, Scotland's immediate economic outlook will largely be shaped by the prospects for household spending.

In general, there has been a gradual easing in levels of consumer confidence in Scotland. The market research GfK index (where 0 = balance) was -9 in November, implying consumers are pessimistic about the outlook.

Unsurprisingly, the prospects for higher inflation are beginning to weigh on people's minds with an increasing number of consumers expecting prices to rise rapidly through the course of 2017.

A useful 'soft-indicator' for labour market conditions is the IHS Markit Jobs Report. August and September were strong months – and better than the UK – but October saw falls in both permanent and temporary posts.

Wider business surveys also paint a mixed picture.

The IHS Markit PMI for Scotland has been relatively weak since mid-2015. It indicated that output contracted marginally in July and August, but bounced back in September - driven by the sharpest increase in new business intakes since August 2015 – before slipping a little in October.

Overall, the PMI has showed a weaker economic performance in Scotland than for the UK as a whole even before the EU referendum.

The latest RBS Scottish Business Monitor for Q3 2016 did contain some evidence of resilience in the Scottish economy over the summer – fuelled by a boost in tourism.

33% of firms reported an increase in the volume of business, compared to 30% who witnessed a fall. A similar split was found in terms of expectations for the next six months.

The North East continues to lag Scotland as a whole with 40% of respondents reporting falling in business activity.



## Chart 32: RBS/FAI Business Monitor shows mixed signals

Source: Fraser of Allander/RBS Scottish Business Monitor

Table	10: Latest	Nowcasts for	Q3 and	Q4 for	Scotland
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1.0070
1.50%
0.37%
Q4

Chart 33: Oil and Gas optimism 2010-2016: Still negative but picking up from record lows



Commerce

Similar results were found in the latest Scottish Chambers of Commerce survey – with relatively fragile levels of performance and optimism in most sectors.

To make better sense of all this, and to provide an up to date assessment of the performance of the Scottish economy, we produce a monthly 'nowcast' of quarterly growth: www.fraserofallander.org.

In estimating our nowcasts, we make use of a wide variety of different data sources, including the latest business surveys and up-to-date information on Scotland's labour market and other indicators.

On balance, our nowcasts suggest that going on the available suite of current evidence, the Scottish economy has continued to grow at a relatively stable (but slow) pace through the second half of 2016. Combined with published data for the first six months of the year, this points to growth of around 1% for the year as whole.

As in recent Fraser Economic Commentaries, the outlook for Scotland will depend markedly upon the prospects for the oil and gas sector.

We are now entering the third year of the current low oil price cycle. Investment has fallen around 40% from its 2014 peak and exploration levels remain low, with only six exploration wells spudded so far this year. Oil and Gas UK estimates that the sector is now supporting around 120,000 fewer jobs across the UK supply chain than it did just two years ago.

There are some signs however, that the restructuring in the sector may have helped mitigate – at least in part – recent declines.

Business confidence remains negative but has stabilised relative to recent record lows.

Our judgement is that the outlook for the North Sea is slightly more positive – or at least less negative – than in July and this provides a modest positive uplift to our forecasts for the overall Scottish economy since July.



### **Chart 34:** Scottish and UK output per head – Scotland behind UK recently but gap not as stark as for total GDP

 Table 11: Changing labour market measures: last 12 months

	Emplo Ra	oyment ate	Unemp Ra	loyment ate	Inac Ra	tivity ate
Scotland	73.6%	-0.6%	4.7%	-1.3%	22.6%	+1.6%
UK	74.5%	+0.7%	4.8%	-0.5%	21.7%	-0.3%
					Source: C	NS, LFS

Chart 35: Wages, employment and tax revenues per capita, Scotland as % of UK



#### Outlook for Scottish tax revenues

A number of tax revenues and powers are in the process of being transferred to the Scottish Parliament.

Most notably, revenues from Non-Savings Non-Dividend income tax is being devolved in time for April 2017, together with the ability to vary rates and thresholds.

Under the new fiscal framework, the size of the Scottish budget will now depend on how well Scottish devolved taxes *per head* fair relative to their equivalent counterparts in the rest of the UK (rUK). If they grow at the same rate, the Scottish budget will be no better or worse off than it would have been without tax devolution.

However, even small differences in relative tax growth could equate to large budgetary effects over the course of several years. For example, if per capita Scottish tax revenues grew just 0.35 percentage points more slowly than in the rUK per annum, this could leave the Scottish budget smaller by £250m in 2020 relative to what would have been the case under Barnett.

Output per head provides a useful proxy for relative performance but the key drivers of income tax revenues will be the employment rate and growth in wages.

As highlighted previously, Scotland's employment has been weaker than for the UK as a whole over the past 12 months.

During the past two years, the median wage of Scottish workers has also grown more slowly than the median wage of rUK workers.

What is arguably more important than median wages for income tax revenues is the wage growth of higher income earners, as they contribute a disproportionate amount of income tax.

Here, between 2015 and 2016 wage growth at the 90<sup>th</sup> percentile in Scotland grew at half the rate of the 90<sup>th</sup> percentile in rUK (1.3% v. 2.7% respectively).

 Table 12: Median (full-time) gross weekly earnings

	Sc	ot	U	К	CPI
	Earnings	change	Earnings	change	
2014	£519.60	2.1%	£518.3	0.2%	1.8
2015	£527.00	1.4%	£527.1	1.7%	-0.1
2016	£535.00	1.5%	£538.7	2.2%	0.3
			-		

Source: ONS, ASHE

Chart 36: Oil and gas contractor average pay: 2014-2016



Chart 37: Interaction devolved/reserved policy 2017-2018



One explanation is the downturn in the offshore economy. Median wages declined by 5% in Aberdeen and 4% in Aberdeenshire between 2015 and 2016. In the latest FAI/AGCC survey, the median average change in pay in the last year within the sector was -4.5%. The first time in the history of the survey that firms reported an average pay reduction.

It remains to be seen whether these recent trends of relatively slower growth in Scottish employment and wages continue. If they do, the Scottish economy will do well to match the rUK in terms of revenue growth per capita for devolved and assigned taxes. The Scottish Government is due to publish forecasts for tax revenues in its Draft Budget on 15<sup>th</sup> December.

The Scottish Government may also choose to change tax policy. Two major policies have been announced for next year –

- to freeze the higher rate threshold in real terms and then increase it by no more than inflation until 2021-22; and,
- to alter the multipliers on council bands E-H, raising around £100m for education attainment.

The policy to freeze the higher rate threshold (the rate at which people start paying tax at 40p) amounts to a tax rise for Scottish higher rate taxpayers relative to their rUK counterparts. The Scottish Government had estimated that the policy would raise around £130 million next year, but higher inflation is likely to reduce that revenue to around £100 million – assuming CPI is used.

A quirk of the policy is that higher rate taxpayers in Scotland will face a combined income tax and National Insurance marginal tax rate of 52% on income between the Scottish and rUK high rate thresholds (i.e. between approx. £43,500 and £45,000). This is because the upper earnings limit for national insurance (which remains reserved to Westminster) drops from 12% to 2% when earnings move into the (rUK) higher income tax threshold.

Table 13: Latest growth forecasts for the UK economy

	2017	2018	2019
Bank of England	1.4	1.5	1.6
OBR	1.4	1.7	2.1
NIESR	1.4	2.2	2.3
European Commission	1.0	1.2	n/a
IMF	1.1	1.7	1.8
Oxford Economics	1.4	1.2	1.5
ITEM Club	0.8	1.4	1.6
CBI	1.3	1.1	n/a
		Source:	HM Treasury

Table 14: FAI forecast Scottish GVA growth (%) 2016 to 2019

	2016	2017	2018	2019
GVA	1.0	1.1	1.3	1.6
Production	1.4	1.3	1.5	1.8
Construction	0.5	0.7	0.8	0.9
Services	1.0	1.1	1.2	1.5

Source: Fraser of Allander Institute





Source: Fraser of Allander Institute

\* Actual data to 2015, central forecast with forecast uncertainty for 2016 – 2019

Uncertainty bands sourced from accuracy of past forecasts

#### Our forecasts

Forecasting short-term growth in an uncertain environment is always a challenge. The aftermath of the EU referendum is a perfect example – and there is a divergence of opinion over the outlook.

As in past Commentaries, we report a central forecast but use estimated uncertainty bands to set out a likely range within which we predict Scottish GDP will lie. In our view, and in the current uncertain climate, it is this range that should be the central focus of discussion rather than specific point estimates.

In other words, it is entirely possible that the Scottish economy could grow close to its trend of 2% in 2017 and 2018 – as Chart 38 highlights – but our assessment is that the probability of that happening is lower than for our central projection.

The greatest judgement call concerns the timing of any Brexit induced impacts. At the time of writing, there are significant uncertainties not only in terms of the negotiated settlement but the extent of any transitional deal or when Article 50 is triggered.

Given the data this year so far, coupled with our emerging nowcasts, we have kept our forecast for 2016 relatively constant – up +0.1% to 1.0%.

#### The next 3 years - 2017, 2018 & 2019

Our central forecast is for growth to remain at broadly the same pace in 2017 – with growth of 1.1% (up on our July forecast of 0.5%). This is a revision of around +0.15% per quarter.

This, in part, reflects our expectation that the strength of the UK economy over the past year – and better forecast outlook – will exert a positive influence in the near term. We are also slightly less pessimistic in terms of the outlook for the North Sea than in July and believe that August's innovative funding scheme from the Bank of England will support lending into next year.

The prospects for a transition rather than 'cliffedge' Brexit also leads us – on balance – to predict a slightly better outlook for 2017 and 2018.

	2016	2017	2018	
GVA	-0.4	-0.8	-0.7	
Production	-0.4	-0.8	-0.7	
Construction	-0.2	-0.4	-0.4	
Services	-0.3	-0.7	-0.7	
	Source: Freeer of Allender Institute			

 Table 15: FAI revised forecast %-point change from pre 

 Referendum forecast by sector, 2016 to 2018

ource: Fraser of Allander Institute

**Chart 39:** Contribution to forecast – slowdown in investment and consumption but pick-up in net trade



Source: Fraser of Allander Institute

Table 16: FAI lab	our market forecast to 2019
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	2017	2018	2019
Employee Jobs	2,467,200	2,505,200	2,543,150
% employment growth over year	1.2	1.5	1.5
ILO unemployment	151,100	155,750	166,400
Rate (%) <sup>1</sup>	5.6	5.7	5.9

Source: Fraser of Allander Institute

Notes:

Absolute numbers are rounded to the nearest 50.

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

These upward revisions need to be put in context. Our pre-referendum forecasts were for growth in 2017 and 2018 of 1.9% and 2.0% respectively.

Our revised growth projections remain well below these levels. Compared to trend growth rates, annual growth of 1-11/2% is equivalent to a loss of around £5 billion by the end of 2019.

Growth across all sectors is likely to be relatively fragile. And output in particular quarters could be close to 0 - making a short technical recession possible. Construction will be particularly weak, in part due to its continued return to trend following strong growth in 2014-15.

On the components of demand, we expect the short-term uncertainty, financial instability, higher risk premiums and challenges in the housing market, to hit investment over the next three years. Consumption will likely start to weaken next year as higher inflation, combined with low earnings growth, feeds through to household spending.

Net exports will continue to benefit from the depreciation in the pound as will sectors such as tourism (though retail could be hit hard). Whether Scottish exporters are in the position of being able to take advantage of this competitive boost is open to question.

We expect unemployment to rise gradually toward 6%. There remains a degree of volatility in the labour market data which may materially impact on these forecasts.

Back in July we forecast unemployment could rise to 6.5% in 2016. Instead it stands at 4.7%. But this fall in unemployment is not from people finding work but from people moving into inactivity.

As discussed in our <u>Labour Market Trends</u> report, if the sharp rise in inactivity had instead translated into higher unemployment, *for the same level of employment,* Scotland's unemployment rate would now be around 6.3% - close to our July forecast.

To the extent that any of this rise in inactivity is reversed Scotland's unemployment rate could rise much more sharply than predicted.

#### Policy context

Later on this week, Scotland's new Finance Minister will set out his first Draft Budget – the first with Scotland's new income tax powers.

This follows major policy interventions by both the Bank of England and the UK Government.

The Bank's stimulus in August - which included a cut in interest rates, further Quantitative Easing and a scheme to boost cheap funding for businesses and households – was bolder than many had anticipated. It is likely that the Bank is near its limits in terms of the support it can provide, particularly with the likelihood of a sharp rise in inflation in the coming months.

In last month's Autumn Statement, the UK Government chose neither to inject a major stimulus into the economy nor to increase the pace of austerity.

The Chancellor's focus instead centred upon longer-term policies to boost productivity – including a new National Productivity Investment Fund which aims to add £23 billion of spending to housing, roads, digital infrastructure, and science and technology by 2021-22. The intention is to achieve a 'step-change' in productivity. Whether it is possible to achieve a step-change with investment equivalent to 0.25% of GDP remains to be seen.

The Scottish Government is likely to be under pressure to announce similar productivity enhancing initiatives in its Budget, particularly in the light of the weaker growth performance in Scotland over the past year.

But the Finance Secretary has little room to spare. As discussed in our <u>Scotland's Budget: 2016</u> report, major spending pressures in areas such as health, childcare and the public sector pay bill will constrain the resources at his disposal to boost the economy. Furthermore, recent challenges in education standards may mean that any money that can be freed up is targeted here rather than elsewhere. The Scottish Government's £500 million Growth Fund does provide an opportunity to support new private investment and the Budget should set out further detail on how it will operate. The reclassification of a number of major infrastructure projects – including the Aberdeen Western Periphery Route – as being 'on balance sheet' will however, hit levels of capital investment compared to original plans.

Overall, the Scottish Government is unlikely to announce any major departures from existing policies. With that in mind, it is absolutely vital that the government set out its multi-year spending plans as soon as possible. It is simply not credible to continue to rely on one-year settlements.

Which brings us to Brexit.

Much of the debate, thus far, has understandably been on quantifying the potential scale of the challenge. Our own modelling – which accounts for exports and imports changing and supply chain effects through the rest of the UK – estimates that output will be lower in the long-run.

Trade opens up businesses to new opportunities for exporting and investment; labour mobility boosts labour supply helping to increase productivity and address demographic challenges in countries – such as Scotland – with an ageing population; competition helps efficiency, product specialisation and growth; and financial integration deepens and broaden capital markets.

Where policy can now have an influence is on the scale of any impact, which, in turn, depends crucially upon the terms of the exit deal and what both the Scottish and UK Governments do to address the challenges that will then follow.

As we move closer to the UK's exit from the EU therefore, it is essential that discussions now focus on the practicalities of what Brexit might mean for businesses, sectors and individuals.

In our view, this should include -

- i. Understanding the trade-offs from the specific terms of the negotiated exit from the EU;
- ii. Identifying the sectors and areas of the economy – e.g. international investment, the labour market, regional growth etc. – most likely to be impacted by Brexit;
- The policy opportunities that may open up both at the Scottish and UK level – from no longer being bound by EU commitments and obligations; and,
- Reassessing existing policy priorities and commitments, and crucially the delivery of the government's Economic Strategy, in a world where Scotland is no longer part of the EU.

None of this will be easy. And even with strong policy responses and a good outcome in the negotiations, the economy will still face headwinds.

Whilst it is understandable that the debate thus far has focussed on the scale of the impact of Brexit, the political fall-out from the referendum campaign, and the potential constitutional implications both in Scotland and the UK, it is critically important that our policymakers now move quickly to find solutions and develop strategies to respond to the challenges (and new possibilities) that Brexit presents.

Here lies an opportunity, albeit one created out of difficulty rather than success. Many of the

challenges that Scotland will face in a world where the economic environment will – as a result of Brexit – be more growth-inhibiting rather than growth-supporting – have been around for decades.

We know that we must improve Scotland's export performance, boost levels of innovation in our economy (both in R&D and also in work environments), re-balance the industrial structure of our economy, focus on long-term value added rather than short-term profit, provide greater opportunities for all of Scotland to benefit from growth, and build an economy that tackles poverty and poor quality work.

Brexit will not make any of this easier, far from it. But with the right ambition and focus within policy circles there is an opportunity to use the challenge thrown down by Brexit to take a fresh look and, perhaps undertake a more honest assessment, at how best to address Scotland's longer term economic challenges (and to take advantage of new opportunities that will emerge) in the years ahead.

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

www.fraserofallander.org

## **Economic perspectives**

### Towards a 'Scandinavian model' for Scotland

Tobias Emonts-Holley, Alastair Greig, Patrizio Lecca, Katerina Lisenkova, Peter G McGregor. J Kim Swales

#### 1. Introduction and background

The fiscal powers of the Scottish Government have recently been significantly enhanced as a consequence of the implementation of the Scotland Act 2012, which required the Parliament to set a Scottish Rate of Income Tax (SRIT) from April 2016. The SRIT can vary from that in the rest of the UK by up to 10p in the pound. More extensive powers over income tax will come into effect in April 2017 as a consequence of the Scotland Act 2016, which sought to implement the proposals of the Smith Commission (2014). The Scottish Government will then gain the power to set income tax rates and thresholds (but not personal allowances). All income tax receipts on wage income collected in Scotland will be received by the Scottish Government, with a corresponding adjustment in the block grant, as detailed in the new Fiscal Framework (2016). These changes will make Scotland one of the most powerful devolved governments in the world in terms of the proportion of public spending and tax revenues under its control, although there of course remains a debate about how effective these new powers are and whether or not they go far enough.

While there has been considerable debate about which tax powers should be devolved, there has been much less discussion on what should be done with the powers once they are devolved. Differences in income tax policy among Scottish political parties did emerge during the recent Scottish Parliament elections. The Scottish Government has, for example, decided not to fully emulate the UK Government's recent decision to increase the threshold for higher rate tax payers, which will create the first income tax differential between Scotland and the rest of the UK (RUK).

The recent increase in the degree of fiscal autonomy is of a scale that could allow for more radical change in the structure of the Scottish economy and the nature of Scottish society if so desired. The current Scottish Government seems likely to continue with gradual changes in tax policy at least in the short-run. However, a number of prominent SNP members have argued for a bolder approach<sup>1</sup>. It seems likely that over time there will be growing pressure on future Scottish administrations to consider more distinct income tax policies, although they will remain nervous about the possible reaction of Scottish taxpayers.

The "Scandinavian model" has often been held up as one that Scotland, if it had the necessary fiscal powers, might wish to emulate, although the emphasis has typically been on the high level (and quality) of public services rather than the associated high level of taxation that characterizes the Scandinavian economies. In fact, even the income tax powers devolved in April 2016, as a consequence of the Scotland Act 2012, would allow the Scottish Government to raise average income tax rates to Scandinavian levels and use the revenues to implement a substantial increase in public spending. This paper explores the

<sup>&</sup>lt;sup>1</sup> For example MacAskill (2016) argues that "Rather than running away from this, the Scottish Government should embrace it. There's a better way to run a society: pay in collectively for greater efficiency and availability for all; show the sort of society we could really be. It's the price of being Scottish."

likely consequences of such a shift as a contribution to our understanding of the likely impact of Scotland pursuing a differentiated income tax policy from that in RUK. It will be critical for any future Scottish Government that might contemplate the use of significant differential income taxes to carefully assess the likely implications for the Scottish economy and society.

The next section begins by identifying some key characteristics of the Scandinavian economies, and how income tax in Scotland would need to adjust in order to move toward a more Scandinavian taxation regime. This is followed by a discussion of the results simulating the impact of a substantial increase in income taxation using the Fraser of Allander Institute's Computational General Equilibrium (CGE) model.

#### 2. The "Scandinavian model"

Keating and Harvey (2014) identify two ideal-type contrasting strategies for dealing with globalization and other changes: market liberalism, associated inter alia with the Baltic States, and the "social investment state, in which public expenditure is seen as a contribution to the productive economy rather than a drain on it" (op. cit. p12), something associated with the Scandinavian economies. In this model, the role of the state is much more prominent and instrumental than in other Western economies.

Apart from the higher tax and spend dimension of the Scandinavian economies, there are also important institutional differences from the UK, which are crucial to the way that these states operate. For example, the "tripartite bargaining" system in the Scandinavian economies is characterised by national wage negotiations which include trade unions, employers' associations and the government. Further, this system is subject to an annual bargaining cycle, which is believed to reduce tensions in the negotiations that are commonly observed in other European economies, for example in Germany (Keating & Harvey, 2014; Financial Times, 2015). A second institutional difference is reflected in the principle of "universalism". This concept embraces all citizens such that the middle-class is included in the benefit system. Through the inclusion of most of society in the social system, solidarity is better ensured, and provides political support for the system to thrive (Keating & Harvey, 2014).

Acemoglu *et al* (2012) argue that the success of the Scandinavian model is attributable to "cuddly capitalism", which free rides on a "cutthroat capitalism" (such as that experienced in the US) and helps to push out the world's technology frontier. Barth et al (2014) argue that the success of the Scandinavian economies in terms of economic growth, high productivity, low wage dispersion/inequality and a big welfare state reflects what is, in effect, a two-level bargaining system. A local system supplements the national system described above and strong trade unions both suppress wage dispersion and enhance local productivity. The latter is generated through inducing greater worker effort and higher capital investment. Furthermore, the wage compression and productivity enhancement encourage political support for welfare spending.

It is clear that simply raising income taxes to Scandinavian levels and using the resultant revenues to increase current government spending is insufficient to emulate the "Scandinavian model"; institutional differences are also central. The analysis that follows here focusses solely on the valuation of government expenditures by workers in the Scottish labour market and the effect that has on Scotland's macroeconomic performance.

#### 3. Towards a Scandinavian model through an income tax adjustment

So what would be the likely consequences of a Scottish Government moving towards the Scandinavian model by significantly raising the income tax rate and recycling the revenues to expand current government expenditure? For simplicity, it is assumed that the increase in government expenditure is entirely a demand-side stimulus in current expenditure, with no significant changes to the welfare system or any immediate supply-side impact beyond the creation of a local amenity. In principle, only allowing Scotland to move toward a "Scandinavian model" through adjustments in the Scottish income tax rate, rather than spreading the burden across a range of taxes, is problematic. However, Kleven (2014) does suggest that the tax burden in Denmark, Sweden and Norway disproportionately falls on personal income taxes. This implies that the Scottish Government would likely have to significantly increase labour taxes, including income tax, to emulate the Scandinavian case. Table 1 provides 2013 OECD statistics on the total tax wedge<sup>2</sup> as a proportion of total labour costs for an average, unmarried Scandinavian and British worker with no children.

	% of average labour costs	
Denmark	36.4%	
Finland	43.1%	
Iceland	34.1%	
Norway	37.3%	
Sweden	43.0%	
United Kingdom	31.4%	
Scandinavian Average	38.8%	

Table 1: Average personal income taxes as a proportion of labour costs, 2013

#### Source: OECD

We now consider the likely impact of a fiscal expansion in Scotland, where only changes in income tax revenues are recycled to augment current government expenditure. In conceptually similar balanced budget fiscal expansions, two countervailing forces are generated (Lecca et al, 2014).

There will be a net stimulus to demand: a balanced budget expansion essentially shifts spending from private to public consumption. However, the negative impact of the fall in private consumption due to the rise in income taxation, is more than offset by the positive stimulus generated by the expansion in government expenditure, since the latter is less import-intensive.

The second is a negative competitiveness effect: if taxes rise workers feel worse off and attempt to restore their real consumption wages through increased wage claims. The nature and scale of the competitiveness effect depends critically on migration and wage bargaining behaviour.

<sup>&</sup>lt;sup>2</sup> The OECD defines the total tax wedge as "The combined central and sub-central government income tax plus employee and employer social security contribution taxes, as a percentage of labour costs defined as gross wage earnings plus employer social security contributions. The tax wedge includes cash transfers." http://stats.oecd.org/Index.aspx?DataSetCode=TABLE\_I5

We consider three alternative wage bargaining regimes. In the *Conventional Macro* case, neither local residents nor potential migrants place any value on the increase in public consumption following the fiscal expansion and standard specifications of the migration function and bargained real wage curves apply, with after tax real consumption wages governing both migration and bargaining decisions. This means that at any given employment rate, the nominal wage will have to rise by the amount required to offset the rise in the tax rate and the increase in the CPI to ensure zero net migration.

Also in this case, workers bargain for a net of tax real wage, and there is upward pressure on wages and prices that creates an adverse competitiveness effect, as workers seek to restore their real take home pay. The more open the economy, in terms of share of imports and responsiveness to relative price changes, the greater the adverse demand effects associated with the loss of competitiveness. Given that migration is assumed to respond only to the net of tax real wage and unemployment differentials in this case, a predominant adverse competitiveness effect means that, real post tax wages initially fall, unemployment rises and net out-migration occurs until the real wage and unemployment rates are restored (at lower levels of population and employment).

In microeconomic models of fiscal federalism (e.g. Tiebout, 1956), potential migrants value the increase in public services provided by the relevant authority and factor that into their migration decisions. This is the basis of the *Conventional Micro* model, in which we assume that *migrants* are motivated by their 'social wage', which we take to be unaffected by the balanced-budget fiscal expansion: migrants value the increased public spending equally to the reduced private wage resulting from the income tax increase. However, this valuation is not reflected in regional wage bargaining. The long-run equilibrium where the nominal wage increases (but not sufficiently to restore the real wage), and the employment (unemployment) rate falls (rises). While the unemployment rate rises in this case, the extent of the adverse supply shock is less than under the Conventional Macroeconomic case, with nominal wages rising less, so that employment and GDP effects are improved and any induced net outmigration reduced.

Finally, consider the *Social Wage* case in which the increase in public consumption is valued equally to the loss in private consumption. In the long-run the nominal wage and employment rate are unaffected. This reflects the fact that workers value the increase in government consumption as much as their foregone private consumption, so that they feel as well-off after the change as they did before. Accordingly, workers do not push to restore their take-home wage following the policy change, and the adverse competitiveness effect is eliminated completely. In this case, therefore, the beneficial net demand stimulus associated with the fiscal expansion predominates, and output and employment expand, in a manner similar to that envisaged in the simple Keynesian balanced budget multiplier. However, the whole of the increase in tax (and induced effects on the CPI) is reflected in a significant reduction in the post-tax wage.

#### 4. Simulation results

We run three simulations using the Fraser of Allander Institute's AMOS (A Macro-micro model Of Scotland) model. This is a regional CGE model (Lecca et al 2014, 2016) calibrated on the 2013 Scottish

SAM (Emonts-Holley et al, 2014). We simulate the impact of a balanced budget fiscal expansion that raises the average Scottish income tax rate to bring its tax wedge into line with the Scandinavian average, from UK levels reported in Table 1. This would require the Scottish Government to implement a 7.4 percentage point increase in the average income tax rate (or a 42% increase). The first column of Table 2 reports results for the Conventional Macro model. In this case, neither potential migrants nor workers value public consumption. Accordingly, migrants respond to the net of tax real wage, as do workers who seek to restore the initial value of their real take home pay (and, in the long-run succeed in doing so). Therefore there is no change in the post-tax real wage or in the unemployment rate in the long run. While public expenditure rises by 11.5%, the long run impact of the fiscal expansion is contractionary, with a fall of 6.5% in Gross Regional Product (GRP) and around 7% in employment. It is clear that, for Scotland, the adverse competitiveness effect of the fiscal stimulus dominates the net stimulus to demand, reflecting the degree of openness of the Scottish economy, with exports to both RUK and ROW falling by over 6%.

	Conventional Macro	Conventional Micro	Social Wage
Change in Income Tax Rate	7.4 рр	7.4 рр	7.4 рр
GRP Income measure	-6.54%	-5.90%	1.93%
Consumer Price Index	3.93%	3.62%	0.00%
Unemployment Rate	0.00%	7.81%	0.00%
Total Employment	-6.86%	-6.13%	2.97%
Nominal Gross Wage	15.87%	14.55%	0.00%
Nominal Wage after Tax	3.93%	2.75%	-10.31%
Real Gross Wage	11.49%	10.55%	0.00%
Real Wage after Tax	0.00%	-0.85%	-10.31%
Labour Income	7.92%	7.53%	2.97%
Capital Income	-2.90%	-2.63%	0.54%
Labour Force	-6.86%	-5.66%	2.97%
Households Consumption	-3.99%	-3.99%	-3.90%
Government Consumption	11.47%	11.87%	16.75%
RUK. Export	-6.04%	-5.59%	0.00%
ROW Export	-6.19%	-5.73%	0.00%

Table 2: The long-run impact of a 42% increase in the average income tax rate

The adverse competitiveness effect is apparent in the substantial rise in the nominal gross wage (of 16%) and the CPI (around 4%), as workers successfully restore the initial value of their real take home pay. Due to the zero net migration condition, which is binding over the long run, the unemployment and real wage rates are ultimately restored to their initial values through a process of net outmigration. The rise in the average rate of income tax naturally lowers household consumption, in this case by 4% in the long-run.

The second column in Table 2 reports the long-run results for the Conventional Micro model. Here potential migrants value the increase in public consumption, but workers do not moderate their wage claims accordingly. Typically, Conventional Micro models abstract from the presence of imperfect competition in labour markets, so that the improved amenity is an externality from the individual worker's perspective. The fiscal expansion results in a rise in public consumption of nearly 11.5% in the long run,

but GRP falls by 6%, and employment by 6%. Given the predominant adverse competitiveness effect observed in the Conventional Macro model, the scale of the resultant contraction in this case is less. As before, in the short-run real wages fall and the unemployment rate rises, inducing net outmigration. However, the scale of the response is now less than before since migrants are, in effect, motivated by the Social Wage in Scotland, not by the net of tax wage. Accordingly, migration does not continue until real net of tax wages and unemployment rates return to their initial levels. While workers continue to attempt to restore their real wage, this increases the unemployment rate and lowers their bargaining power. A lower real take home wage rate is now compatible with the zero net migration equilibrium, given that potential migrants value the higher Social Wage in Scotland.

Workers are in this case unable to restore fully their net take home pay, although the pressure on wages remains significant, with the nominal gross wage rising by 14.5%. Essentially, labour supply remains higher in this scenario than in the Conventional Macro case because migrants are less willing to move out of Scotland at any given net of tax real wage, and so the upward pressure on the real wage due to outmigration is less in this case. Consequently, the change in the unemployment rate is also positive in the long run (it increases by 8%).

Overall, the aggregate results of the Conventional Macro and Micro models are very similar, reflecting the predominance of adverse competitiveness effects in both cases, although the behaviour of the real wage and unemployment rates differs, reflecting the different models of migration embedded within them. However, the results of the Social Wage model, summarised in the last column of Table 2, are very different from both Conventional models. In this case, workers do not bargain to restore their take-home wage, since the increase in government expenditure compensates them for the reduction in t pay and nor do migrants require compensation for lower pay. Ultimately, neither the nominal wage nor the employment (or unemployment) rate change. However, we know that in this case there is no adverse supply effect, and so the (net) stimulus to demand predominates. Here the balanced budget fiscal expansion produces a rise of 17% in government consumption in the long run and generates a rise in GRP of around 2% and in employment of nearly 3%.

Since workers do not seek to restore their net take home pay there is no upward pressure on the nominal wage or the CPI in the long run. The real wage after tax therefore experiences a substantial fall of approximately 10% in the long-run. Due to this fall and the tax hike, household consumption declines by 4% in this case. The shift from private consumption to government demand transfers expenditure to labour intensive sectors, such as education and health, which accounts for the rise in employment exceeding that in GRP). Exports are unchanged in the long-run as the competitiveness of the region is ultimately unaffected.

The social wage model effectively eliminates any adverse supply shock associated with the fiscal stimulus, by preventing any upward pressure on the nominal wage. However, this implies a willingness by workers to accept a substantial cut, of nearly 10%, in their real take home pay. In the long-run this model operates "as if" it is an input-output system, in which the supply side is entirely passive and wages and prices are unaffected. We obtain results very similar to simple Keynesian balanced-budget multipliers, which are positive, although here both population and capital stocks are endogenous. It is clear that the overall impact of this balanced budget fiscal expansion is crucially dependent on the public's valuation of the amenity associated with the greater public expenditure, and especially to the extent to which this is reflected in workers' wage bargaining behaviour.

#### 5. Conclusions

Scotland is in the process of acquiring very substantial powers over income tax, extending well beyond the ability to change the Standard Variable Rate by plus or minus three pence in the pound, which accompanied the establishment of the Scottish Parliament in 1999. Currently, the Scottish Government has to set a Scottish Rate of Income Tax (SRIT), and its powers are due to be significantly enhanced when the provisions of the Scotland Act (2016) are implemented from 2017. Of course, it would always be possible to set a SRIT to ensure that, overall, income tax rates are equal to those in RUK so as to maintain the status quo, and this was indeed what happened when the rate was first set in 2016. However, differences in tax policies began to emerge in the 2016 Scottish Parliamentary elections; now only the Conservatives remain committed to the maintenance of income tax parity with the rest of the UK.

This paper explores the likely impact of a radical shift in the direction of the Scandinavian model, characterised by high taxes and high public spending, a shift made feasible by the enhanced fiscal autonomy that Scotland now enjoys. The main message from our analysis is that the nature of the wage bargaining system will likely have a crucial determining role in the macroeconomic outcome of a significant hike in income taxes and public spending. If the public amenity created by higher public spending is not valued by Scottish workers or migrants to Scotland, and bargaining is not restricted by weak labour market conditions, the openness of the Scottish economy is likely to result in a fiscal expansion having contractionary aggregate effects. If, on the other hand, the higher public spending is valued as much as the forgone private consumption, and this is reflected in workers effectively bargaining over the Social Wage, there is no adverse competitiveness effect, and the result is a modest expansion in economic activity.

The Social Wage outcome is, however, necessarily associated with a significant fall in real take home pay, and the key question is how likely it is that Scottish workers would be willing to accept that in return for the maintenance or enhancement of public services. The current wage bargaining system in Scotland seems unlikely to deliver Social Wage outcomes, at least over the longer term. Accordingly, our results suggest that, if a move towards Scandinavian levels of public services and taxes was judged to be appropriate, it would be essential to seek reform of the bargaining system if adverse macroeconomic consequences were to be avoided. Alternatively, some form of incomes policy linked to the provision of public services might be pursued.

Of course, the case we consider here – of an immediate hike in taxes to Scandinavian levels - is unrealistic in that any move in that direction would likely be much more cautious and gradual. But it seems doubtful that ad hoc agreements linking moderated wage responses to incremental increases in public spending for particular purposes would be feasible within Scotland's labour market. However, it seems likely that trade union / workers' attitudes to increased public spending will depend on the composition of that spending. US evidence suggests that spending on health and education has a positive effect, but spending on welfare has a negative impact on working migrants.

While the Scandinavian model has often been held up as an example that Scotland might wish to emulate, few have advocated the kind of radical change considered in this paper. However, public attitudes may shift toward more radical taxation policies given increasing pressure on the budgets available for public spending. In any event, it will remain important for Scottish governments of whatever hue to understand the likely effects of any deviation from income tax parity with RUK. Without such an understanding there can be no appreciation of the potential costs and benefits of maintaining the status quo, as against alternative policies. While we have begun to address this issue here, there are a number of aspects that need to be more thoroughly explored in future research, using more realistic scenarios.

We have considered only one, radical, option facing the Scottish Government from April 2016. It would be useful to investigate the use of the new tax powers to move towards the low tax/ low public spending associated with the Baltic economies, although this is a shift that few in Scotland have advocated. Here whether increased competitiveness effects are likely to stimulate the economy will again depend on the valuation of any change in public spending, and the extent to which that is reflected in the wage bargaining system.

There is also a need to explore the valuation of public spending more systematically, in particular its dependence on the composition of government spending, and on the source of that spending, in terms of the level of government. There is requirement for a better understanding of any immediate supply-side consequences of changes in government spending. This is perhaps most obviously relevant when we consider government capital expenditure, but would also apply to those aspects of current government spending, which in fact represent investment in human capital and so would also be expected to have important supply-side impacts (e.g. Hermannsson et al, 2014). The presence of such a stimulus introduces a beneficial supply-side stimulus that tends to counter the negative competitiveness effects, but the former takes time to emerge. Such changes might therefore continue to have adverse macroeconomic consequences even in the medium run in the absence of Social Wage bargaining (Lecca et al, 2015) or sources of nominal wage inflexibility. This timing of effects could lead policy makers to lay undue emphasis on the short-to-medium term outcomes and this may act to inhibit investments in physical and human capital that are worthwhile from a longer term perspective.

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#### References

Acemoglu, D., Robinson, J. A. and T. Verdier (2012) "Can't we all be more like Scandinavians? Asymmetric growth and institutions in an interdependent world", NBER Working Paper Series, Working Paper 18441. http://www.nbber.org/papers/w18441

Barth, E., Moene, K., & Willumsen, F. (2014). The Scandinavian model - An Interpretation. Journal of Public Economics, vol. 117, pp 60-72.

Emonts-Holley, T., Ross, A., & Swales, K. (2014). A Social Accounting Matrix for Scotland. Fraser of Allander Institute Economic Commentary, 38(1), 84-93.

Financial Times (2015). Germany's biggest union strikes inflation-busting pay deal. Available from http://www.ft.com/cms/s/0/2df3b3dc-bc1f-11e4-a6d7-00144feab7de.html#axzz3YVassvip/

Fiscal Framework (2016)

Hermannsson, K, Lecca, P, Lisenkova, K, McGregor, P G and J K Swales (2014) "The Regional Economic Impact of more Graduates in the Labour Market: A "Micro-to-Macro" Analysis for Scotland" Environment and Planning A, Vol. 42, no. 2, pp471-487.

Keating, M. J., & Harvey, M. (2014). Small Nations in a Big World: What Scotland Can Learn, Luath Press.

Kleven, H.J. (2014). How can Scandinavian economies tax so much? Journal of Economic Perspectives. Vol 28 Number 4. Pages 77-98.

Lecca, P., McGregor, P. G., Swales, J. K., & Yin, Y. P. (2014). Balanced budget multipliers for small open regions within a federal system: evidence from the Scottish variable rate of income tax. Journal of Regional Science, vol. 54, 402-421.

Lecca, P., McGregor, P. G., and Swales, J. K. (2015): Scotland -no detriment, no danger; the interregional impact of a balanced budget regional fiscal expansion. IPPI Discussion Paper. http://strathprints.strath.ac.uk/55430/

Lecca, P., McGregor, P. G., and Swales, J. K., (2016) Taxes and Spending, chapter 2 in Keating, M. (ed) A Wealthier, Fairer Scotland (Edinburgh University Press; Edinburgh).

Macaskill, K. (2016) Price of being Scottish that is well worth paying for all of us. The Herald, p13.

The Smith Commission. (2014). Report of the Smith Commission for further devolution of powers to the Scottish Parliament. Available from https://www.smith-commission.scot/wp-content/uploads/2014/11/The\_Smith\_Commission\_Report-1.pdf

The UK Parliament (2012). Scotland Act 2012. Available from http://www.legislation.gov.uk/ukpga/2012/11/pdfs/ukpga\_20120011\_en.pdf

Tiebout, C. (1956), "A Pure Theory of Local Expenditure", Journal of Political Economy, vol. 64, pp. 416-214.

# Fiscal devolution and Scotland's cities: 'double devolution' and optimising urban investment

Prof Greg Clark, Jonathan Couturier, Emily Moir and Dr Tim Moonen

#### Abstract

Scotland's cities are the powerhouses of the Scottish economy. To be successful and provide the employment, housing and social needs of their citizens, they require sustainable and sufficient resources to enable them to invest in the infrastructure – transport, environment, employment and skills – that supports success and adaptation. This article outlines examples, drawn from OECD countries' experiences, that provide a wider canvass to think about future reforms for Scotland's cities, than do the City Deals architecture of applied to English cities.

Key words: Cities, Scotland, fiscal devolution, OECD city reforms

#### 1. Introduction - Scotland, cities, investment and prosperity

Cities around the world, including in Scotland, demonstrate a strong and enduring link between the rate of investment and urban prosperity. The scope of a city to invest in productive infrastructure, skills, land redevelopment, and R&D is essential to its ability not only to deliver services but also to shape and manage population and economic change. This challenge is especially important given the growing role of cities in national economies, including Scotland. The seven largest cities in Scotland currently generate around 60% of national GVA, 54% of the nation's jobs, and post and continue to absorb the majority of population growth.

At key points in their development, cities are exposed to gaps between their investment needs and the capital they generate or attract. Cities all over the world have seen this gap grow in the aftermath of the global financial crisis. When an investment deficit like this persists over several cycles, cities can find themselves stuck in what we might call a 'low-investment, low-return' equilibrium that erodes quality of life and productivity, and can 'lock in' a negative path that is difficult to correct (think of Detroit, Rome, or Athens). This then further constrains resources available from revenues or transfers to invest either in the infrastructure that underpins long-term prosperity, or in the projects that bring about necessary change.<sup>3</sup>

One result of this investment deficit is the increasing attention given to creative fiscal reforms and financing solutions that enhance the self-funding capacity of cities, local governments and metropolitan areas. The OECD observes a strong correlation between fiscal decentralisation, prosperity and productivity, such that doubling the sub-national share of public spending is associated with an average 3% increase in GDP per capita. If sub-national authorities have more control over the finances, this increases the rate of return on that capital.

There is also mounting evidence that fiscal devolution - or financial empowerment of cities - large and small, rich and poor - creates an incentive framework that ultimately improves the economy, productivity

<sup>&</sup>lt;sup>3</sup> www.scottishcities.org.uk/site/assets/files/1221/foa\_-\_scotland\_27s\_economic\_powerhouses\_-\_28-10-15\_1.pdf
and service standards.<sup>4</sup> Lower tiers of government, it seems, work harder to improve their performance when they are more dependent on the resources that they generate directly. Across the world cities are negotiating with higher tiers of government for the reforms that will recognise their investment requirements and enable them to retain and capture more of the economic growth they generate.

	Sub-Central Tax Revenue as % of total revenue*	Inter-governmental transfer revenue as % of total revenue**	Region / Local Tax revenue as % of total revenue°
Austria	Region: 1.6% Local: 3.2%	Region: 82.0% Local: 62.3%	Region: 46.5% Local: 66.0%
Belgium	Region: 5.3% Local: 5.0%	Region: 64.5% Local: 47.2%	Region: 15.5% Local: 31.4%
Denmark	Local: 26.7%	Local: 58.8%	Local: 33.8%
Finland	Local: 23.2%	Local: 29.7%	Local: 45.4%
Norway	Local: 12.1%	Local: 45.0%	Local: 37.8%
United Kingdom	Local: 4.8%	Local: 68.1%	Local: 13.3%

Table 1: Fiscal empowerment of sub-national tiers of government in selected OECD countries<sup>5</sup>

\*2011 figures; \*\* 2014 figures; 2012 figures

Source: OECD Fiscal Decentralisation Database.

This paper examines the potential benefits for Scotland's cities of the Scottish Government pursuing an enhanced model of fiscal or 'double devolution' to Scotland's cities as they enter a new cycle of globallyoriented development in a post-Brexit era. There are many examples and models from which they can draw inspiration and practical lessons.

One possibility is for Scotland's cities and Scottish Parliament to look to England where a distinctive 'earned autonomy' model of devolution is unfolding through the City Deals process.

But, there is also a great deal to be learnt from the experience of cities elsewhere, especially in countries (more) similar in size to Scotland such as Belgium, Chile, Finland and New Zealand. In absorbing some of their important lessons, this paper places the current opportunity for Scotland's cities in a broader context.

# 2. Scotland's cities – fiscal or "double devolution"?

From the perspective of external and comparative observers, it is clear that Scotland's cities have achieved a great deal since the painful and protracted process of de-industrialisation and wider economic change triggered by globalisation began over 50 years ago. The extent of physical, economic,

https://feb.kuleuven.be/drc/Economics/misc/eibtrans/files/federalism-infrastructure-presentacio-soleolle.pdf http://ftp.aefweb.net/WorkingPapers/w592.pdf; www.iadb.org/en/news/news-releases/2016-05-23/fiscaldecentralization-in-latin-america,11467.html; www.adb.org/sites/default/files/publication/28927/impact-fiscaldecentralization.pdf

<sup>&</sup>lt;sup>4</sup> http://people.uta.fi/~atmaso/verkkokirjasto/Second\_tier\_cities\_policy.pdf; www.slu.cz/opf/cz/informace/acta-

academica-karviniensia/casopisy-aak/aak-rocnik-2015/docs-2-2015/Szarowska.pdf;

<sup>&</sup>lt;sup>5</sup> www.oecd.org/ctp/federalism/oecdfiscaldecentralisationdatabase.htm#A\_1

demographic and cultural change in Scotland's cities is profound. In many cases the transformation has given confidence not only to the larger cities of Edinburgh and Glasgow, but also to Aberdeen, Dundee, Inverness, Perth and Stirling and others, to explore new opportunities, and now begin to advocate for new tools to manage their urban and metropolitan growth.<sup>6</sup>

It is worth recalling that there have been at least ten important dimensions to this transformation of Scotland's cities from an 'outside in' perspective:

i. Renewal and modernisation of physical fabric. For more than 30 years Scotland's cities have successfully reclaimed and redeveloped land in and around their city centres in order to improve their commercial and tourist attractiveness. Physical regeneration has become a centrepiece of wider city strategies, and continues to account for at least £3 billion of investment across Dundee, Edinburgh and Glasgow alone.

One of the most important examples is, of course, the regeneration of the River Clyde corridor and Glasgow, which has seen the greatest concentration in urban investment in Scotland, ranging from major projects such as the Scottish Exhibition and Conference Centre (and SSE Hydro Arena), Glasgow Science Centre, BBC Scotland, STV to the Emirates Arena and athlete's village for the 2014 Glasgow Commonwealth Games. In addition, the creation of Glasgow International Financial Services District (IFSD) at the Broomielaw is testament to the successful investment in new sectors to diversify the Glasgow economy.

Aberdeen, Dundee and Edinburgh, among others, continue to regenerate strategically located but underused land, including waterfronts (with a £1bn project in Dundee), bus depots, brewery sites and gas works, that have all significantly improved the appetite for city centre living and working.<sup>7</sup>

ii. More diversified and innovative economies. Upgrade of the physical fabric has enabled Scotland's cities to attract and nurture new sectors that are more productive and resilient. The International Financial Services District (IFSD) has helped Glasgow to provide the floor plates and Class A space necessary to attract and accommodate a range of financial companies, while spending on R&D activities in the city has more than doubled since 2009. In Dundee, District 10 now sustains creative industries in place of much of the previous maritime activities. Aberdeen's professional, scientific and technical sectors have more than tripled their output since 1998 as they feed off the success of the oil and gas sector.

Across most of Scotland's major cities, the share of output of ICT, professional and advanced services, business support, real estate, and life sciences have grown by 70%-200% over the past 20 years - supported by outstanding universites. Scotland's cities have launched over 310 'spin-out' and 259 start-up companies since 2000, more than any other UK region, with especially high growth in Aberdeen. Overall,

<sup>&</sup>lt;sup>6</sup> http://strathprints.strath.ac.uk/56260/

<sup>&</sup>lt;sup>7</sup> www.glasgow.gov.uk/CHttpHandler.ashx?id=17548&p=0; www.glasgowcanal.co.uk/about-the-canal;

www.glasgow.gov.uk/index.aspx?articleid=16166; http://strathprints.strath.ac.uk/56260/; www.bbc.co.uk/news/ukscotland-scotland-business-37213627; www.theguardian.com/uk-news/2014/jul/20/commonwealth-games-glasgowregeneration; www.ft.com/cms/s/0/ef11690e-3075-11e5-91ac-a5e17d9b4cff.html; www.dundeewaterfront.com/;

www.Scotland'spolicynow.co.uk/article/dundee; www.budgepr.com/LatestNews/NewsArticleTemplate/tabid/90/itemid/44/amid/516/waterfront-regeneration-adds-billions-

www.budgepr.com/LatestNews/NewsArticleTemplate/tabid/90/itemid/44/amid/516/waterfront-regeneration-adds-billionsto-the-Scotland's-economy.aspx

GVA growth in many of Scotland's cities has outperformed that of their UK counterparts outwith of London.<sup>8</sup>

- iii. New connective infrastructure. Neighbourhood revitalisation has been accompanied by sustained infrastructure investment that has seen Edinburgh create its first tram line, the modernisation of the Glasgow Subway, and Aberdeen will benefit from near £1 billion investment in road, rail and education infrastructure in recent years. The European Investment Bank (EIB) has also been a major investor in Scotland's cities, funding universities (eg The Technology & Innovation Centre (TIC) at the University of Strathclyde), energy infrastructure, and transport projects (e.g. a new deep water port in Aberdeen). Investment in smart cities and digital projects has also picked up, following the Scotland's Government's digital strategy.<sup>9</sup>
- iv. Strong business and civic leadership networks. The wider system of leadership in Scotland's cities has evolved to become professional and effective advocates for their cities. Glasgow Economic Leadership has brought together leaders from the business, public and academic sectors and was instrumental in backing the city's City Deal ambitions and sponsoring the city's new Economic Strategy. The Edinburgh Business Forum (formerly Edinburgh Business Assembly), the Glasgow Chamber of Commerce and Aberdeen & Grampian Chamber of Commerce have become active partners in city governance.<sup>10</sup> In 2011, the Scottish Cities Alliance was set up as an investment coordination and promotion agency, collaborating with Scotland's seven cities and the Scottish Government. This more distributed model of city governance has increased the speed and efficacy with which Scotland's cities address their immediate and longer-run challenges.
- v. Improved skills. The economic transition of Scotland's cities has been accompanied by a sharp increase in workforce skills. Between 2004 and 2014, Glasgow, Edinburgh and Aberdeen have seen between 10% and 13% increases in their working age population with qualifications at (S)NVQ 4 and above faster than most UK's core cities, save London. The past decade has also seen an impressive 15-18% increase in human capital working in science and technology sectors across Edinburgh, Aberdeen and Glasgow. The latter now has over 135,000 students, five higher education institutions and three super colleges, while Dundee has the highest student to population ratio in Scotland. Based on international rankings, the university system across Scotland's leading seven cities is one of the strongest in any small nation in the world.<sup>11</sup>
- vi. Increased business friendliness and business confidence. City indices data indicate that Scotland's cities have become highly regarded for their investment openness, business

<sup>&</sup>lt;sup>8</sup> http://labs.lsecities.net/eumm/m/metromonitor#7/55.634/-3.214;

www.dundeewaterfront.com/zones/seabraes/district10; www.scottishcities.org.uk/site/assets/files/1221/foa\_-\_scotland\_27s\_economic\_powerhouses\_-\_28-10-15\_1.pdf; www.centreforcities.org/data-tool/

<sup>&</sup>lt;sup>9</sup> http://news.scotland.gov.uk/News/-254-million-boost-to-Aberdeen-21f0.aspx; www.Scotland'scities.org/smartcities/; www.eib.org/infocentre/press/releases/all/2016/2016-150-eib-agrees-new-investment-totalling-eur-7-4-billion-including-eur-3-billion-for-clean-transport-energy-smes-and-innovation-under-investment-plan-for-europe.htm; www.spt.co.uk/subway/modernisation/; www.scdi.org.uk/policy/projects

<sup>&</sup>lt;sup>10</sup> http://glasgoweconomicleadership.com/overview/glasgow-economic-commission/; http://investglasgow.com/; www.marketingedinburgh.org/about-us/; www.ed.ac.uk/news/2016/eib-230216; www.edinburghbusinessforum.co.uk/ ; www.eib.org/infocentre/press/releases/all/2016/2016-049-eib-to-outline-new-innovation-financing-for-Scotland'scompanies-and-announce-record-university-investment.htm

<sup>&</sup>lt;sup>11</sup> www.scottishcities.org.uk/site/assets/files/1223/city\_key\_facts\_-\_march\_2016.pdf; Times Higher Education, Shanghai Jiao Tong and QS university rankings 2016.

friendliness and the strength of their foreign investment strategies since the financial crisis. Scotland's three largest cities outperform their size to regularly appear in assessments of the top European cities for overall investment prospects. Aberdeen in particular has surged since 2011 to join the overall European top 25, while Edinburgh and Glasgow are noted for their support to businesses to set up and expand, and a 'can-do' leadership that regards business as a trusted partner.<sup>12</sup>

- vii. New governance ethos, partnerships and alliances. Scotland's cities have increased their propensity to work horizontally with other municipalities in their wider region, and with other parties such as infrastructure providers, universities and trade unions. Scotland's city leaders have become more recognised for their vision and professionalism, while the formulation of longer-term, multi-sector and multi-cycle plans in cities such as Glasgow, Dundee and Edinburgh marks a step up in strategic thinking and partnership-building.<sup>13</sup>
- viii. **Proven hosting of catalytic events.** Confirmed by Glasgow's hosting of the Commonwealth Games in 2014, and the annual Edinburgh Festivals, Scotland's cities are now established as strong event destinations in Europe. The most recent data shows that both Glasgow and Aberdeen have seen an increase in the number of rotating international meetings and events since 2012. Glasgow in particular has broken into the global top 50 and the Hydro Arena is now a Global Top 3 arena. And Edinburgh is now among the top 35 meetings destination cities in Europe.<sup>14</sup>
- ix. Improved city promotion and visibility. The international recognition of Scotland's cities has soared in recent years, with tourist growth comfortably outpacing that of English cities (bar London). Edinburgh hosted over 1m international visitors in 2015, for instance, an 11% increase on the previous year. Glasgow saw a nearly 16% increase while Scotland's cities make up three of the UK's top 10 visitor destinations. Edinburgh is now in the global top 10 position on some reputation rankings. Overall since 1998, total nights spent by tourists in accommodation for the NUTS 2 regions of Scotland have soared by 600,000 in the Glasgow region, 1.4 million in the Edinburgh, Stirling and Perth region, and 1.4 million in the Aberdeen region.<sup>15</sup>
- x. Higher quality of life. The cumulative effect of these changes has been a clear overall improvement in liveability. The EU's survey on quality of life saw Glasgow's overall resident satisfaction surge from 84% to 95% from 2009 to 2015 while Scotland's cities are regularly rated among the most liveable in the UK.<sup>16</sup> This marks a significant change from the high point of de-population, unemployment and disadvantage in the 1970s and 1980s.

Scotland's cities have demonstrated beyond any question their capacity for sustained improvement and for professional and consistent management of assets, opportunities and resources.

<sup>&</sup>lt;sup>12</sup> www.fdiintelligence.com/Rankings/European-Cities-and-Regions-of-the-Future-2016-17

<sup>13</sup> www.gov.scot/Publications/2016/03/3178

<sup>&</sup>lt;sup>14</sup> www.iccaworld.com/newsarchives/archivedetails.cfm?id=5756

<sup>&</sup>lt;sup>15</sup> www.dailyrecord.co.uk/news/Scotland's-news/scotland-enjoying-tourism-boom-three-8123903

<sup>&</sup>lt;sup>16</sup> http://ec.europa.eu/eurostat/data/database; www.centreforcities.org/data-tool/#graph=map&city=show-

all&indicator=working-age-population-with-a-qualification-at-nvq4-or-above\\actual\\2004--2014; http://pwc.blogs.com/scotland/2013/11/Scotland's-cities-amongst-the-uks-top-locations-in-which-to-live-and-work.html;

http://ec.europa.eu/regional\_policy/sources/docgener/studies/pdf/urban/survey2015\_en.pdf; http://ec.europa.eu/regional\_policy/sources/docgener/studies/pdf/urban/survey2009\_en.pdf

#### 3. A national Cities Policy in Scotland?

The multi-faceted evolution of Scotland's cities has prompted new national approaches to the urban agenda. The Scottish Government recently launched its renewed Agenda for Cities, an update of its 2011 position that rests on four foundations: increasing internationalisation of the urban economy, boosting the investment rate, boosting innovation, and supporting inclusive growth.

In particular this strategy places a big focus on Scotland's City Regions as the appropriate scale at which resources can be pooled, and functional economies harnessed.<sup>17</sup> In the first years of its 2011 iteration, this agenda successfully brought into being the Scottish Cities Alliance which helped to drive more effective collaboration between the cities, and advocacy at the national level. It also saw the development of a £10 billion investment prospectus for six of the seven city regions. It was during this period that Glasgow developed the Glasgow and the Clyde Valley City Deal, the first City Deal in Scotland. This was a bold initiative that drew in support from the Westminster and Holyrood governments, and that was announced prior to the Scottish independence referendum in September 2015.

The national cities agenda in Scotland promises greater government support for investment promotion at the level of the city region by running more investor events, attracting investment from sovereign wealth funds and streamlining the government's interface with investors. It also aims to align city needs with wider national cross-sectoral investment strategies (rather than silo them), and looks at applying Tax Increment Financing (TIF) and other schemes. At the same time the Scottish Government is looking to improve business and city access to technology and big data to get smart city projects off the ground. All in all, there is a clear step change towards empowering the city regional scale and ensuring the Scotland's government works more effectively for its major growth engines.

#### **City Region Deals**

A key part of the Scottish Government's new agenda is its agreement to further City Region Deals, which began with Glasgow and then expanded to Aberdeen, Inverness and most recently Stirling. These Deals offer central government (Scottish and UK) funding for key projects that are collaboratively designed and agreed by the local authorities spanning each city region. Each deal is different:<sup>18</sup>

- The Glasgow and Clyde Valley City Deal, signed in 2014, commits funding of £500m over 20 years from both the UK and Scottish governments to the City Deal that is managed by the area's eight local authorities. It will support a £1.13bn infrastructure investment fund, and help leverage a further £3bn of private sector investment. In addition to 20 major infrastructure and employment projects, the Deal provides support to the local life sciences cluster, and business innovation with decisions taken by a dedicated Glasgow City Region Cabinet.<sup>19</sup>
- The Aberdeen City Deal is based on a 50:50 funding formula that will see the Scottish Government allocate 50% of funding on specific projects, with total support worth £250m over 10 years. The Deal explicitly facilitates further development of oil extraction in the North Sea, supports the Port of Aberdeen, and offers a further £254m in funding towards local infrastructure

<sup>&</sup>lt;sup>17</sup> www.gov.scot/Resource/0049/00495349.pdf

<sup>&</sup>lt;sup>18</sup> www.gov.scot/Topics/Built-Environment/Cities

<sup>&</sup>lt;sup>19</sup> www.glasgowcityregion.co.uk/article/7621/How-will-the-City-Deal-work

projects requested by local authorities. Projects are managed and determined by a Joint Committee made of up local authorities and business stakeholders.<sup>20</sup>

 And the Inverness City Deal, signed in March 2016, commits £315m over a 10 year period – including support for improved transport links, digital connectivity, and skills. It is estimated that it will attract around £1bn in private sector investment, in addition to the public funds.<sup>21</sup>

In each case, these negotiated Deals could have an important impact in increasing urban productivity, and increasing the culture of partnership and innovation in these three city regions. These are the first steps towards a more 'managed metropolis', but many more steps remain.

# 4. The next 20 years - what will Scotland's cities need?

As we can see from the range of initiatives and projects noted above, Scotland's cities now find themselves in a new redevelopment path since de-industrialisation; this is especially true for Glasgow and Dundee. Their successful economic restructuring is one that is familiar to many globalising small and medium-sized cities around the world that are seeking to make a long-term transformation from industrial or single sector reliance to more a more diversified city economy. This path is first and foremost one of demographic and business re-urbanisation, the growth of the knowledge and innovation economy, the growing profile of cities as visitor, culture and entertainment destinations, and the need for cities to participate in re-organised global value chains.<sup>22</sup>

This redevelopment path overlaps with other needs and imperatives. In the first instance, Scotland's cities have successfully navigated and delivered regeneration and physical improvements, and will need to press on with these and continue momentum. In a second, they have constructed more deliberate strategies for renewal and economic diversification – and they are now entering the third phase: building a managed metropolis as they capitalise on their initial success and increase the pace of their transformation.

In this next cycle, then, Scotland's cities will need the tools to embrace their population growth, and the densification that will be needed as a result, so that they can manage and adapt to the externalities that come with growth and demand. But they will also require new ways to provide more support to the innovation and new modern engineering and manufacturing economies, to advanced traded urban services, as well as to solve outstanding governance issues across wider city regions, and develop smarter systems for growth and investment management.

Like other groups of cities around the world, Scotland's cities will need to depend on an improved toolkit to allow them to move from physical management and enhancement of their cores, to co-ordinating and upgrading systems across their functional regions. In other words, they need to be empowered – with additional roles, funding and competencies, because they will need and are best-placed to identify their infrastructure investment requirements, especially in transport and housing. And they need these additional powers to enable them to deliver intelligent urban design and help create lively, attractive urban environments.

<sup>&</sup>lt;sup>20</sup> www.aberdeencity.gov.uk/nmsruntime/saveasdialog.asp?IID=68726&sID=26262

<sup>&</sup>lt;sup>2121</sup> www.bbc.co.uk/news/uk-scotland-highlands-islands-35833554

<sup>&</sup>lt;sup>22</sup> http://www3.weforum.org/docs/WEF\_2016\_WhitePaper\_GAC\_Competitive\_Cities\_.pdf

To do so they will require governance mechanisms that are capable of imagining and delivering integrated city systems, beyond traditional administrative boundaries and across departmental silos. They will also need greater coordination and cooperation between entrepreneurs and knowledge institutions such as universities, broadcasters and major hospitals, productive industries and the public sector across multiple jurisdictions, moving away from fragmented approaches to economic development. In short, Scotland's cities will need 'managed metropolitan areas' that adapt and grow in ways that do not increase the negative externalities of growth, while delivering urban environments that the innovation and knowledge economies thrive within.

# 5. City devolution – the English model

When Scotland's cities think about the next cycle of reforms and adjustments, they might take obvious inspiration from the English 'earned autonomy' model of devolution that has moved on apace in recent years. This approach was borne out of a recognition of the significant deficits in powers and resources faced by large English cities compared to other cities in the OECD, plus a cross-party political consensus on the positive impact of successive metropolitan government reforms in and devolution to London since 2000.

The result has been a bespoke mixture of bespoke arrangements, tools, and governance formats according to the needs and complexion of each city - a combination of City Deals, Earn Back Schemes, Combined Authorities, Metro Mayors, and other initiatives. English cities are effectively earning their autonomy by proving their capacity to collaborate and compromise, resulting in a range of different models in Manchester, Birmingham, Bristol, Sheffield, Leeds, Liverpool and others.

There are a number of distinctive elements to the English model:

- City Deals followed by incremental devolution agreements. City Deals have now been awarded to over 30 cities in England.<sup>23</sup> The UK government has since sought to expand its existing deal with the Greater Manchester Combined Authority, with the potential to grant the Mayor powers to raise a Community Infrastructure Levy. Manchester is arguably the biggest beneficiary of the 'Deals' arrangements so far: it has the power and resources to administer its own health and social care systems, and more recently criminal justice powers, with the option for further devolution in the future, and commensurate funding support.<sup>24</sup>
- Earn Back schemes. Manchester is the first city in the UK to benefit from this model. It has agreed with the Treasury the right to retain part of the increase in local tax yields, if these can be linked to the outcomes of local infrastructure investment.<sup>25</sup>
- Combined Authorities and Metro Mayors. Previously fragmented regions are coming together in more formalised governance arrangements in which they can pool resources and take collective decisions within a single metropolitan area. Greater Manchester has been followed by the West Midlands Combined Authority, the Sheffield City Region, and the Liverpool City Region. Combined Authorities are being granted greater powers of infrastructure

<sup>23</sup> www.gov.uk/government/policies/city-deals-and-growth-deals

<sup>&</sup>lt;sup>24</sup> www.bbc.co.uk/news/uk-england-manchester-35824234

<sup>&</sup>lt;sup>25</sup> www.lse.ac.uk/government/Publications/LFC-Report-Raising-the-capital.pdf

investment, housing, economic development and skills – alongside dedicated central government funding envelopes. Many of these combined authorities are incentivised to create a directly elected metropolitan mayor, given the power to increase levies for specific infrastructure projects by up to 2% (subject to agreement from the Local Enterprise Partnership). <sup>26</sup> Mayoral devolution is also being supported with funding pots dedicated to local priorities, currently worth nearly £3 billion for the concerned group of cities.

At the same time, the UK government will now allow councils in England to keep **100% of their business rates** from 2020. This should give them control of a further £13bn of local revenue, as support grants from central government are phased out. Manchester, London and Liverpool will be able to retain the totality of their business rates during a pilot phase, ahead of the general 2020 deadline.<sup>27</sup>

The English experience also involves increasing collaboration between cities, whose most high profile manifestation is the "**Northern Powerhouse**", where major infrastructure investments in digital and transport projects will be co-ordinated, and an integrated transport agency created. More recently, local authority leaders in Bristol, Cardiff and Newport have been developing plans for a **Great Western Cities** powerhouse in order to pool regional resources.<sup>28</sup>

But despite the pace and variety of innovation in reforms to support English cities in the last five years, there remain substantial concerns that the outcomes may not sufficiently empower cities and city regions or alter the balance between the central government and the city regions, and that the initiatives themselves are incorrectly viewed as a magic bullet. This invites consideration of other models around the world that may be relevant to Scotland's cities.

#### 6. OECD examples of fiscal / other devolution models for Scotland's cities?

Whilst it is understandable for Scottish cities to look to the English model of empowerment, especially as Scottish and English cities share the same UK framework, Scotland's cities have plenty of reasons to look *beyond* the limited experience of their English counterparts as they look to adjust to the next cycle of their development.

Scottish cities have important distinctions from their English neighbours in relation to their population sizes, economic functions, and geographies (especially the relative distances from London) which is such a major issue for English cities. They also have different and distinctive relationships with their wider regions and rural areas.

Given the scope that Scottish Government has to "share" or devolve powers to these cities, they may justifiably look to more ambitious models and approaches developed elsewhere in the world. Although the English model is a current example of progressive devolution, there are other options for Scottish cities to draw upon.

<sup>&</sup>lt;sup>26</sup> www.birminghammail.co.uk/news/midlands-news/george-osborne-offers-birmingham-neighbours-10201575

<sup>&</sup>lt;sup>27</sup> www.civilserviceworld.com/articles/news/budget-2016-greater-manchester-liverpool-and-london-pave-way-businessrate-retention

<sup>&</sup>lt;sup>28</sup> www.lepnetwork.net/resources/uploads/files/Spending\_Review\_Autumn-Statement-2015\_-\_Summary.pdf; www.ft.com/cms/s/0/44475c0e-d174-11e5-831d-09f7778e7377.html#axzz40SolstGQ

# Table 2: Example models from around the world

	Pre-reform political structure	Post-reform political structure	Region/city fiscal independence	Key Powers and Responsibilities	Outcomes and Improvements
New Zealand (Auckland)	Fragmented city councils, poor regional cooperation	Unitary Council- regional government after merger of 8 councils.	Moderate	Economic development, infrastructure, key services	Improved regional integration, enhanced cooperation with the state.
Chile	Disempowered municipalities, strong central government with control over regional and municipal policy	Regional devolution, powers "downloaded" from the state to the regions	Moderate	Economic development, social policy, housing and infrastructure	Much enhanced metropolitan coordination for Santiago and other cities
Finland	Surfeit of municipalities, no regional authorities.	Fewer municipalities after multiple mergers, joint municipal boards, voluntary "regional councils"	High	Infrastructure and service provision, notably in health, education and social services	Services, planning and infrastructure aligned to functional geographies.
Belgium	Balance between federal state and regional governments	Substantial devolution of powers to Regional Governments, themselves increasingly stewards of metropolitan governance.	High	-Regions: economic development, land use, employment, housing, infrastructure and transport systems. -Cities: local spatial planning and infrastructure delivery	Greater regional ownership of policy, improved metropolitan coordination

# 7. New Zealand: the full 'regional merger' model.

New	Population (2014)	GDP /cap (2014)		
Zealand	4.5m	\$31,500		
Auckland	Population (2014)	GDP/cap (2014)	City Budget	% of City Budget raised from Central Government transfers
Auckland	1.6m	\$31,800	NZ\$3.8bn	15%

Sources: Brookings Global Metro Monitor (2015), Clark and Moonen (2015), and IMF World Economic Outlook Database.<sup>29</sup>

New Zealand has undertaken significant city regional governance reform in the past decade, particularly focused on its largest city Auckland. Until recently, Auckland endured significant governance fragmentation

<sup>&</sup>lt;sup>29</sup> www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx; www.brookings.edu/research/global-metro-monitor/; Clark and Moonen (2015). International Background Report for the New York Fourth Regional Plan - Global City Regions: Case Studies and Good Practice. How are the world's leading regions tackling their long term challenges?

across eight separate councils, which did not successfully coordinate metropolitan growth. Auckland was viewed as a city of sprawl and motorways, poor public transport and a declining city centre. This fragmentation made collaboration with central government difficult, as it lacked a unified urban body with which to interact and coordinate investments.

Auckland's successful bid to host the 2011 Rugby World Cup became a stimulus for much wider reform.<sup>30</sup> A Royal Commission was set up to consider governance solutions and led to the creation of a new amalgamated city government within 18 months that replaced the councils with a unified city region and a directly elected mayor in 2010. The new Regional Council was complemented by a number of Council Controlled Organisations which manage key investment and infrastructure services under the Regional Council's guidance. This reform gave Auckland the ability to harmonise day to day functionality issues across the region (e.g. waste management, roads), as well as the ability to coordinate strategic planning in infrastructure and economic development.<sup>31</sup>

As a result of the amalgamation, Auckland has increased its rate of investment as council assets and resources were pooled, and regional decision making and cooperation with central government were simplified. The merger saves £80m a year for the Council, and capital investment has been raised to £800m in 2016/2017 with significant progress in the pace of public transport development. A new harmonised rating system has been created, while the ability to negotiate with central government enables both bodies to better align their strategic priorities and funding streams. The benefits are particularly visible in housing, where a Housing Accord was agreed with central government to increase the supply of new homes. The amalgamated council has also drawn up a strategic plan for spatial and economic development (the Auckland Plan) which allows city leaders to "think regionally" about integrated development aims and to mobilise local and central resources towards a common objective.<sup>32</sup>

Chile	Population (2014)	GDP /cap (2014)		
	17.8m	\$23,000		
Santiago	Population (2014)	GDP/cap (2014)	Regional Investment Budget	% of budget raised from transfers
Metropolitan Region	7.2m	\$24,000	\$171m	48%

# 8. Chile: de-centralisation to empowered regional governments

Sources: Brookings Global Metro Monitor (2015), Santiago Metropolitan Region, and IMF World Economic Outlook Database.<sup>33</sup>

Historically, it has been central government that took all major strategic investment and economic decisions across Chile's cities. Mayors and regional governors were only established comparatively

<sup>&</sup>lt;sup>30</sup> http://strathprints.strath.ac.uk/56260/; http://anzrsai.org/assets/Uploads/PublicationChapter/186-

Dollerysustainingregionsarticle.pdf

<sup>&</sup>lt;sup>31</sup> www.knowledgeauckland.org.nz/assets/publications/Governance-of-Auckland-5-years-on-May-2016.pdf

<sup>&</sup>lt;sup>32</sup> http://strathprints.strath.ac.uk/56260; www.knowledgeauckland.org.nz/assets/publications/Governance-of-Auckland-5years-on-May-2016.pdf; https://books.google.co.uk/books?id=xt4w5OCby14C&pg=PA416;

http://localgovernmentmag.co.nz/amalgamation/nz-councils/

<sup>&</sup>lt;sup>33</sup> www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx; www.brookings.edu/research/global-metro-monitor/; www.dipres.gob.cl/595/w3-multipropertyvalues-14338-23712.html

recently, and even democratisation at the local level had not been matched by a significant transfer in power: cities were local extensions of central government that by-passed the regions.<sup>34</sup> But Chile is now creating an empowered intermediary tier of government between local authorities and the state.

In 2015, in a bid to de-centralise decision making in Chile, a bill paved the way for the direct election of regional governors by 2017, and the transfer of greater fiscal resources, as well as new regional powers over economic development, social issues, housing and infrastructure. Elected governors will come first, and the transfer of powers and revenue will happen gradually thereafter. The regions are becoming responsible for three core areas: economic development; social provision; and infrastructure and transport with key civil servants, funds and powers "downloaded" directly from central government ministries to the regions.<sup>35</sup>

This reform will have notable repercussions in the capital, Santiago. 32 of its municipalities will now be more effectively coordinated and governed at the scale of an empowered province, effectively providing metropolitan government where before the state had to deal with each municipality on a case by case basis. This represents a radical step change from a highly centralised system.

# 9. Finland's model of urban devolution

Finland	Population (2014)	GDP /cap (2014)	Inter-governmental transfer revenue as percentage of total revenue for each level of government (2014)	Tax revenue as percentage of total revenue for each level of government (2012)
	5.5m	\$40,300	Local: 29.7%	Local: 45.4%
Heleinki	Population (2014)	GDP/cap (2014)	City Budget	% of budget raised from transfers
Heisinki	1.6m	\$47,500	\$5.7bn	5%

Sources: Brookings Global Metro Monitor (2015), Helsingin kaupunki, and IMF World Economic Outlook Database.<sup>36</sup>

Finland's municipalities work in a highly decentralised system and are strongly empowered: this is because there is no intermediate (regional) tier, only the state and municipalities. As a result, each municipality possesses strong powers over infrastructure and service provision, notably in health, education and social services. They are also very fiscally devolved with only 18% of their income coming from central government transfers and equalisation schemes; the remaining 82% is raised from local income tax, levies and user charges.<sup>37</sup>

This strongly decentralised system has also helped create a culture of collaboration. Individual Finnish local governments often come together to deliver key services to achieve economies of scale – delivered

<sup>&</sup>lt;sup>34</sup> Pflieger, G. (2014). "Santiago de Chile Prototype of the neo-liberal city: between a strong state and privatised public services" in Lorrain, D., Governing Megacities in emerging countries. London: Routledge.

<sup>&</sup>lt;sup>35</sup> http://chiledescentralizado.cl/diez-anos-podria-demorar-el-traspaso-de-las-atribuciones-de-los-actuales-intendentesa-nuevo-gobernador-regional/;

www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2016)13&docLanguage=En <sup>36</sup>www.hel.fi/static/kanslia/ta2017/ta.html; www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx; www.brookings.edu/research/global-metro-monitor/

<sup>&</sup>lt;sup>37</sup> https://books.google.co.uk/books?id=3iXjAwAAQBAJ&pg=PA103 ; www.centreforcities.org/reader/beyond-businessrates/evidence-for-fiscal-devolution/1-international-comparisons/

by joint municipal boards set up to perform specific tasks. Thus Finland has "hospital regions" jointly administered by municipalities, for instance. In addition, municipalities congregate in "regional councils" which act as assemblies of municipal representatives which discuss regional development, planning and coordination issues. In the Helsinki Metropolitan Area, the largest urban area in Finland, municipalities are required to set up co-operative plans for land use, transport, housing and services that are coordinated and delivered across the metropolitan region.

The Finnish government has also been supporting the voluntary merger of municipalities. Already between 2005 and 2016, it had reduced the number of municipalities by more than a quarter. This reduction is largely to provide more effective metropolitan or regional forms of urban government, and to achieve further economies of scale in service delivery. In larger urban areas, the government has pushed for mergers so that municipal boundaries keep up with the functional urban regions. It has even been ready to impose mergers where it considers them financially necessary and will consider doing so after an initial voluntary phase expires in 2017. Importantly, the law provides for the protection of public service jobs following mergers, for a five year period.<sup>38</sup>

Belgium	Population (2014)	GDP /cap (2014)	Inter-governmental transfer revenue as percentage of total revenue for each level of government (2014)	Tax revenue as percentage of total revenue for each level of government (2012)
	11.2m	\$43,000	Region: 64.5% Local: 47.2%	Region: 15.5% Local: 31.4%
Brussels	Population (2014)	GDP/cap (2014)	Regional Budget	% of budget raised from transfers
Capital Region	1.2m	\$46,300*	\$4.43bn	13%

# 10. The Belgian devolution model

Sources: Brookings Global Metro Monitor (2015), Brussels Capital Region, and IMF World Economic Outlook Database.<sup>39</sup>

\*Figure for Metropolitan area.

Belgium has a complex system of devolved government, owing to its linguistic and cultural diversity. It is a federal state, which oversees three regions: Flanders, Wallonia and the Brussels Capital Region. The cities themselves experienced a wave of amalgamations during the 1970s and 1980s, however, which after teething issues came to greatly improve regional coordination.

Belgian regions are examples of highly empowered devolved administrations, which grant their own cities autonomy on local spatial planning and infrastructure delivery, and offer them considerable infrastructure investment and coordination support at the wider metropolitan and regional levels. This model means that spatial plans are greatly facilitated, coordinated and part-funded by regional levels of government. The

<sup>&</sup>lt;sup>38</sup> www.civitas.org.uk/content/files/DevolvedHealthcareinFinland.pdf;

www.kunnat.net/fi/palvelualueet/kuntaliitokset/ajankohtaistilanne/Sivut/default.aspx;

www.virtuaalikunta.net/fi/tietoa/kuntaliitokset/Sivut/default.aspx

<sup>&</sup>lt;sup>39</sup> http://be.brussels/files-fr/a-propos-de-la-region/finances/budget-regional/2015/expose-general-du-budget-2015; www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx; www.brookings.edu/research/global-metro-monitor/

regions themselves are governed by their own parliaments and possess strong powers on economic development, land use, employment, housing, infrastructure and transport systems.<sup>40</sup>

The 2014 transfer of powers was one of the most significant in Belgian history. These consolidated regions' powers over health, social, urban and spatial policy, and were accompanied by a transfer of a further €20bn in federal spending to regional control, and by greater fiscal autonomy worth approximately €12bn. The regions themselves can levy supplementary taxes on inheritance tax, road taxes and other taxes – and transfer some of them to the municipalities, which themselves levy a property tax.<sup>41</sup> The Belgian model has been highly effective for urban adjustment in many Belgian cities, although less so in Brussels whose own regional boundary does not span the metropolitan area.<sup>42</sup>

#### 11. What could work for Scotland's cities – and Scotland?

There is no absolute requirement for Scotland's cities to follow an English model for devolution. The value of having the English cities in their current mode of devolution allows Scotland to learn from what has worked - and not worked so well.

More importantly, Scotland's cities may want to look outside the UK to wider OECD experience and pursue options that have not been available in England. New Zealand's more ambitious consolidations or Chile's strong second tier city regional government, or Finland's more devolved fiscal and service system might suit Scotland much better than the English model which is in part motivated by the need to embrace a very wide range of cities with rather different appetites for self-reliance.

Via the OECD and the World Bank a wide range of other models are available to Scotland. There is the opportunity to think not so much about what incremental agreements might be allowed by the UK Treasury but instead to ask: what does Scotland and Scotland's cities need? In this regard there appear to be at least three priorities that any Scottish "cities devolution" package should embrace:

- <u>Fiscal devolution</u>: It should provide sustained resources for cities to enable them to make major investments in city-regional infrastructure and housing investment, for example via locally-levied revenues (e.g. residential and property tax, land tax, tourism levies etc.).
- <u>Integration of services</u>: It should enable integrated approaches to public transport (road, rail, bus, tram and active travel), health, unemployment, care, adult skills, and employability, so that these budgets can be combined to achieve greater impact.
- <u>Incentivise cities to invest</u>: It should produce resources sufficient to promote continuous reinvestment in the built environment and city management so that Scotland's cites adjust successfully to the new disruptive technologies and the economies that they foster.

So, the question is less whether the English model is right one for Scotland and its city-regions, but rather whether it is the best model available across the OECD.

<sup>&</sup>lt;sup>40</sup> www.belgium.be/fr/la\_belgique/pouvoirs\_publics/regions/competences; http://europe.uli.org/report/brussels-antwerp/

<sup>&</sup>lt;sup>41</sup> http://europe.uli.org/report/brussels-antwerp/; www.parliament.scot/ResearchBriefingsAndFactsheets/S4/SB\_14-88\_Fiscal\_Devolution\_-\_Some\_Comparative\_Examples.pdf

The debate might consider better how to take elements from distinctive reforms that have appeal in Scotland and to combine them in a mix that supports Scottish cities to flourish both as individual cities, and as a system of cities that work together to enhance investment and prosperity.

But how to make a start? There are three steps that might be taken straight away. First, the Scottish Government could initiate an invitation for the Scottish cities to submit proposals on reforms that go beyond or are different to those developed in England. Second, Scottish Cities should consider which reforms they wish to promote and how they would use them to raise productive investment and pursue greater prosperity for Scotland. Third, businesses, universities and other civic leaders should work with the cities to design key reforms and promote them to the Scottish Government. This basic model of 'action talking' has underpinned recent reforms in New Zealand, Finland, and Chile. It involves being open to reforms and testing them transparently through sound research and informed public debate.

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# Fair work and productivity

Gail Rogers and Kenny Richmond<sup>1</sup>

#### Abstract

Fair work can be defined as work that offers effective voice, opportunity, security, fulfilment and respect. Fair work can be a significant driver of productivity for Scotland, and contributing to growth that is inclusive. The available evidence suggests that Scotland's performance in fair work, as measured across its different elements, is generally mixed to poor. The adoption of fair work practices does not have to involve a cost to employers and indeed there may be financial benefits to them. Employee engagement underpins effective voice, and influences many other fair work elements, and skills utilisation underpins fulfilment. Scotland performs poorly on both these elements, so a specific focus on these could have wide ranging benefits and impacts for Scottish companies and workers.

#### 1. Introduction

Previous research has set out evidence on Scotland's performance on a range of drivers of productivity<sup>2</sup>. This paper considers the evidence on 'fair work' as a further driver of productivity. Fair work is also a key element of Inclusive Growth, as outlined in Scotland's Economic Strategy<sup>3</sup>.

This paper outlines evidence on the impact fair work can have on productivity, Scotland's performance on the elements of fair work, and the policy implications of performance gaps.

# 2. What is 'Fair work'?

There is a growing body of evidence about the importance of fair work practices and its impact on employees, employers and economic performance. Fair work plays a key role in supporting the positive behaviours and attitudes of employees that can lead to improved business performance, innovation and productivity, and can lead to better quality jobs.

In March 2016 the Scottish Fair Work Convention published their Fair Work Framework<sup>4</sup> which, while primarily aimed at business employers (workplaces), is also intended to be used by any employer and organisations that have an interest and/or involvement in the labour market to help direct their activities to support fair work. Fair work is also a key focus of the Scottish Government's Labour Market Strategy<sup>5</sup>.

<sup>&</sup>lt;sup>1</sup> Scottish Enterprise is Scotland's main economic development agency and a non-departmental public body of the Scottish Government. It works with partners in the public and private sectors to identify and exploit the best opportunities to deliver a significant, sustainable and inclusive impact on the Scottish economy.

<sup>&</sup>lt;sup>2</sup> For example, see Scotland's productivity performance : latest data and insights. Fraser of Allander Economic Commentary, 39

<sup>&</sup>lt;sup>3</sup> Scotland's Economic Strategy, Scottish Government

<sup>&</sup>lt;sup>4</sup> Fair Work Framework

<sup>&</sup>lt;sup>5</sup> Scotland's Labour Market Strategy, Scottish Government

The Fair Work Convention's definition of fair work is:

Work that offers effective voice, opportunity, security, fulfilment and respect; that balances the rights and responsibilities of employers and workers and that can generate benefits for individuals, organisations and society

The Framework highlights five elements of fair work:

- 1. <u>Effective voice</u>: effective channels of communication in workplaces along with a safe environment that enable workers to contribute to discussions, be listened to and make a difference, promoting an environment of employee engagement.
- 2. <u>Opportunity</u>: ensuring that everyone who wants to can access work and, in work, can develop and progress.
- <u>Security of employment</u>: including stability and predictability of employment, working time and income.
- 4. *<u>Fulfilment</u>*: developing and utilising skills, career advancement and employee engagement.
- 5. <u>Respect</u>: ensuring workers are respected in terms of, for example, health, wellbeing and safety regardless of their role or status.

The basis of this definition is that all work should be fair, and that fair work should be available to everyone regardless of their job, industry, age, race, gender and geographic location. Of all of the elements, the Convention considers effective voice to be the most important.

# 3. Fair work and productivity

While fair work obviously benefits employees there is evidence that it can also increase business / organisational performance and productivity. Productivity is a measure of output relative to inputs, and for very many businesses their most important and costly input is staff. If businesses can get more out of their employees, not through exploitation but by making work fair and fulfilling, their productivity should increase, as should their competitiveness.

A range of evidence shows that a more diverse, skilled workforce *(opportunity)* is more likely to produce and generate new ideas and insights; increased employee engagement *(effective voice)* enables these new ideas to be utilised to increase creativity and innovation; and a secure environment *(security, fulfilment, respect)* facilities and encourages the "discretionary efforts" ('going the extra mile') of workers all of which underpin higher worker performance, innovation and productivity (see Appendix One for more detailed evidence on the links between fair work and productivity).

The evidence on Scotland's performance across the elements of fair work is limited, and this paper summarises what is available.

#### (i) Effective Voice - employee engagement

Research shows that higher levels of employee engagement, a key aspect of effective voice, are strongly linked to higher levels of business financial performance and productivity, reduced staff turnover and absenteeism, and enhanced employee organisational commitment.

However, the evidence suggests that the UK performs poorly on employee engagement compared with many other EU countries (and it is assumed that Scotland performs similarly to the UK). For example, the European Participation Index<sup>6</sup> comprises four indicators of effective voice/employee engagement: Workplace Representation (presence of a representation body and consultation rights), Board Representation (country level legislation regarding employee representation on boards), Trade Union Density (% of workers that are member of a trade union) and Collective Bargaining Coverage (% of workers covered by a collective bargaining agreement).

Overall, the UK ranked second bottom (26 out of 27) in this index in 2010. For Board Representation, the UK was one of 12 countries with *no* legislation covering this, and the UK was ranked 24<sup>th</sup> for Worker Participation, 21<sup>st</sup> for Collective Bargaining and 15<sup>th</sup> for trade union density.





Source: The European Participation Index. Index is a scale of 0 (low) to 1 (high)

Similarly, the Global Perspectives 2015 survey of 20 countries ranked the UK only 12<sup>th</sup> in terms of employee engagement, below the global average score<sup>7</sup>. The survey also examined additional employee engagement indices linked to Wellbeing, Diversity and Innovation<sup>8</sup>. The UK was in the 3<sup>rd</sup> quartile for Innovation and the 2<sup>nd</sup> quartile for both Diversity and Wellbeing. This may explain the UK's overall 3<sup>rd</sup>

<sup>7</sup> Global Perspectives 2015 Employee engagement measured by a mix of employee views about whether how the workplace is well managed; whether work policies support workers; physical work environment; job security; equality & feeling valued; whether organisation cares about health & wellbeing.

<sup>&</sup>lt;sup>6</sup> European Participation Index

<sup>&</sup>lt;sup>8</sup> Wellbeing = health of the workforce; Diversity = workplace representing the wider labour market profile; Innovation = employees motivated to think creatively and develop new ways of working

quartile performance – employees may be less motivated and empowered to think creatively and look for new and better ways of working than those in other countries.

Overall, the evidence suggests low levels of employee engagement in the UK, and by implication Scotland, compared to other countries. If employers are to benefit from the expertise and creativity of their employees, they must allow and encourage employees to voice their opinions and ideas. There needs to be formal channels and a safe environment in more businesses and organisations to allow this to happen, and employees must be able to see the benefits.

Both collective voice, primarily through trade unions (although a trade union presence is not essential to develop a collective voice culture and approaches), and individual voice practices (such as written two way communication and face-to-face meetings between senior managers and employees) within organisations play key roles in increasing engagement. However, collective voice alongside individual voice produces the best outcomes for employees and for businesses in terms of employee commitment<sup>9</sup>.

# (ii) Opportunity - development, diversity, progression

Employers that invest more in employee training tend to have higher productivity, and a more diverse workforce also impacts positively on productivity. Opportunities for progression can boost engagement, job satisfaction and staff retention (all boosting productivity) by giving employees more confidence in their long term career path.

Opportunity, however, is being impacted by job polarisation in Scotland which is restricting career progression as the numbers of mid-skilled jobs are in decline<sup>10</sup>. This has a higher impact on young people and women, as they are disproportionately represented at the low wage/low skill end of the jobs spectrum. While job polarisation has been found throughout Europe, the growth in the number of lower skilled/lower paid jobs has been greater in the UK (and most likely Scotland) than in many other European countries due in part to the UK's more deregulated 'flexible' labour market<sup>11</sup>.

Learning and development is a key element of Opportunity and data suggests that Scottish employers invest slightly more in learning and development than the UK as a whole, with 70% providing on or off-the-job training (67% for the UK); 48% having training plans in place (44% for the UK); and 32% having a dedicated training budget (30% for the UK)<sup>12</sup>.

In terms of international comparisons, 80% of employers in the UK provided Continual Vocational Training<sup>13</sup> in 2010, ranking the UK 5<sup>th</sup> out of 28 countries - and higher than the EU-28 average of 66%.<sup>14</sup> This suggests that employers in the UK (and likely in Scotland) are more likely to undertake workplace training/development than many other countries.

<sup>&</sup>lt;sup>9</sup> Why Should Employers Bother with Worker Voice?" Purcell, j. & Geogiadis, K.

<sup>&</sup>lt;sup>10</sup> Job polarisation is the process by which the shares of total employment accounted for by both high skill/high wage (or non-routine cognitive/interactive) and low skill/low wage (or non-routine, non-skilled) jobs have expanded relative to middle-ranked jobs

<sup>&</sup>lt;sup>11</sup> Hollowing out and the future of the labour market

<sup>&</sup>lt;sup>12</sup> The UKČES Employer Skills Survey 2013

<sup>&</sup>lt;sup>13</sup> CVT refers to education or training activities which are financed in total or at least partly by the enterprise

<sup>&</sup>lt;sup>14</sup> Vocational education and training statistics

In considering diversity, Scotland's female employment rate is higher than the UK and most other European countries, and Scotland's youth unemployment rate is one of the lowest in Europe (although it is still above pre-recession levels and the overall unemployment rate). This could suggest that in terms of gender and age, Scotland's workplaces are more diverse than in some other countries. However, there is evidence of labour market inequalities for ethnic minorities and the disabled in Scotland. In 2015, the employment rate for those from ethnic backgrounds was 59% compared to 73% for the population as a whole, and the gap has increased slightly since 2013. The employment rate for people with a disability was 42% (in 2014).

This may suggest that while Scotland's workplaces seem to perform well in terms of employee development and gender/age diversity, there may remain issues around opportunity and diversity for other groups – particularly ethnic minorities and those with a disability.

# (iii) Security - pay and contracts

Job security is a significant aspect of employee engagement, as employees that feel secure are more willing to adapt and change and to "go the extra mile" than those who feel insecure. It can also increase commitment, job satisfaction, employer-worker trust and can reduce stress.

The Global Perspectives Survey highlights that although the proportion of employees in the UK that feel secure in their job has improved, the UK's performance still lags well behind most other countries: the UK is ranked 16<sup>th</sup> out of 20<sup>15</sup>.

The report does not set out the reasons why the UK lags, but one may be the increase in 'non-standard' forms of working, defined as self-employment and part-time and temporary working. Those in 'non-standard' employment tend to receive less training and those on temporary contracts have more job strain and have less job security than employees in standard employment. Their earnings levels are also lower<sup>16</sup>. Recent UK jobs growth has been driven by non-standard working<sup>17</sup>, and around 40% of UK employment is now in non-standard jobs, giving the UK a mid-table performance compared to other OECD countries.

Job security may also be affected by the use of 'zero hours' contracts<sup>18</sup>. However, recent data shows that Scotland has the lowest proportion of employees on a zero hours contract of any UK region at 2.2% or 59,000 people in employment, and that this has declined by 0.1 percentage points between 2014 -15, whereas in the UK it increased by 0.3%<sup>19</sup>.

Pay equality is also an aspect of fair work and although the gender pay gap in Scotland is lower than in the UK, and falling, it still remains high. In 2015, women working full time earned 7.3% less per hour than men (the gap is 9.4% for the UK as a whole). The UK has the 13<sup>th</sup> highest gender pay gap of 34 OECD countries, so Scotland's gap is likely to larger than the OECD average.

<sup>&</sup>lt;sup>15</sup> Global Perspectives 2015

<sup>&</sup>lt;sup>16</sup> Non-Standard Work and Inequality

<sup>&</sup>lt;sup>17</sup> In It Together: Why Less Inequality Benefits All

<sup>&</sup>lt;sup>18</sup> There is no single agreed definition of what "zero-hours contracts" are, however a common element to various definitions is the lack of a guaranteed minimum number of hours.

<sup>&</sup>lt;sup>19</sup> Zero Hours summary data tables

The evidence suggests Scotland performs better than the UK as a whole on job security, but less well than some other OECD countries due to higher levels of non-standard employment contracts and pay inequalities.

# (iv) Fulfilment - job satisfaction

Employee job satisfaction (resulting largely from good job design and effectively utilising an employee's skills) is positively associated with business performance, productivity and the quality of output and service. This may be partly due to satisfied and engaged employees being more innovative and creative.

An OECD survey of adult skills in 22 countries in 2013 found that the UK had the 2<sup>nd</sup> highest level of skills *underutilisation*, with around 30% of workers reporting that they were overqualified for their job. Although the data is only for the UK, performance in Scotland is likely to be similar, as the 2015 Employee Skills Survey highlighted that 32% of Scottish employers reported that they had staff that were underutilised compared to 30% in the UK<sup>20</sup>.

This suggests that job satisfaction levels in Scotland's workplaces lag that of other countries.

# (v) Respect - health, wellbeing, and safety of others

When employees feel respected they display higher levels of commitment to their employer and lower levels of absence, resulting in lower staff turnover, all of which can boost a firm's productivity.

In considering absence from work due to sickness, in Scotland 2.2% of working hours were lost to sickness lost versus 2.1% in the UK, and the average number of days lost per employee was 4.7 compared to the UK's 4.5<sup>21</sup>. The incidence of sickness absence of employees in the UK is around the OECD average<sup>22</sup>.

This suggests that in terms of employee health and wellbeing, that Scotland and the UK have a mixed performance compared to other countries.

# OECD: Measuring Job Quality

The OECD has recently released new data to assess, in broad terms, job quality across countries<sup>23</sup>. The OECD's job quality themes of earnings quality, labour market security and job strain/quality of the working environment broadly map onto to the elements of fair work and so are a useful way of measuring how Scotland and the UK compare to other OECD countries (refer to Appendix Two for more detail). The OECD categorises countries into high, medium and low performers in terms of job quality, and generally **countries with better quality jobs have higher levels of productivity** (Figure 2). The OECD's assessment is that the UK (and so most likely Scotland), is in the 'medium' group of countries in terms of job quality performance.

<sup>&</sup>lt;sup>20</sup> Employer Skills Survey 2015

<sup>&</sup>lt;sup>21</sup> Sickness Absence in the Labour Market, 2014

<sup>&</sup>lt;sup>22</sup> Mental Health and Work

<sup>&</sup>lt;sup>23</sup> How good is your Job?

Across the three OECD job quality themes, the UK performs less well than other countries on labour market security, has average performance for earnings quality, and performs slightly better than many other countries for job strain/quality of the working environment.

# (vi) Leadership and management skills

Previous research<sup>24</sup> has highlighted that deficiencies in leadership and management skills in the UK, and especially in SMEs, are a particular factor in the UK's lower productivity compared to other European countries and the US. Many managers in SMEs in Scotland and the UK recognise that their skills are undeveloped, and there is a long tail of firms that do not implement management best practices. The research also found a generally low up-take of many 'high performance' HR practices such as information sharing with employees, employee participation in decision making, and training - all key components of Effective Voice.

This implies that better leadership and management performance could impact positively on employee engagement which could, in turn, impact positively on productivity.





# 4. Conclusion and implications

This paper adds to our understanding of the factors that affect Scotland's productivity and inclusive growth performance. Fair work clearly benefits employees, employers and the economy in a number of ways:

- productivity is stimulated by a more active and diverse workforce, by creating more equal, balanced and engaging places to work, and fostering an innovation culture
- fair work leads to better quality and more fulfilling jobs.

<sup>&</sup>lt;sup>24</sup> Leadership and Management Skills and Practices in Scottish Companies: Evidence Update and Potential Implications for SE

An additional benefit to companies is that there does not have to be a significant (if any) additional cost involved in implementing fair work principles.

Compared to other countries, the evidence suggests that Scotland's performance is at best mixed and often poor for the five fair work elements (see Figure 3):

Element	Performance	Evidence
Effective voice	Poor	UK/Scotland performs poorly on measures of employee engagement compared with many other countries.
Opportunity	Mixed	Although Scotland performs well in terms of youth and female employment rates compared to other countries, performance is poorer for other groups and for job progression.
Security	Mixed	Scotland has the low (and falling) proportion of people on a zero hours contract than other UK regions. However, the proportion of employment that is non-standard is likely to be higher than many other OECD countries.
Fulfilment	Poor	Although a high % of UK employers provide in-work training, levels of skills underutilisation are high compared to the UK and nearly all other OECD countries.
Respect	Mixed	Scotland has a slightly higher rate of sickness absence than the UK and other OECD countries, suggesting lower levels of wellbeing. Levels of job strain, though, may be lower than the OECD average.

# Figure 3: Scotland's Fair Work performance, by the five key elements

Overall, the analysis in this paper suggests that Scotland's poor to mixed performance on the five elements of fair work is a real factor in Scotland's mid-table productivity performance compared to other countries.

Employee engagement is highlighted as a key element of fair work that can drive productivity, and evidence suggests that the UK and Scotland do not perform well in this area. Employee engagement is important to a number of fair work elements including Effective Voice, Fulfilment and Respect, so a focus on increasing levels of employee engagement in Scotland would have a wide impact on fair work performance, and company productivity.

As the evidence suggests that fair work practices are *not* adopted by most employers, a challenge for Scotland is to raise the awareness of benefits of this to more companies – and organisations - and to develop novel approaches to incentivise and support more companies to adopt fair work principles and practices.

This will involve both the public and private sectors working together to generate further evidence of the benefits of adopting fair work practices, to raise awareness of these benefits and to identify 'what works' in implementing fair work approaches. The Fair Work Convention's Framework<sup>25</sup> will be a key driver of this in Scotland.

<sup>&</sup>lt;sup>25</sup> Fair Work Framework 2016

#### Appendix One: Evidence of the Impact of Fair Work on productivity

#### Effective Voice

Employee engagement links to higher levels of both productivity and financial performance <u>2011 Workplace</u> <u>Employment Relations Study</u>

Businesses with employee engagement scores in the top quartile are over 20% more productive than businesses in the bottom quartile and also have significantly lower employee turnover and absenteeism. <u>2013 Employee</u> <u>Engagement survey</u>

Trade unions can play in effective collective worker voice. Strong trade unions can help deliver a wide range of benefits to employees including higher pay levels, job security, equality and enhanced training, as well as increased innovation and productivity to businesses.

#### Involvement and Productivity: The missing piece of the puzzle?

Although trade unions are present in almost half of workplaces in Scotland, membership decreased by 9% between 1995 and 2014, a slightly higher picture than in the UK which saw a decrease of 7%. <u>Trade union membership 2014</u>

There has been a significant rise in individual voice practices in UK workplaces (written two way communication, meetings between senior managers and workers, face to face meetings) and these practices are now present in 48% of workplaces in the UK (Scottish figures not available). *The 2011 Workplace Employment Relations Study* 

Research shows that individual voice alongside collective voice produces the best outcomes for workers and for firms in terms of employee commitment.

Scottish Centre for Employment Research (forthcoming)

Arrangements for individual and collective voice are present in only 10% of UK workplaces and are available to only 30% of workers. <u>2011 Workplace Employment Relations Study</u>

# Opportunity (development, progression, diversity)

67% of organisations where expenditure on learning & development (L&D) had increased in the previous two years experienced increases in output as opposed to only 29% organisations where expenditure on L&D decreased. Firms where more than 75% of the workforce took part in L&D development activities had higher productivity, other things being equal.

#### http://www.cipd.co.uk/publicpolicy/policy-reports/investing-productivity-unlocking-ambition.aspx

Job polarisation is affecting opportunity by restricting career progression as the number of mid-skilled jobs are reduced. <u>Scotland's labour market : 'job polarisation' and inclusive growth</u>

There is a large amount of evidence highlighting the positive impact on productivity from a more diverse workforce.

<u>Productivity: getting the best out of people; Ethnic Diversity and Firms' Export Behaviour; SME innovation, exporting</u> and growth; The impacts of migrant worker s on UK businesses

Companies in the top quartile for racial/ethnic diversity in the workforce were 35% more likely to have financial returns above their national industry median, and those in the top quartile of gender diversity were 15% more likely. *Diversity matters* 

# Security (pay and contracts)

64% of the employees identify job security as a key driver in employee engagement as the more secure employees felt the more likely they were to be engaged. This has become a significantly more important driver in recent years. <u>*Global Perspectives 2015</u>*</u>

# Fulfilment (job satisfaction)

Employee job satisfaction is positively associated with workplace financial performance, labour productivity and the quality of output and service. There may be many reasons for this, but it may be partly due to satisfied and engaged employees being more innovative and creative. <u>Review of evidence on employee wellbeing and its potential impact</u> on workplace performance.

Over 65% of engaged employees that are more engaged feel that their work brought out creative ideas, whereas less than 5% of less engaged employees agreed with this. *The Innovation Equation* 

Enriched job design offers greater opportunity for workers to make a distinctive contribution and impacts positively on labour productivity, financial competitiveness, performance and quality.

#### Enriched Job design, High Involvement Management and Organizational Performance

# Respect (personal worth)

A range of evidence shows that when employees feel valued they show higher levels of commitment to the business and lower levels of absence and turnover.

#### Perceived Organizational Support: A Review of the Literature

Employees suffering from high stress levels have lower engagement, are less productive and have higher absenteeism levels than those not working under excessive pressure. The study revealed that over half of those employees claiming to be experiencing high stress levels reported they were disengaged, compared to just one in ten employees claiming low stress levels reported they were disengaged (and half of this group claimed to be highly engaged). The research clearly shows the destructive link between high levels of stress and reduced productivity. The Global Benefits Attitudes survey

#### **Appendix Two**

#### OECD: What makes a good job?

Most people spend a substantial amount of time at work, and work for a significant part of their life. The jobs people hold are therefore one of the most important determinants of their well-being. But what are the features of job quality that affect well-being? The OECD framework for measuring and assessing job quality considers three objective and measurable dimensions of job quality that are both important for worker well-being and relevant for policy. Together, they provide a comprehensive assessment of job quality.

Earnings quality refers to the extent to which the earnings received by workers in their jobs contribute to their well-being. While the level of earnings provides a key benchmark for assessing their contribution to material living standards, the way earnings are distributed across the workforce also matters for well-being. Therefore, the OECD measures earnings quality by an index that accounts for both the *level* of earnings and their *distribution* across the workforce.

Labour market security captures those aspects of economic security that are related to the probability of job loss and its economic cost for workers. This is measured by the risk of unemployment which encompasses both the risk of becoming unemployed and the expected duration of unemployment.

It is measured by the degree of public unemployment insurance, which takes into account both the coverage of the benefits and their generosity.

Quality of the working environment captures non-economic aspects of job quality and includes factors that relate to the nature and content of work performed, working-time arrangements and workplace relationships. Jobs that are characterised by a high level of job demands such as time pressure or physical health risk factors, combined with insufficient job resources to accomplish the required job duties, such as work autonomy and social support at work, constitute a major health risk factor for workers. Therefore, the quality of the working environment is measured by the incidence of *job strain*, which is a combination of high *job demands* and limited *job resources* 

Overall, job quality outcomes vary substantially across OECD countries on each of the three dimensions:

- Australia, Austria, Denmark, Finland, Germany, Luxembourg, Norway, and Switzerland are among the best performers. These countries do relatively well in at least two of the three dimensions of job quality, without any outcomes in the bottom-10 of the ranking.
- Belgium, Canada, the Czech Republic, France, Ireland, Israel, Japan, Korea, Mexico, the Netherlands, New Zealand, Slovenia, Sweden, the United Kingdom, and the United States display average performance. Over the three dimensions of job quality, most of these countries display no more than one outcome in the top-10 or the bottom-10 of the ranking.
- Estonia, Greece, Hungary, Italy, Poland, Portugal, the Slovak Republic, Spain and Turkey do relatively badly in two or all of the three dimensions of job quality. In addition, none of these countries performs very well in at least one of these dimensions.

# Examining inequalities across travel to work areas in Scotland

John Sutherland

#### 1. Abstract

This article examines inequalities across the 45 travel to work areas in Scotland, using four indicators of labour market performance viz. the employment rate; the economic inactivity rate; the percentage holding level 4 (or higher) qualifications; and the percentage having no formal qualifications. The results are then contextualised in a discussion of the possible explanations for these inequalities and their implications for policy.

#### 2. Introduction

The process of economic development varies over space and the economic history of Scotland over several decades illustrates well how the twin processes of job creation and job destruction have different impacts geographically. From the 1950s, demand for the products of Scotland's traditional manufacturing industries, located principally if not exclusively in the west of the central belt, declined further. Job destruction followed and there was no compensating job creation to match the magnitude of the job losses in these urban areas, with manifold consequences for the local populations. In contrast, from the 1980s, job creation was apparent in Aberdeen, its hinterlands and the northern isles, localities historically associated more with agriculture and fishing, with the discovery of North Sea oil and the development of oil exploration and extraction activities (Alexander et al, 2005: Bell and Blanchflower, 2007: Cameron, 2010: Macdonald, 2009: Newlands et al, 2004).

An important feature of the minority Scottish National Party (SNP) Scottish Government's first Economic Strategy set out in 2007 was the identification of a set of targets. These targets took two forms: aspirational targets, designed to set long term direction and ambition; and shorter term objectives, designed to monitor and evaluate economic performance and appraise government policy. 'Cohesion' – by which was meant 'regional equity' - was one of the aspirations. It was central to the Scottish Government's overall purpose of focussing "the Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth" (Scottish Government, 2007, p. 1). Existing inequalities within Scotland were identified and measured in terms of selected labour market indicators and the target was to narrow the gap between Scotland's best and worst performing regions by 2017.

This article examines disparities across the 45 travel to work areas (TTWAs) in Scotland using selected labour market performance indicators. Possible explanations of these disparities are then outlined and their policy implications discussed.

#### 3. Labour market indicators of performance

How economic performance should be measured; how Scotland should be sub-divided geographically to examine spatial differences in performance; and how inter-area differences in performance should be measured are three very problematical issues.

In its first economic strategy document, the Scottish Government elected to make use of one particular labour market indicator – the activity rate - to measure cohesion, although there are other possible indicators of labour market performance (as well as other measures of performance which do not have their origin in the labour market).

Within the population as a whole, at present, those aged 16 years and over are eligible to participate formally in the labour market. This subset of the population measures the potential size of the labour force. Not all those eligible to participate in the labour market do so. A person is described as economically active if he/she is employed or unemployed but seeking and available for work in a particular period. The activity rate measures the number economically active as a percentage of those within the population eligible to participate in the labour market. As such, it is a measure of the actual size of the workforce in that period. It is possible to subdivide the economically active into two groups. The number who have jobs expressed as a percentage of those eligible to participate in the labour market. The number who do not have jobs expressed as a percentage of those eligible to participate in the labour market measures the unemployment rate.

The reciprocal of the activity rate is the inactivity rate, measured as the number who are eligible to participate in the labour market but who do not do so as a percentage of those eligible to participate. The principal economically inactive groups are: people looking after family and home; the long-term sick and disabled; the temporarily sick or injured; retired people; and discouraged workers (defined as those who consider job search to be futile because of the perceived absence of appropriate vacancies within the local economy).

Measures of the activity rate, the employment rate, the unemployment rate, and the inactivity rate offer four different quantitative perspectives of the performance of the labour market. For a given level of labour demand within an economy, the activity rate measures those willing to supply labour; the employment rate measures those willing to supply labour who are in employment; the unemployment rate measures those who are willing to supply labour but who have no jobs; and the inactivity rate measures those who are not participating in the labour market.

The analysis which follows makes use of two of these quantitative indicators of labour market performance viz. the employment rate and the inactivity rate and examines both for people, males and females.

Labour supply, however, has a qualitative as well as quantitative dimension, reflected in people's qualifications and skills. Accordingly, to provide a qualitative perspective of labour market performance, two other indicators are also used in the analysis viz. the percentage who hold qualifications to level 4 (i.e. degree level equivalent) or higher; and those who have no formal qualifications. These two qualitative indicators complement the quantitative indicators of the employment rate and the inactivity rate because, at the level of the individual, the possession of qualifications increases the probability that an individual will

be in employment and the absence of qualifications is associated with an individual not participating in the labour market.

# 4. Travel to work areas (TTWAs)

In the original economic strategy document of 2007, Scotland was sub-divided by local authority areas. TTWAs are a preferred geographical area for examination because they reflect self-contained areas within which most people live and work. TTWAs are based on a statistical analysis of commuting patterns, therefore, rather than administrative boundaries (ONS, 2016). TTWA boundaries are non-over-lapping and cover all of the UK, with TTWAs being assigned to countries and regions of England on the basis of where the highest proportion of the land area of the TTWA falls (e.g. Berwick is a cross-border TTWA and is located in England). Over time, as commuting patterns have changed, with more people traveling longer distances to work, so the geographical area covered by TTWAs has tended to increase. Their numbers have decreased accordingly

The most recent configuration of TTWAs uses 2011 Population Census data. Currently, there are two defining criteria used in the construction of TTWAs. First, they must have an economically active population of at least 3,500. Secondly, at least 75 per cent of the area's resident workforce must work in the area and at least 75 per cent of the people who work in the area must live in the area. There are 228 TTWAs in the UK, of which 45 are in Scotland.

One consequence of the criteria used to construct TTWAs is that they vary in size, with some being much larger than others. For example, the size of the five largest TTWAs in Scotland contrast with the size of the five smallest (cf. Table 1). A further consequence of the criteria used is that, sometimes, the statistical accuracy of the data varies. Therefore, some data are missing for the smaller TTWAs. This is a feature of some components of the analysis in this article.

<i>Five Largest TTWAs</i> Glasgow Edinburgh Motherwell and Airdrie Aberdeen Dunfermline and Kirkcaldy	1,256,435 658,057 424,712 397,285 296,288
<i>Five Smallest TTWAs</i> Campbeltown Portree Mull and Islay Broadfoot and Kyle of Lochalsh Ullapool	7,741 7,545 7,323 6,992 6,834
Maximum Minimum Range Mean Standard Deviation Coefficient of Variation	1,256,435 6834 1,249,601 118,200.5 221,714.5 1.87

Table 1: Travel to work areas (TTWAs): some descriptive statistics

#### 5. Measuring inequalities

Although the Scottish Government in its 2007 economic strategy document elected to use the range, it is possible to identify several other measures of dispersion (or variability or spread) which may be used to examine cohesion (or inequalities).

The range is the simplest measure of dispersion, calculated as the difference between the largest data value of the selected indicators and the smallest data value. It is an imperfect measure because it is subject to the vagaries of what is happening at the polar extremes of the distribution. The standard deviation is a second possible measure of dispersion. This measures the average amount scores of the selected indicators in a distribution of scores deviate from the mean. In this way, it takes into consideration all areas, not only those at the tails of the distribution. The greater the variability/spread of these scores, the larger is the magnitude of the standard deviation. However, the magnitude of the standard deviation depends upon the units used to measure the indicators in question. When there is some difference between these – as there is, for example, in the context of the employment rate and the inactivity rate both of which produce relatively high mean scores – it is often necessary to examine the standard deviation relative to the mean. This third measure of dispersion is the coefficient of variation. This article reports results for each of these measures.

#### 6. Exploring the spatial differences

The TTWA data analysed are extracted from the Excel data sheets which accompany ONS (2016). Their origin is the Annual Population Survey for period April, 2015 – March, 2016.

Table 2: TTWA Employme	ent rates:	some descriptive statistics	5		
People		Men		Women	
Five Highest Employment Rates		Five Highest Employment Rates		Five Highest Employment Rates	
Fort William Portree Shetland Islands Orkney Islands Broadfoot & Kyle of Lochalsh	91.8 89.4 89.1 85.5 84.3	Portree Fort William Shetland Islands Peterhead Golspie and Brora	100.0 93.2 92.3 90.6 88.3	Broadfoot & Kyle of Lochalsh Ullapool Fort William Shetland Islands Orkney Islands	91.8 91.4 90.5 85.7 84.7
Five Lowest Employment Rates		Five Lowest Employment Rates		Five Lowest Employment Rates	
St. Andrews and Cupar Kilmarnock and Irvine Mull and Islay Alness and Invergordon Girvan	67.0 65.8 65.5 65.0 63.7	St. Andrews and Cupar Girvan Dundee Greenock Ullapool	71.1 70.5 70.4 67.1 56.0	Newton Stewart Kilmarnock and Irvine Girvan Mull and Islay Alness and Invergordon	61.5 59.1 58.4 58.3 58.1
Maximum Minimum Range Mean Standard Deviation Coefficient of Variation	91.8 63.7 28.1 75.85 6.64 0.08		100 56 44 79.06 7.51 0.09		91.8 58.1 33.7 72.97 8.61 0.11

There is some evidence of inequality with respect to the employment rate for people across the 45 TTWAs using the three measures of dispersion identified (cf. Table 2). Also, it is apparent that the extent of this inequality differs between men and women. Although the mean employment rate for men is greater than the mean employment rate for women, using the standard deviation and the coefficient of variation as summary measures of inequality, inequality is relatively greater for women than for men. Further, there is evidence that the ranking of TTWAs in the distribution by employment rate differs between men and women. The TTWAs with the five highest and five lowest employment rates by gender are more dissimilar than similar. The value of the pair-wise correlation coefficient between the male employment rate and the female employment rate is (only) 0.323. The value of Spearman's rho – which measures stability in the ranking of TTWAs by gender - is (only) 0.5067.

### Table 3: TTWA Inactivity rates: some descriptive statistics

People <sup>1</sup>		Men <sup>2</sup>		Women <sup>3</sup>	
Five Highest Inactivity Rates		Five Highest Inactivity Rates		Five Highest Inactivity Rates	
Girvan Mull and Islay Kilmarnock and Irvine Ullapool St. Andrews and Cupar	30.4 29.3 27.6 27.0 26.5	Greenock Glasgow Oban St. Andrews & Cupar Dundee	24.1 22.0 21.8 21.6 20.5	Girvan Mull and Islay Kilmarnock and Irvine Newton Stewart Fraserburgh	38.3 36.4 35.5 34.6 31.3
Five Lowest Inactivity Rates		Five Lowest Inactivity Rates		Five Lowest Inactivity Rates	
Orkney Islands Turriff and Banff Aviemore & Grantown on Spey Shetland Islands Fort William	12.2 11.7 10.2 9.4 5.3	Orkney Islands Alness & Invergordon Pitlochry & Aberfeldy Newton Stewart Shetland Islands	11.6 11.4 11.4 9.8 4.7	Pitlochry and Aberfeldy Aviemore & Grantown on Spey Shetland Islands Orkney Islands Turriff and Banff	17.7 15.6 14.3 12.8 10.8
Maximum Minimum Range Mean Standard Deviation Coefficient of Variation	30.4 5.3 25.1 20.24 5.36 0.26		24.1 4.7 19.4 16.48 3.95 0.23		38.3 10.8 27.5 25.21 6.27 0.24

1. No statistically significant data are available for: Girvan.

2. No statistically significant data are available for: Ullapool, Campbelltown, Portree, Fort William, Broadfoot and Kyle of Lochalsh, Peterhead, Aviemore and Granton on Spey and Golspie and Brora.

3. No statistically significant data are available for: Ullapool, Portree, Broadfoot and Kyle of Lochalsh and Fort William.

Descriptive statistics for the economic inactivity rate for people, men and women are presented in Table 3 (although the absence of information for some TTWAs has an incalculable impact on these results). There is evidence of inequality across the 45 TTWAs for people for this second quantitative indicator of labour market performance. Also, there is some evidence of a difference in the extent of this inequality between men and women. The mean inactivity rate for women is greater than the mean inactivity rate for men. Using the standard deviation (but not necessarily the coefficient of variation), inequality across the TTWAs in inactivity rates is relatively greater for women than for men. Further, there is evidence that the ranking of TTWAs in the distribution by inactivity rate differs between men and women. In the context of the TTWAs with the five highest inactivity rates, there is no TTWA which is common to both men and women. In the

context of the TTWAs with the five lowest inactivity rates, the TTWAs for men and women are more dissimilar than similar. The value of the pair-wise correlation coefficient between the male inactivity rate and the female inactivity rate is 0.5505 (higher than the corresponding statistic for the correlation between male and female employment rates). The value of Spearman's rho is 0.5643 (again higher than the corresponding statistic for male and female employment rates).

Descriptive statistics with respect to qualifications are presented in Table 4. Again using the standard deviation and the coefficient of variation as summary measures of inter-TTWA inequalities, inequalities are to be observed for both the rate of those possessing level 4 qualifications and the rate of those possessing no qualifications. However, there is no statistically significant relationship between the employment rate and the rate of those possessing level 4 qualifications at the level of the TTWA (even after controlling for the population size of the TTWAs) (cf. Table 5). Similarly, there is no statistically significant relationship between the level of the TTWA (again even after controlling for the size of the TTWA population) (cf. Table 6).

With Level 4 Qualifications <sup>1</sup>		With No Qualifications	
Five Highest with Level 4		Five Highest with No Qualifications	
Pitlochry and Aberfeldy	53.5	Newton Stewart	17.3
Edinburgh	53.1	Fort William	13.6
St. Andrews and Cupar	50.9	Kilmarnock and Irvine	13.6
Galashiels and Peebles	50.1	Thurso	13.2
Aberaeen	49.5	Greenock	13.1
Five Lowest with Level 4		Five Lowest with No Qualifications	
Turriff and Banff	29.0	St. Andrews and Cupar	5.2
Newton Stewart	25.3	Aberdeen	4.8
Thurso	23.4	Galashiels and Peebles	4.6
Fort William	22.8	Peterhead	4.3
Wick	22.3	Shetland Islands	2.2
Maximum	53.5		17.3
Minimum	22.3		2.2
Range	31.2		15.1
Mean	37.35		9.03
Standard Deviation	7.71		3.40
Coefficient of Variation	0.20		0.37

 Table 4: TTWA Qualifications: some descriptive statistics

1. No statistically significant data are available for: Ullapool, Portree, Broadfoot and Kyle of Lochalsh, Golspie and Brora, Alness and Invergordon and Pitlochry and Aberfeldy.

Table 5: Regression	results:	dependent	variable:	employ	ment rate

	Coefficient	Standard Error	P >  t	Coefficient	Standard Error	P >  t
Level 4 qualifications Log of population size	-0.0721	.1308	0.584	.0458 -1.6062	.1380 .7677	0.741 0.043
Constant Number of	78.5521	4.9882	0.0000 45	91.2369	7.7349	0.0000 45
observations $F(1, 43)(2, 42)$			0.3000			2.3500
Prob > F = R-squared			0.5843 0.0070			0.1075 0.1007

# Table 6: Regression results: dependent variable: inactivity rate

	Coefficient	Standard Error	P >  t	Coefficient	Standard Error	P >  t
No qualifications	.4256	.2517	0.099	.4280	.2474	0.092
Log of population size				.9491	.6231	0.136
Constant	16.6346	2.4267	0.0000	6.3041	7.1887	0.383
Number of observations			39			39
F (1, 37) (2, 36)			2.86			2.6400
Prob > F =			0.0993			0.0851
R-squared			0.0717			0.1279

# 7. Explaining spatial disparities and the policy implications

Different perspectives offer different explanations for spatial disparities in indicators of labour market performance. Using the traditional framework of labour economics, disparities are attributable to supply and demand factors. Using the more contemporary framework of urban and regional economics, these same disparities are attributable to 'people effects' or 'place effects' (Little, 2009).

According to supply-based explanations, spatial differences in the indicators examined above reflect spatial differences in the demographic profile. Some groups within the working age population are more at risk than others. Individuals in these potentially more vulnerable groups are not distributed randomly over space. Rather, they tend to be concentrated into specific localities. Disadvantaged individuals tend to be located in areas of disadvantage (H.M. Treasury and DWP, 2003). Given that the 'problem', therefore, is 'people' not 'place', the appropriate policy response is suitably designed and targeted active labour market policies, most frequently skills-based retraining or up-skilling.

This policy response is a component part of a more comprehensive spatially (or place) -blind, peoplebased strategy towards economic development. This strategy focuses upon universal investments in human capital – in education and health especially – and encourages mobility into areas where individuals may be more productive. These policies are complemented with transport and communications infrastructure policies designed to facilitate this mobility. According to this neo-liberal perspective, ultimately, convergence will follow, as long as factor and capital markets are allowed to operate freely. Applying the framework associated with contemporary urban and regional economics, these supply-based explanations ignore history, context and path dependency. To illustrate, they ignore (or deny) the possibility that weak or no attachment to the labour market may be attributable to the long term absence of employment opportunities in the local jobs market. Job destruction, particularly in those sectors which historically had provided employment to individuals many of whom are now classified as 'vulnerable', has prevailed. And where job creation has been evident, it has been neither of the quantity nor of the character to match job aspirations and expectations. The local jobs market, therefore, has structured the labour market outcomes which are observed. Consequently, the 'problem' is not 'people' but 'place', and the notable absence of work in these places. Furthermore, the impact of place goes beyond labour market participation – or otherwise – because where individuals live is central to every facet of their lives.

Given this diagnosis of the problem, the appropriate policy response is the design and implementation of place-based measures to support the creation of, inter alia, employment opportunities (which is not to deny the probability that skills development/enhancement may also be a requirement to ensure that individuals are better able to capitalise upon these opportunities). That said, the place-based construct is a contested construct and there is no dominant narrative to inform policy. Consequently, there are differing perspectives of what constitutes appropriate place-based policies (Barca et al, 2012). However, each rejects the neo-liberal analysis and maintains that convergence i.e. the elimination or, more likely, the diminution of spatial inequalities - can be achieved only as a consequence of policy interventions to promote growth in all areas because all areas are deemed to possess unrealised growth and development potential.

Historically in the UK, these place-based policy interventions have focussed upon infrastructure provision and state assistance to 'depressed areas', usually areas of relatively high unemployment. Invariably, infrastructure was associated with roads (e.g. motorways). State assistance was associated with diverse (and changing) types of financial support, incentives and subsidies to firms located in these areas or to provide incentives to firms to re-locate into these areas. Often it was allied to inward investment strategies, designed to attract the branch plants of large, multinational firms. For long, this type of policy intervention typified the Scottish experience (McCrone, 1969).

More contemporary approaches towards place-based policies are associated with several inherent features (Barca et al, 2012: McCann and Ortega-Argiles, 2013: Turok, 2008) viz.:

What is of central importance is the performance of the system as a whole. Removing disparities – or achieving cohesion - therefore, is not the development policy objective. Rather the focus of policy is to maximise the development potential latent within all areas;

The recognition of the salience of history, context and path dependency is equally important. As a consequence, policies are responsive to the different needs of different areas. Given the variety of factors in diverse geographical locations, therefore, there are many possible pathways to development;

Policy builds upon local embedded knowledge, and is generated by means of deliberate and participatory processes which incorporate local and external principals of relevance; and

Policy is enabling, not compensating. Policies are about transforming individual differences into assets which contribute to the whole, shaping the potential of all territories and all the people who live in them.

#### 8. Conclusions

There is evidence of inequalities across the 45 TTWAs in Scotland for the four indicators of labour market performance examined. However, the results presented in this article are a point in time snapshot of inter-TTWA differences measured for the period April, 2015 – March, 2016. No comment can be made, therefore, as to whether these differences have increased or decreased over time and what progress has been made (or not made) towards achieving the cohesion aspiration identified in the 2007 Scottish Government economic strategy document.

There are notable elements of continuity between that document and the recently published labour market strategy document (Scottish Government, 2016). In the latter, tackling inequalities between regions is identified as one of the 'challenges'. Despite decades of (principally Westminster inspired and directed) policy interventions, spatial imbalance, manifest, for example in inequalities in employment rates, inactivity rates and qualification levels, is a persistent feature of the labour market in Scotland. In the labour market strategy document, 'cohesion' remains one of the targets to be used to monitor progress towards realising the vision of a strong labour market that drives 'inclusive, sustainable economic growth'. The labour market strategy document, therefore, is not 'space-blind'. It does acknowledge that "it is essential that our national labour market strategy takes account of regional and local variations" (Scottish Government, 2016, p. 34). That said, there is little by the way of detail about how this recognition of the need to 'take account' of these existing spatial differences is to be addressed.

Successive SNP administrations have focused upon aggregate (i.e. national) indicators of labour market performance, partly to benchmark Scottish performance against other comparable countries and partly to compare and contrast Scottish performance with what is happening elsewhere in the UK. As a consequence, the economic geography of the country, with its manifold spatial inequalities, has tended to be ignored. The spatial dimension, however, has been an important feature in both the UK national referendum on the EU and the presidential election in the USA. Moreover, 'inequalities' – imagined, perceived and real – have been forwarded as important factors part explaining this spatial dimension. Consequently, it may be politically expedient and economically advantageous for the Scottish Government now to re-focus its policy agenda and re-design its governance structures. For example, it should make cohesion a policy objective rather than an aspirational target; and it should design a multi-level governance framework to produce more place-sensitive policies and procedures which mobilise local actors, assets and institutions in the process of economic development.

#### References

Alexander, D., Armstrong, J., Ashcroft, B., Coyle, D. and McLaren, J. (2005) The Political Economy of Scotland, Past and Present. In Coyle, D., Alexander, W. and Ashcroft, B. (eds.) New Wealth for Old Nations: Scotland's Economic Prospects. Princeton, New Jersey, USA: Princeton University Press.

Armstrong, H. and Taylor, J. (2000) Regional Economics and Policy. Oxford: Blackwell Publishers.

Barca, F., McCann, P. and Rodriguez-Pose, A. (2012) The Case for Regional Development Intervention: Place-based versus Place-neutral Approaches. Journal of Regional Science, 52 (1): 134 -152.

Bell, D. and Blanchflower, D.G. (2007) The Scots May Be Brave But They Are Neither Healthy Nor Happy. Scottish Journal of Political Economy, 54 (2): 166 -194.

Cameron E.A. (2010) Impaled Upon a Thistle: Scotland Since 1880. Edinburgh: Edinburgh University Press.

Connolly, S. and Gregory, M. (2007), Women and Work since 1970. In Crafts, N., Gazeley I. and Newall, A. (Eds), Work and Pay in 20th Century Britain, Oxford University Press, Oxford.

H.M. Treasury and Department for Work and Pensions (2003) Full Employment in Every Region. London: HMSO.

Little, A. (2009) Spatial Pattern of Economic Activity and Inactivity in Britain: People or Place Effects? Regional Studies, 43 (7): 877 -897.

McCann, P. and Ortega-Argiles (2013) Transforming European Regional Policy: A Results-driven Agenda and Smart Specialisation. Oxford Review of Economic Policy, 29 (2): 405 -431.

McCrone, G. (1969) Regional Policy in Britain. London: George Allen and Unwin.

Macdonald C.M.M. (2009) Whaur Extremes Meet: Scotland's Twentieth Century. Edinburgh: John Donald.

Newlands, D., Danson, M. and McCarthy, J. (eds.) (2004) Divided Scotland? The Nature, Causes and Consequences of Economic Disparities within Scotland. Aldershot, Ashgate.

ONS (2016) Travel to work area analysis in Great Britain: 2016. London: Office for National Statistics.

Scottish Government (2007) The Government Economic Strategy. Edinburgh: The Scottish Government.

Scottish Government (2016) Scotland's Labour Market Strategy. Edinburgh: The Scottish Government.

Turok, I. (2008) Harnessing the Potential of Scotland's Cities. Scottish Affairs, no. 63: 58 -88.

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# Adjusting the Scottish block grant abatement: the algebra of CM and IPC<sup>1</sup>

Jim Cuthbert

### Abstract

In the Fiscal Settlement negotiations between the UK and Scottish governments earlier this year, one important element of the debate crystallised around the choice between the so-called CM and IPC methods of adjusting the Block Grant abatement. It is well known that the Treasury's preferred method, the CM approach, exposes Scotland to the risk of relative population decline - but the precise mechanism is not well known. This note develops a simple algebraic expression for the difference between the two methods, and explores some of the implications.

Key words: Scotland, fiscal framework, HMT

# 1. Introduction

The review of the Fiscal Settlement methodology scheduled for five years of its operation will be a critically important juncture. There is a real danger that the review will become side-tracked into an argument about the merits of the Treasury's CM method, relative to the IPC approach.

The purpose of this note is to clarify the algebra surrounding the relative properties of the CM and IPC approaches to adjusting the Scottish block grant abatement and to use this to highlight some of the issues surrounding the choice of method: and, in particular, to argue that there is a real need now to resolve some of the ambiguities surrounding the question of what was actually agreed during the fiscal settlement negotiations.

# 2. Background.

Under the terms of the post-referendum fiscal settlement, the funding of the Scottish government will come from two main sources: about half will come from the Scottish government's block grant, determined basically by the Barnett Formula; and about half from taxes, like income tax or a portion of VAT, devolved or hypothecated to Scotland. In more detail, the system will operate as follows. There will be an abatement to the Scottish government's block grant as it would have been determined by the original Barnett formula, to allow for those revenues which will be raised by Scotland's devolved or hypothecated taxes. This abatement will initially be set in a neutral fashion, equal to the revenues raised in the base year in Scotland by the relevant taxes. Each year subsequently, this abatement will be increased by some form of indexation or adjustment. Agreeing on precisely how this adjustment should be carried out turned out to be

<sup>&</sup>lt;sup>1</sup> CM – Comparable Model; IPC – Indexed per Capita.

one of the main bones of contention between the Westminster and Scottish governments during the Fiscal Settlement negotiations.

The final position reached in these negotiations was an uneasy compromise between two possible approaches to adjusting the block grant abatement. The two approaches in question are known as the Comparable Model, (CM), and Indexed Per Capita, (IPC), approaches, which are basically defined as follows.

- The CM approach involves adjusting the block grant abatement each year by adding on Scotland's per capita share of the change in relevant rest of UK, (rUK), tax revenues, multiplied by a comparability factor, which represents the initial ratio of Scotland to rUK per capita receipts on the relevant tax.
- The IPC approach involves indexing the block grant abatement each year in line with the growth in rUK tax receipts, divided by the relative rate of growth in rUK to Scottish populations. (The approach which later came to be denoted as the IPC method was first suggested in Cuthbert, (2015), where the unstable nature of indexation methods which did not allow for relative population change was discussed.)

Formal definitions of the two approaches can be found in Annex C to the fiscal agreement between the UK and Scottish governments: (UK and Scottish Governments, 2016).

In the fiscal settlement negotiations, the Treasury's approach latterly was that the CM approach should be adopted: while the Scottish government held out strongly for IPC. The agreement that was eventually reached was as follows: (for details, see Annex C to the fiscal agreement). For the first five years the CM approach would be used – on the understanding that the results over that period would be adjusted to be equivalent to use of IPC. After five years, there would be a review. What is stated about this review in Annex C is that:-

- It would be informed by an independent report on the operation of the system to date.
- The fiscal framework does not include or assume the method for adjusting the block grant beyond the five year transitional period.
- The method to be used after the review would be jointly agreed by both governments.

There nevertheless appears to be a good deal of confusion about what the agreement actually means. For example, the Secretary of State for Scotland, David Mundell, said the following in his statement to the House of Commons on 24<sup>th</sup> February, after the agreement was reached: "*For tax, we will use the UK Government's preferred funding model. Under that model the Scottish Government hold all Scotland-specific risks in relation to devolved and assigned taxes, just like they do for devolved spending under the Barnett formula. That is fair to Scotland and fair to the rest of the UK.* 

However, for a transitional period covering the next Scottish Parliament, the Governments have agreed to share those Scotland-specific risks as these powers are implemented. Specifically, the Scottish Government will hold the economic risks while the UK Government will hold the population risks, so the Scottish Government will not receive a penny less than Barnett funding over the course of the spending review simply due to different population growth. By the end of 2021, a review of the framework will be

informed by an independent report so we can ensure that we are continuing to deliver Smith in full, with the Scottish Government being responsible for the full range of opportunities and risks associated with their new responsibilities."

This statement by David Mundell can clearly be interpreted as implying that the default position is that the CM model, (i.e., the UK government's preferred funding model), should be used after the review. This, for example, was the interpretation taken by the Daily Telegraph, when, reporting on Mundell's statement, they said that "Scottish ministers would be expected to start bearing the financial consequences of Scotland having lower population growth after a five-year transitional period for the new powers ends."

3. How relative population growth drives the difference between CM and IPC.

It is indeed well known that the difference between the effects of the CM and IPC approaches to adjusting the Block Grant abatement relates to relative population change. It is also well known that the difference between the two methods is likely to be significant: e.g., a report by the IFS estimated that the revenues available to the Scottish government under CM might be some £330 million per annum less than under IPC by 2021, and around £1 billion per annum less by 2031: (Bell et al., 2016, page 31).

What is perhaps less well known is precisely how relative population change affects the difference between the two approaches. The purpose of this section is to provide the algebra to fill this gap.

Some notation is required first of all: suppose that

 $a_k$  = the block grant abatement in year k under CM:

 $b_k$  = the block grant abatement in year k under IPC:

let  $\gamma_k$  = the relative rate of growth of population in rUK as compared to Scotland in year k:

(so  $\gamma_k = \frac{p_{k-1}^S}{p_k^S} \frac{p_k}{p_{k-1}}$ , where  $p_k^S$  and  $p_k$  represent population in year k in Scotland and rUK repectively.)

Then, given the formulae for the CM and IPC approaches set out in Annex C to the fiscal agreement, (paras C24 and C31), it turns out that the relationship between  $a_k$  and  $b_k$  is given by the formula

$$a_{k+1} = b_{k+1} + \sum_{j=0}^{k} (1 - \gamma_{j+1}^{-1}) b_j \tag{1}$$

(See Annex for proof.)

Note the following implications of formula (1).

a) Since  $\gamma_k$  has historically been greater than 1, (in fact, commonly around 1.0035), the terms  $(1 - \gamma_{j+1}^{-1})$  will be positive: so the CM abatement will be larger than the IPC abatement.

b) Further, since the difference between the two approaches is given by the summation term in the above formula, the absolute difference will build up cumulatively through time.

c) Moreover, since  $(1 - \gamma^{-1})$  is an increasing function of  $\gamma$ , formula (1) contains within itself the potential for a re-inforcing feedback mechanism under the CM approach. As the relative size of the CM abatement increases through time, this will put increasing pressure on Scottish public expenditure, (or upward pressure on Scottish tax rates): leading to depressed relative economic growth: leading to upward

pressure on relative population growth in rUK, (i.e., an increase in ): which, feeding back into formula (1), will further increase the difference between the CM and IPC abatements: and so on.

### 3. Wider implications.

The purpose of this note is not to pre-empt the review of abatement adjustment methods which is scheduled to take place in five years' time. But, on the other hand, that review will be a difficult enough process in its own right: so it is important that the conduct of the review is not clouded by needless arguments. As the algebra in the preceding section demonstrates, (and as confirmed by the Bell et.al. estimates), if the review comes down to a choice between the CM and IPC methods, then this choice will be very significant for Scotland – particularly given the potential for the CM method to contribute to a self-reinforcing process of relative economic and population decline.

As the above quotation from David Mundell indicates, one of the chief protagonists was able to emerge from the fiscal settlement negotiations giving the firm impression that the CM approach would be the default position after five years: even though the Annex C wording appears to contradict this. The time to root out this potential ambiguity is now: after five years, it will be very difficult to go back to determine who said what, and what was actually agreed. The best approach would be for a full record of the negotiations to be published: this would be consistent with the pledge made by John Swinney in the course of the negotiations, that "Scotland's Parliament and people have a right to see all the key documents": (as reported, for example, in The Daily Mail, 7<sup>th</sup> February 2016). Failing this, a clear agreed statement should be issued now by the Scottish government and the Treasury, confirming that Mundell was wrong, and that there is indeed no presumption that the CM approach is the default position after five years. To command credibility, such a statement would also have to fill in another vital piece of information which is currently missing: namely, what is the resolution mechanism if the Westminster and Scottish governments cannot reach agreement in the course of the five year review?

In the absence of further clarity, there is a danger that argument about the relative status of the CM and IPC methods could become a distraction in the review process. The main weakness with the current settlement is the extent to which, (even with IPC), it exposes Scotland to the danger of becoming locked into a progressive cycle of relative economic decline, and increasingly penal indexation of the block grant abatement, if Scotland fails to match rUK in the growth of per capita tax receipts. (It is worth recalling that the IFS report, (Bell et al., 2016), noted that Scotland's new fiscal arrangements look "*increasingly unusual*" in international terms, with "*virtually no insurance for future economic shocks or trends that affect Scotland's devolved revenues and welfare more than they do equivalent spending in rUK*"). When the five year review comes round, there is a real risk, particularly given the secular decline in the North Sea, that Scotland will be locked into a just such a cycle of decline. In these circumstances the five year review should focus on radical alternatives to IPC indexation – and should be attempting to put back in place arrangements which are consistent with the proper operation of a monetary union. It would be a tragedy if the Treasury were able to use the current ambiguity about what was actually agreed post-Smith to distract attention into a debate about CM versus IPC: or to use CM as the default position.

### References

Bell, D., Eiser, D. and Phillips, D., (2016): "Scotland's Fiscal Framework: Assessing the Agreement": IFS Working Paper W16/05; March.

Cuthbert, J. R., (2015): "The Barnett formula under the Smith reforms": Fraser of Allander Institute Economic Commentary, Vol (39)1, June.

UK and Scottish Governments, (2016): "The agreement between the Scottish Government and the United Kingdom Government about the Scottish Government's Fiscal framework": February.

Annex: Proof of Formula (1).

In addition to the notation already introduced in section 3, let

 $X_k$  denote rUK tax receipts in period k: and let

# $\alpha$ denote the comparability factor for the CM method.

According to the definition given in para C22 of the fiscal agreement, (UK and Scottish Governments, 2016), the comparability factor represents the initial ratio of Scotland to rUK per capita tax receipts: since  $b_0$ , the initial abatement under the IPC scheme, is by definition equal to Scottish tax receipts in the base year, it follows that

$$\alpha = \frac{b_0}{p_0^5} \frac{p_0}{x_0} \tag{2}$$

From the definition given in para C24 of the fiscal agreement, it follows that

$$a_{k+1} = a_k + \alpha \frac{p_{k+1}^3}{p_{k+1}} (X_{k+1} - X_k)$$
(3)

And it follows from the definition given in para C31 of the fiscal agreement that

$$b_{k} = b_{0} \frac{x_{k}}{x_{0}} \frac{p_{k}^{2} p_{0}}{p_{0}^{5} p_{k}} , \text{ hence}$$

$$b_{k} = \alpha \frac{p_{k}^{2}}{p_{k}} X_{k} . \qquad (4)$$

From (3) and (4), it follows that

$$a_{k+1} = a_k + b_{k+1} - b_{k+1} \frac{x_k}{x_{k+1}} .$$
(5)

Now, since  $\frac{b_{k+1}}{b_k} = \frac{p_{k+1}^S}{p_k^S} \frac{p_k}{p_{k+1}} \frac{x_{k+1}}{x_k}$ , it follows that

$$b_{k+1} \frac{X_k}{X_{k+1}} = b_k \frac{p_{k+1}^S p_k}{p_k^S p_{k+1}} = b_k \gamma_{k+1}^{-1}$$
.

Substituting this into (5), it follows that

$$a_{k+1} - a_k = b_{k+1} - \gamma_{k+1}^{-1} b_k : \text{ which implies}$$
$$a_{k+1} - a_k = b_{k+1} - b_k + (1 - \gamma_{k+1}^{-1}) b_k$$
(6)

Summing equation (6) for all values from 0 up to k implies that

$$a_{k+1} - a_0 = b_{k+1} - b_0 + \sum_{j=0}^k (1 - \gamma_{j+1}^{-1}) b_j$$
:

Since, by definition,  $a_0 = b_0$ , this establishes formula (1).