

POLICY INSTITUTE

The Tim'rous Beastie

Scotland's Economic Performance Analysed

Professor Donald JR MacRae

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Synopsis

Scotland's economy is not doing as well as it should. On a range of measures it compares poorly with neighbouring and other OECD countries. Whether on growth, productivity or current wealth, Scotland performs badly. More specifically, it is clear that Scotland's business sector is not dynamic enough. R&D expenditure and capital investment are low. In particular, Scots are 'tim'rous beasties' when it comes to starting up their own firms. We do it less often, know fewer people who do, and invest less in them when we take the plunge. The Scottish Parliament has considerable economic powers to encourage a better performance. What is lacking is a political consensus for meaningful action.

POLICY INSTITUTE

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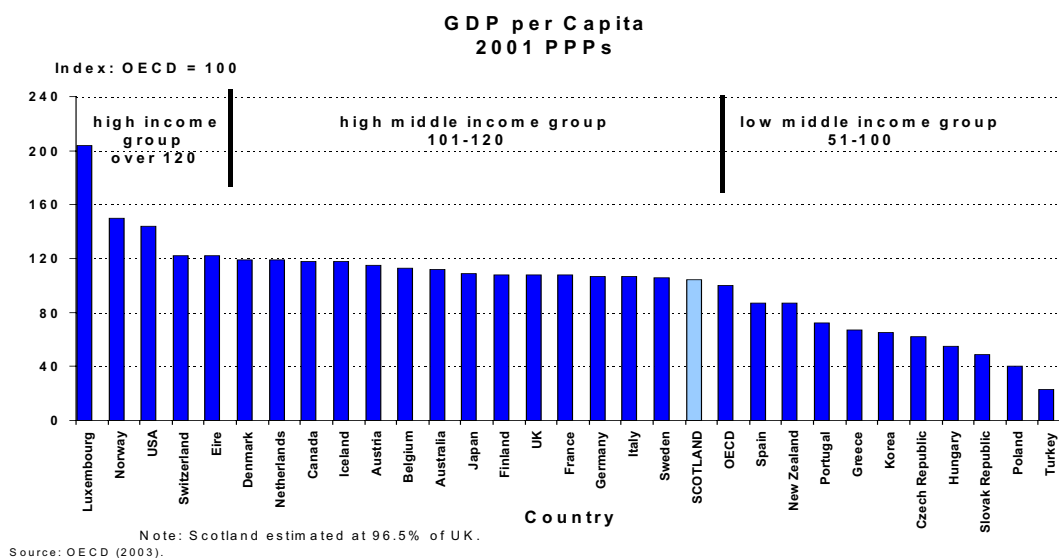
Scotland in a global context

“Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism but peace, easy taxes, and a tolerable administration of justice: all the rest being brought about by the natural course of things”.

Thus pronounced Adam Smith, one of Scotland’s greatest sons on the subject of economic growth, in 1755. Present day observers of Scotland’s economic performance may well have just cause to question Adam Smith’s assertions given our relatively poor record in growing our economy compared to the UK, our European neighbours and international competitors both large and small.

Scotland’s Gross Domestic Product (GDP) per head is the fourth lowest in the EU after Greece, Spain and Portugal. The chart below shows GDP per capita based on 2001 data adjusted for purchasing power parity removing the influence of fluctuating exchange rates.

Near the Back...

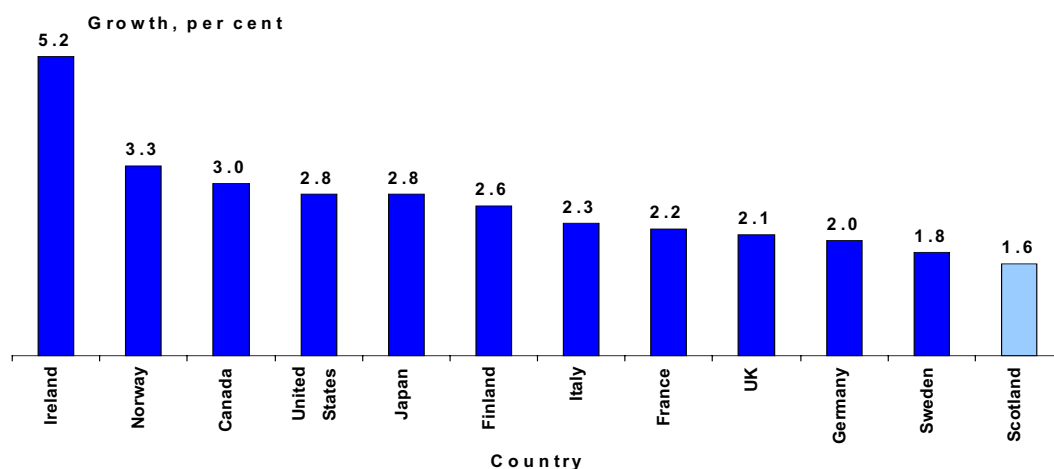


These OECD data for thirty countries show Scotland eleventh from the bottom at the end of the high to middle income group. The first five positions are occupied by Luxembourg, Norway, USA, Switzerland and the Irish Republic. Note the combination of large and small countries – size seems no impediment to a high income per head. Note also that Scotland is behind the UK which itself is only in the middle of the range. This position is the result of decades of low economic growth.

The next chart shows growth rate per annum for the period 1973 to 2001 for 12 countries.

...and Getting Worse

International Comparisons of GDP Growth 1973 - 2001



Source: Goudie (2003).

The Republic of Ireland's status as the only Celtic tiger is shown by its annual average growth rate for this thirty year period of 5.2%. Next comes Norway at 3.3% - a small country comparable in size to Scotland. The USA records a robust 2.8% as does Japan. Finland - another small country in the north of Europe - records 2.6%, while the UK comes in at 2.1%. At the bottom of the table comes Scotland with 1.6% - the lowest of all the countries shown.

GDP growth is not the same as *Gross National Product* (GNP) growth - the difference being the dividends returned to foreign owned companies. It is also true that incorporating the majority of the North Sea oil and gas sector into Scotland's economy marginally improves Scotland's performance. But there is no denying the gap between the 'tim'rous beastie' performance of Scotland compared to the 'Celtic tiger' performance of the Irish Republic.

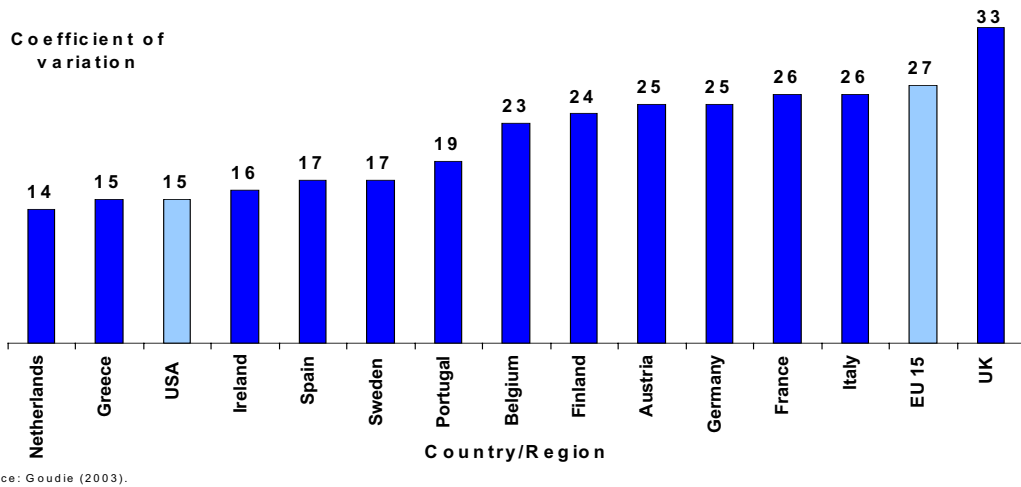
Little Domestic Comfort

Scotland's GDP per head may well be the highest in the UK outside London and the South-East but the UK is a poor comparator. This intra-UK comparison only serves to show how disadvantaged the regions of England and Wales outside the South-East are and how relatively poor the UK performance is overall.

This next chart shows the degree of sub-national variation in GDP per head for 14 countries and the EU 15.

UK Regional Divide

EU and USA Sub-National Variation in GDP per Head

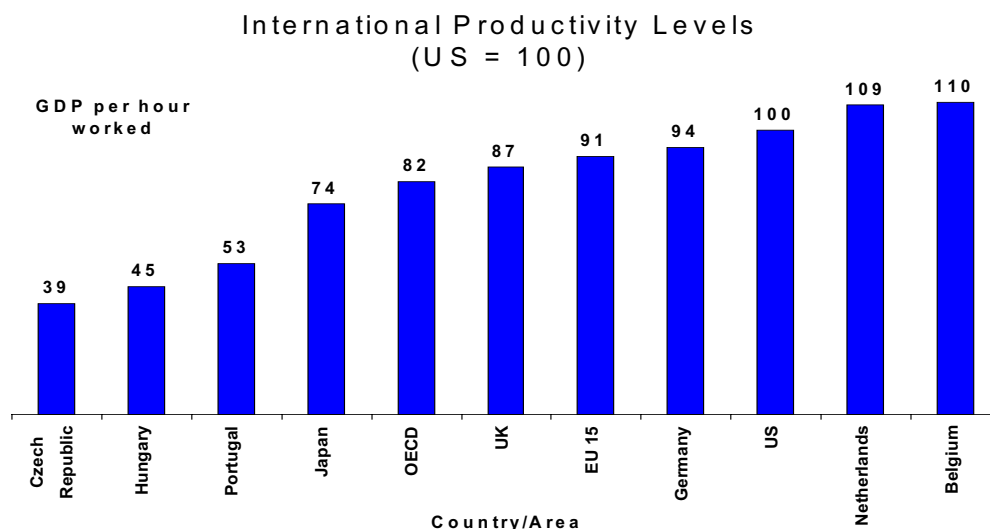


The chart shows the coefficient of variation of GDP per head for 14 countries. This measure of variation shows the EU 15 exceeding the US by a wide margin. The EU 15 coefficient variation of 26 compares unfavourably to that of the US of 15. There is, however, a wide range within the EU itself – the data show that sub-national GDP per head variation in the UK is very large by international standards and averages twice that of the Netherlands and the USA. The north-south divide in the UK is really between London and the South-East on the one hand and the rest of the UK on the other. Where does the variation come from?

A key driver of economic growth is productivity growth. Productivity or output per unit of input expresses how efficient both companies and economies are in their use of capital – human, intellectual and investment.

The chart overleaf shows international productivity levels for 11 countries with the USA equal to 100.

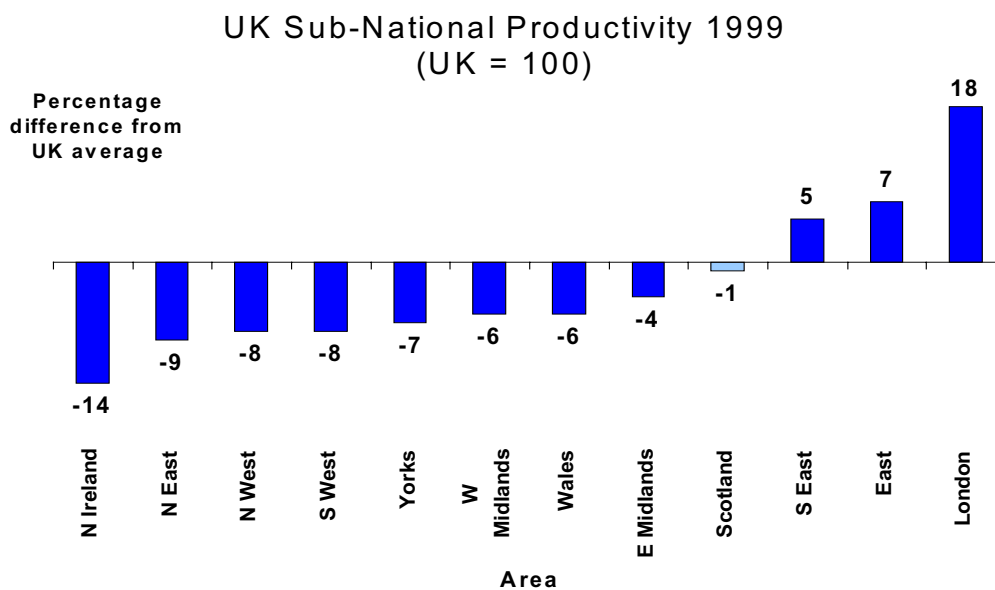
Low Productivity...



Source: Goudie (2003).

There are distinct productivity differences at the EU level. However, the UK has a significant productivity problem by international standards which has persisted over a long period. UK productivity lags by up to 25-30% behind the leading EU member states and the USA. Over the period 1994-2003, there has only been very modest convergence in productivity. Not only is there a wide gap between UK productivity levels and those of the EU and US, but there are also wide differences *within* the UK itself. The next chart shows UK sub-national productivity in 1999 with the UK equal to 100.

... and Great Regional Variation



Source: Goudie (2003).

The bars show the percentage difference from the UK average. They illustrate the wide disparity within the UK economy, ranging from

between 5% and 18% above the national average in the regions of London, the East and the South-East of England to 14% below the national average in the North-East of England and Northern Ireland. Scotland is the most productive part of the UK outside London, the East and the South-East. These sub-national productivity disparities account for around 60% of sub-national GDP per capita differentials, thus underlying the importance of the productivity challenge.

The Productivity Challenge

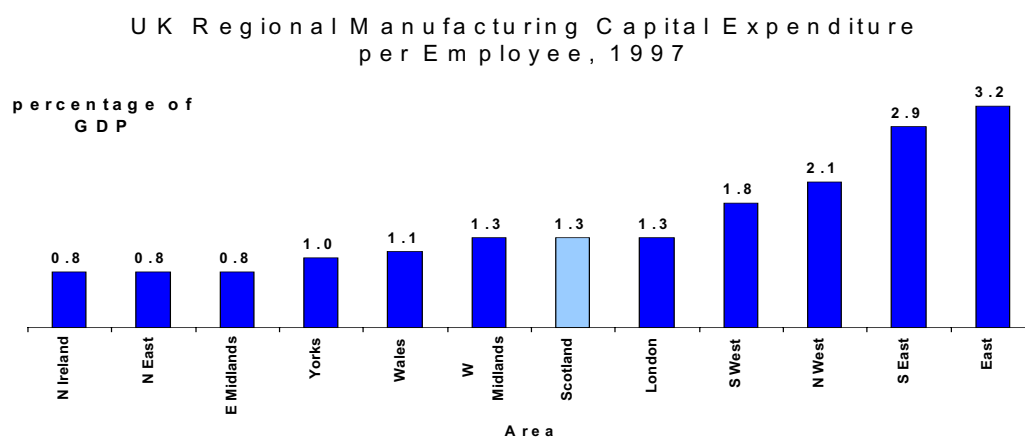
There are two main reasons for the productivity gap between the UK and the other leading members of the EU and the USA. First, there is a large difference in the amount of capital stock invested between the UK (including Scotland) and the EU. Second, in relation to the USA, there is an innovation gap – the application of best management practices, IT and the constant improvement by introduction of new ideas and new processes in to everyday running of companies and businesses.

There are five key drivers of productivity improvement:

- The human capital or skills in both employers and employees;
- Physical investment in the capital stock, including capital equipment and capital infrastructure;
- Innovation – the invention and application of new ideas, new technologies, products and processes;
- Enterprise – the entrepreneurial drive and the growth of new firms;
- The competitiveness of markets.

Higher skilled employers and workers are crucial to the introduction and operation of more sophisticated products and processes. Scotland's level of human skills, while not market leading, is reasonably good albeit in UK terms. Scotland's universities educate and produce a disproportionate number of graduates in the UK – the problem is that too many of these graduates leave Scotland. This is brought into sharp focus in the North-East of England with the proportion of graduates in the workforce less than one third the level in London.

Low Investment

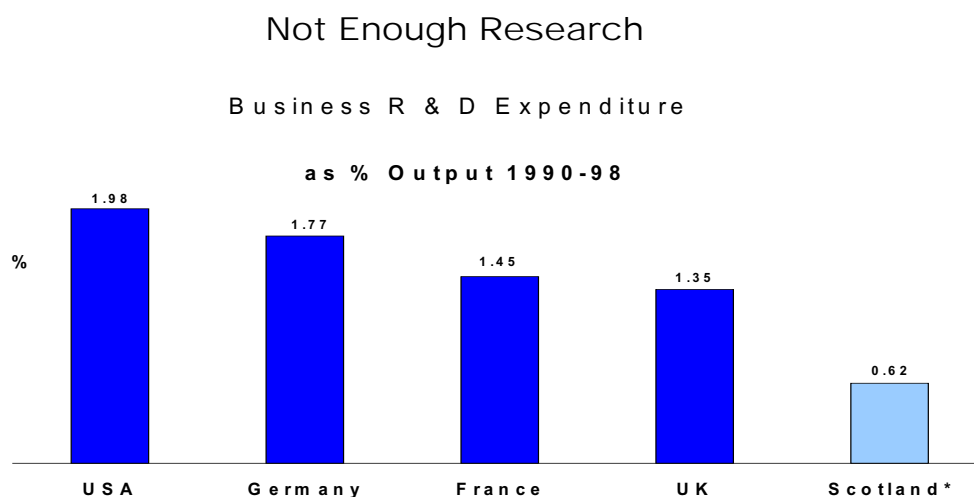


Source: Goudie (2003).

The long standing problem of under-investment in the UK and Scottish economies is highlighted by the huge disparity in capital stock per hour worked. This is around 50% higher in the USA and Germany compared to the UK and around 75% higher in France reflecting generations of persistent under-investment. The chart above shows UK regional manufacturing capital expenditure per employee in 1997.

Scotland comes half way down the chart but it is clear that the high growth parts of the UK such as the east and south east of England have significantly higher capital expenditure per employee.

Innovation accounts for around two thirds of UK economic growth. Research and development (R&D) is a precursor of productivity improvement and higher economic growth. Again, Scotland performs poorly. The chart below shows R&D expenditure by business as a percentage of output from 1990 to 1998 for five countries.



Source: Crafts and O'Mahony (2001) and DTI (2001)

*1995 - 99

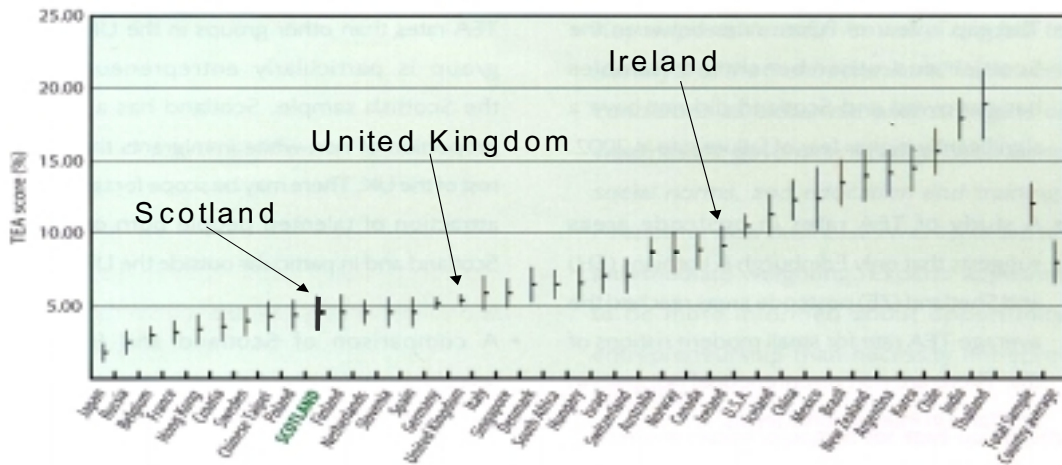
Compared to the level of 1.98% of output in the USA, Scotland only returns a level two thirds of that at 0.62%. Another major disparity exists with the number of patent applications. Per one million population, the results for six countries show Scotland with an inferior performance to neighbouring Ireland, lower than the UK and significantly behind France and Taiwan. Looking at European patent applications over the period 1998-2000 shows an average per 1m population for the EU 15 of 140 against an average for Scotland of 77.3. All these figures suggest that insufficient attention is being paid to the application of knowledge in business in Scotland.

New Business Formation

Some commentators believe the creation of new businesses accounts for as much as half of the difference in economic growth rates between economies. The following results from the Global Entrepreneurship Monitor (GEM) show the results for total entrepreneurial activity of which new business starts is a major component.

Too Tim'rous to Take the Plunge

New Business Activity



Source: Global Entrepreneurship Monitor Scotland (2002).

The results for 38 countries show Scotland near the bottom with the UK in the bottom third while the Irish Republic occupies a position near the top third. In start-ups per 10,000 resident adults, the rate in Scotland is around half that of London resulting in a business density of VAT registered businesses per 10,000 population of just under 300 compared to nearer 500 in London.

The gap between the Scottish economy's 'tim'rous beastie' performance and that of the Irish 'Celtic tiger' is significant. The table below shows a comparison of both demographic and entrepreneurial variables for Scotland and Ireland.

The Real Celtic Tiger

Scotland and Ireland Comparison of demographic and entrepreneurial variables

	<u>SCOTLAND</u>	<u>IRELAND</u>
2002 TEA rate, % of working age adults	4.6	9.1
Know an entrepreneur, % of working adult age	21	47
Informal investment rate, % of adults 18 or over	0.8	3.3
Population annual average growth rate, % 1996-2002	-0.001	1.2
Average annual natural increase (births over deaths) 1996-2002	-3,000	23,000
Net average annual immigration, 1996-2002 (thousands)	0	26,000

Source: Global Entrepreneurship Monitor Scotland (2002).

The Irish total entrepreneurial activity (TEA) rate expressed as a percent of working age adults is double the Scottish rate. Similarly, more than

twice the number of adults of working age know an entrepreneur in Ireland compared to Scotland while the informal investment rate of adults investing in the business in Ireland is over four times that of Scotland. One end result of this is that the Irish population's annual average growth rate between 1996-2002 is 1.2% compared to a decline every year in Scotland. This decline comes from a combination of emigration and a low birth rate. From the period 1996-2002, births exceeded deaths in Ireland every year by 23,000 whereas by contrast in Scotland deaths exceeded births by 3,000. The Irish are also returning home - net average annual emigration for the same period was 26,000 per annum in Ireland compared with zero in Scotland.

From Tim'rous Beastie to Tartan Tiger?

The reasons behind Scotland's disappointing economic performance are a lot easier to elucidate than solve. Analysis is much easier than solution. However, the degree of intra-UK differences clearly point to solutions tailored for Scotland. The Scottish Parliament through its devolved powers is able to influence many of the policy levers required to reverse Scotland's mediocre economic performance. But they are not sufficient. Only by making the Scottish Parliament responsible for raising the tax it spends will the linkage between the Scottish Parliament and the Scottish economy be enhanced to a credible level. Fiscal devolution should match political devolution.

Policies to promote R&D by a Scottish R&D tax credit would be feasible under fiscal devolution but not under the current regime. But even before this stage there is a pressing requirement for a political consensus on the need to improve Scotland's economic performance. There is no committee in the Scottish Parliament devoted solely to the economy - this has been left so far to the single-handed efforts of a handful of MSPs. Is this a reflection of the importance attached to the economy by the Scottish Parliament?

Achieving consensus on the need to improve Scotland's economy will be a major achievement for Scotland's MSPs and politicians. But if fiscal devolution allows solutions tailored for Scotland, then it is right that Scotland's politicians will look to the business community for a response. Businesses create wealth not governments. Scotland's business community must be persuaded of the benefits of higher investment and higher spending on research and development coupled with further commercialisation of academic knowledge.

A pre-condition for the Irish Celtic tiger was not just the recognition of Ireland's dire economic situation 30 years ago but the subsequent formation of the political will to do something about it. Scotland should take note.

Professor Donald MacRae is Chief Economist of Lloyds TSB Scotland.