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# Outlook and appraisal

## Overview

**Strong growth in the second quarter suggests that the Scottish economy has recovered from the doldrums of the previous three quarters. A rebound in service sector performance was the main reason. Manufacturing remains weak, although the sector has exhibited some positive growth over the last three quarters. Electronics production continues to contract in Scotland, whereas this is not the case in the UK as a whole. Financial and business services are leading the recovery in Scottish services, supported by retail and hotels & catering.**

**Analysis of Scotland's GDP per head performance during the 1990s and the first two years of the current decade, highlights Scotland's relatively weaker productivity performance when compared to the UK. But Scotland also appears to have enjoyed a better labour market performance with a rising employment rate and movement of the population into the labour force contributing more to the growth of GDP per head than in the UK. This analysis highlights the productivity challenge facing Scotland. But it also emphasises the importance of migration and population enhancing policies to prevent a declining population from eroding many of the opportunities for future GDP per head growth.**

**UK growth weakened unexpectedly in the third quarter and we expect this also to occur to some degree in Scotland. Mixed signals are coming from the world economy. World trade is growing rapidly but the US economy appears to be slowing as it begins to adjust to its twin budget and current account deficits. A slowdown in the rate of growth of US domestic demand and a weakening dollar will affect the competitiveness of the Euro and UK economies and may serve to slow growth. Overall, growth in the world economy would appear to have peaked. We are therefore forecasting growth in Scotland of 2.1% in 2004 falling to 1.9% in 2005. But with little labour cost pressures and strong service sector growth net job creation will continue at low rates of unemployment.**

### **GDP and output**

The Scottish Executive published the GDP statistics for the second quarter of this year in late October. Scotland's growth performance strengthened appreciably during April to June according to these latest estimates. Quarterly growth rose to 0.9% from 0.2% in the first quarter. With the UK recording growth of 0.9% in the second quarter, the Scottish economy can clearly be seen to have recovered from its weakness relative to the UK during the previous three quarters (see Figure 1a). But weaker Scottish performance over the year as a whole led to GDP growth over the last 4 quarters of 1.8% compared to 2.8% in the UK. These changes reflect a positive rebound in the performance of the service sector in Scotland while manufacturing remains weak.

The latest data embody significant revisions to the previously published set of GDP estimates. The second quarter growth figures have been computed using industry weights for 2001 compared to weights for 2000 in the previous quarter's estimates. Both the Scottish and UK GDP series are now computed using a chain-linking methodology, where industry weights are changed annually and not kept constant for at least 5 years as under the old fixed-base methodology. This is an altogether more accurate procedure for estimating aggregate GDP growth, since due weight is given to the changing structure of industry in aggregating industry growth rates. In a paper published by the Scottish Executive alongside the second quarter figures, the contribution of updated weights has a relatively minor impact on the revisions. What is shown to be more important are a number of changes designed to improve the quality of the series.<sup>1</sup> As Figure 1b reveals, the effect of the revisions on the estimates of quarterly GDP is sizeable. Growth is clearly stronger from 2002 than under the previous estimates and is slightly stronger for the whole

period that data are published. Quarterly GDP growth for Scotland now appears to have averaged at 0.43% over the period 1998 Q1 to 2004 Q1 compared to an estimated 0.42% prior to the revisions. But even this slight improvement makes the average quarterly Scottish GDP growth still quite away behind the estimate of 0.63% for the UK.

The latest data reveal that the growth of manufacturing remains weak in Scotland. Output rose by 0.4% in Q2, compared to an increase of 1.2% in the UK (Figure 2a). Moreover, over the year comparing the latest 4 quarters with the previous 4 quarters, Scottish manufacturing output contracted by 0.3% while manufacturing output in the UK rose by 1.3%. Figure 2b reveals how the revised data for manufacturing differ from the previous data. While quarterly differences are clearly in evidence there are no systematic differences over recent quarters. However, over the period from 1998 Q1 to 2004 Q1, the effect of the revisions is to reduce the decline in Scottish manufacturing from 0.55% per quarter to 0.52% per quarter.

Within manufacturing, electronics continued to display weak performance with output falling by 0.6% in Q2 and by 1.3% over the year. In contrast, UK electronics grew by 3.1% in Q2 while contracting by 0.4% over the year. Metals turned in the strongest performance growing by 3.8% during the quarter but reducing output by 3% over the year. A better quarterly performance than growth in UK metals of 2.4% but a worse performance over the year than its UK counterpart, which contracted by only 0.5%. Of the nine other manufacturing sectors for which the Scottish executive publishes quarterly GVA volume data, only chemicals and textiles, footwear, leather & clothing outperformed their UK counterparts in the latest quarter,

while petroleum products & nuclear fuel, food, drink, and transport equipment performed better in Scotland than in the UK over the year.

Scottish services returned to robust growth in the second quarter, with GVA rising by 1.2% compared to growth of 0.9% in UK services (Figure 3a). However, with weak performance in the third and fourth quarters of 2003 and the first quarter of 2004 Scottish services grew by only 2% over the past 4 quarters compared to growth of 3.2% in UK services. Figure 3b reveals that the latest revisions, while tending to raise slightly the performance of services in Scotland over the previous 4 quarters have no systematic effect over the longer term. The quarterly average rate of growth between 1998 Q1 and 2004 Q1 remains the same at 0.69% both before and after the revisions.

Within services, financial and business services remained strong in the second quarter growing at 3.8% and 1.3%, respectively, compared to growth of -0.5% in UK financial services, with no data presently available for UK business services. Annual growth figures for financial services and business services in Scotland amount to 6.2% and 3.5%, respectively over the latest 4 quarters, with UK financial services growing by 4.4%. Retail & wholesale (2.8%) and hotels & catering (2.1%) outperformed their UK counterparts in the second quarter but were weaker over the year growing by 1.9% and 0.8% respectively, compared to growth of 4.1% and 4.2% in the sectors in the UK.

### Further insights into Scottish economic growth

The publication by the Office of National Statistics (ONS) at the end of April of updated estimates of regional gross value added for Scotland and other UK regions allows further insights into Scotland's economic growth in the 1990s and the early 2000s. The ONS data<sup>2</sup> allow GDP per capita, or "prosperity growth", to be decomposed into productivity growth and improved use of labour resources. Specifically, GDP per head can be shown to be the product of GDP per worker, the employment rate, and the proportion of the population that is of working age i.e.

$$\text{GDP/POP} = \text{GDP/EMP} * \text{EMP/WPOP} * \text{WPOP/POP}$$

Where GDP/POP = GDP per head  
 GDP/EMP = GDP per employee, or labour productivity  
 EMP/WPOP = employment rate  
 WPOP/POP = proportion of population of working age, or 'inverse dependency ratio'

Between 1990 and 2002 GDP per capita grew at an annual average of 1.68% in Scotland and 2.02% in the UK. To the extent that comparisons are possible this would place the UK in the second quartile and Scotland in the third quartile of 26 OECD countries, with both countries displaying

middling growth performance. Irish growth, rapidly converging towards average EU prosperity, was 6.4% a year and Switzerland's 0.2%. Figure 4 shows that the breakdown of growth in Scottish and UK GDP per head of population differed considerably over the period. While GDP per employee rose by 2.01% per annum in the UK, Scottish labour productivity grew at an average of just 1.29% each year. However, the Scottish economy appears to have made better use of its labour force and indeed its available human capital than did the UK.<sup>3</sup> The Scottish employment rate rose by 0.27% per annum, while the ratio of its working to total population grew by 0.12% each year. In the UK labour market, the employment rate fell slightly by 0.06% per annum, while the working population ratio rose slightly by 0.07% each year.

The economic history of the 1990 to 2002 period suggests that a decomposition of the data into sub-periods would be illuminating. In the early 1990s Scotland, unlike the UK, avoided a recession and successfully attracted many mobile investment projects. Over the period 1990 to 1995, on the ONS data, Scottish GDP per head grew by 1.97% per annum, with the UK only managing 1.59% per year. In the second half of the decade, the UK economy recovered strongly and annual GDP per head growth rose to 2.8% while Scottish GDP per head growth eased to 1.69% per annum. But for Scotland there was worse to come. After 2000 ICT sectors worldwide went into recession, the global economy slowed and electronics production in Scotland almost literally collapsed.

There is some justification in arguing that the period 1990 to 2000 represents a more normal basis for a comparative analysis of Scotland and the UK, while during the period 2000 to 2002 circumstances were extreme and untypical.

Figure 5 analyses the components of GDP per head growth in Scotland and the UK over the period 1990 to 2000, while Figure 6 performs the analysis for the period 2000 to 2002. Between 1990 and 2000 UK GDP per head grew at 2.19% per annum with Scottish annual average growth lower at 1.83%. During the ICT downturn Scottish GDP per capita growth fell from an annual average of 1.83% in the 1990s to 0.92% while per capita GDP growth in the UK fell from 2.19% to 1.2%. So, before the ICT downturn Scottish "prosperity growth" averaged 84% of the UK figure, while after the downturn it averaged 77%. But the differences in the components of GDP per head growth between the two periods were even more dramatic. While UK labour productivity growth faltered, dropping to 0.97% a year in 2000-2002 from 2.22% in the 1990s, the growth of Scottish labour productivity ceased, falling by 0.08% a year compared to an annual average rise of 1.56% during the 1990s. Growth in Scotland was positive during the period 2000-2002 because of improved labour utilisation; the employment rate rose by an average of 0.83% each year and the working to total population rate rose by 0.17% a year.

## What can we conclude?

First, Scotland's labour productivity performance (growth of GDP per person employed) over the past decade appears to have been weaker than in the UK. Putting this into the context of 26 OECD countries, with labour productivity growth ranging from 0.7% (Switzerland) to 4.6% (Luxembourg<sup>4</sup>), the UK lies in the second quartile and ranks 9<sup>th</sup>, while Scotland would be in the third quartile, ranking 16<sup>th</sup>. Yet during the early 1990s Scotland attracted much inward investment, which undoubtedly boosted productivity growth. However, Scotland appeared to be undergoing a form of catch-up in the labour market during the 1990s as the employment rate and working population rate rose both absolutely and relative to the UK. Moreover, increased labour utilisation and labour productivity growth may to a degree be negatively related. This reflects the fact that the people taken into employment as utilisation rises generally have lower education levels and thus probably lower productivity than those already in employment.<sup>5</sup> Another factor perhaps dampening productivity growth was the strong performance of the service sector, in the latter part of the period at least.

Secondly, the fall in productivity since 2000 appears nonetheless to be largely the result of the loss of FDI, the contraction of manufacturing and the loss of electronics production in particular. This also highlights the apparent lack of significantly favourable externalities or spillover effects from FDI to domestic business activities. The relative productivity of foreign manufacturing plants in Scotland was on average 1.8 times greater than their Scottish counterparts, and much more so in food and drink, and in electrical and optical engineering.

Thirdly, improved labour utilisation has been important to Scottish economic growth but it has limits as a source of growth. The most obvious limits are the size of population and its age composition. During the 1990s, Mexico, Korea, Turkey and Ireland all enjoyed a significant boost to growth from favourable demographic factors, with Ireland also reversing its long-term trend of net outward migration. But increasingly population growth in Scotland (and many other OECD economies) is slowing and the share of persons above working age rising.<sup>6</sup> In Scotland, the significance of population trends is much debated, particularly when the character of outward migration is analysed. The net outflow of Scots has now halted, but Scotland is still somewhat behind several other OECD economies in attracting migrants. Moreover Scotland's population is still forecast to both fall and age with one of the lowest birth rates in Europe.<sup>7</sup> On current projections Scotland's population is forecast to fall below the psychologically important figure of 5 million in 2017. This decline, of near 15%, in the next 50 years, is comparable to the prospect facing some other developed nations such as the Czech Republic and Japan, and lower than the decline predicted for Switzerland (-19%) and Italy (-22%). It is unlikely indeed that demographic trends and utilisation of labour could bring about a significant improvement to Scotland's trend growth rate.

Hence, the challenge facing the Scottish economy is how it can best improve its rate of growth of productivity. However, in the Scottish context migration and population enhancing policies are also worth pursuing. The absolute growth of GDP and the rate of growth of GDP per head need not be related due to independent changes in the level of population. But a country with a shrinking population may be less successful in raising GDP per head, because markets are thinner, spillovers are less and there are fewer opportunities for productive entrepreneurship.

## Outlook

Growth in the world economy continues to be robust with world trade forecast to rise by 9% this year and 10% next year (see World Economy section). US and Japanese growth remains strong, while Chinese growth has slowed slightly and Euro area growth is weak. Growth in the US is expected to slow next year from just over 4% to just above 3%, while Euro area growth is expected to pick up to just over 2%. While, on balance, growth appears to be weakening inflationary pressures are strengthening. Oil prices have been above \$50 per barrel and are expected to hold up in the \$30 to \$35 range in the medium term. Imbalances in the world economy and especially the US economy, with its large budget and current account deficits, continue but are unsustainable in the longer term. US domestic spending can be expected to fall, with the dollar weakening affecting the competitiveness and export performance of the Euro and UK economies.

Growth in the UK economy faltered in the third quarter of this year, with output rising by only 0.4% compared to 0.9% in the second quarter. The main reason for the slowdown appears to be a reversal of the fortunes of manufacturing, with the overall production sector – for which manufacturing contributes 79% – contracting by 1.1% after growing by 1.2% between April and June (see UK Economy section). We take the view, with hindsight, that the MPC raised rates too early in May and this may have contributed to the weaker performance of manufacturing in the third quarter. Nevertheless, independent forecasters are on average predicting that UK growth will be 2.5% in 2005, somewhat lower than the expected outturn of around 3% this year. The labour market continues to perform well with employment rising steadily and CPI inflation is forecast to be 1.5% this year and 1.8% in 2005 below the 2% target.

Data are not yet available for Scottish GDP growth in the third quarter. The slowdown in UK growth in the third quarter appears likely to occur in Scotland. This is to some extent supported by the latest business surveys for Scotland, which reveal falling confidence levels in manufacturing and retailing. While positive growth is anticipated in both third and fourth quarters some slowdown is expected.

Against this background, we predict that GDP growth in Scotland will fall to 0.5% in the third quarter, slightly faster

than reported UK growth, with Scottish growth picking up again to 1% in quarter 4 as manufacturing takes advantage of expanding world markets. Our forecast for GDP growth for this year is therefore 2.1% a slight revision downwards of our forecast in August of 2.2%. For 2005, we expect a further slackening of growth to 1.9% compared with our earlier forecast of 2%. In August we scaled back our forecast for 2005 to accommodate the slowing of UK domestic demand and the growing uncertainties in the world economy including higher oil prices. Today we retain much the same view about conditions in next year, although we are somewhat less sanguine about the performance of the UK economy, which accounts for the small downward adjustment to the forecast.

Despite some of the steam beginning to run out of the UK's and Scotland's economic recovery, we still expect relatively buoyant conditions in the labour market. Wage inflation continues to be moderate with pay settlements from the recent Scottish Chambers Business Survey ranging from 3.6% in retail to 5.7% in construction. Allowing for normal productivity growth the cost of labour is not presently a discouragement to taking on new workers. We therefore expect net job creation of around 23,000 this year and 29,000 in 2005. But manufacturing will continue to shed jobs, with the bulk of new job creation concentrated mainly in the service sector with net new jobs also being created in construction. The employment rate is currently at 75.0%, higher than the UK's 74.7% and we expect this to rise to around 77% over the medium term. In consequence, unemployment is set to remain low, at 5.5% in 2004 and 5.1% in 2005 on the ILO measure and 3.6% and 3.3% respectively on the claimant count.

**Brian Ashcroft**  
8 November 2004

## Endnotes

1. "Sources of Revision to GDP Estimates for 2004 Q2", Scottish Executive, October 2004.
2. The GVA growth estimates for Scotland derived from this source use estimates of income and to some extent differ from the Scottish Executive's GDP estimates, which measure GVA volume growth.
3. It is possible that the contribution of labour productivity to growth is understated in this analysis because we are considering GDP per employee and not GDP per hour worked. Average hours worked have tended to fall in OECD countries in recent years. However, this is not the case in Scotland where in 2002 the average for all workers was only marginally lower than in 1993 at 33.3 hours compared to 33.7 in 1993, Scottish Economic Report 2004, and Scottish Executive.
4. After Luxembourg, Korea (4.5%), Ireland (3%), Finland (2.9%), Sweden (2.5%) and Turkey (2.5%) were the top six labour productivity growth performers. OECD, 2003 *ibid*.
5. See for example *The Sources of Economic Growth*, OECD 2003, p. 35.
6. OECD 2003, *ibid*.
7. In 2002, Scottish fertility reached an historic low. The total fertility rate (TFR) fell to 1.48 births per women. Scotland is now a very low fertility country on academic definitions with a TFR below 1.5%. Scotland's TFR is now below Ireland, France, Northern Ireland, Denmark, Finland, Netherlands, Belgium, the rest of the UK and Sweden. It remains above Germany, Spain and Italy. Since a TFR of 2.1% is the rate required for population replacement in the absence of migration, the shortfall has provoked worries about Scotland's demographic future.

Figure 1a: Scottish and UK GDP, Quarterly Growth at constant basic prices, 1998q2 to 2004q2

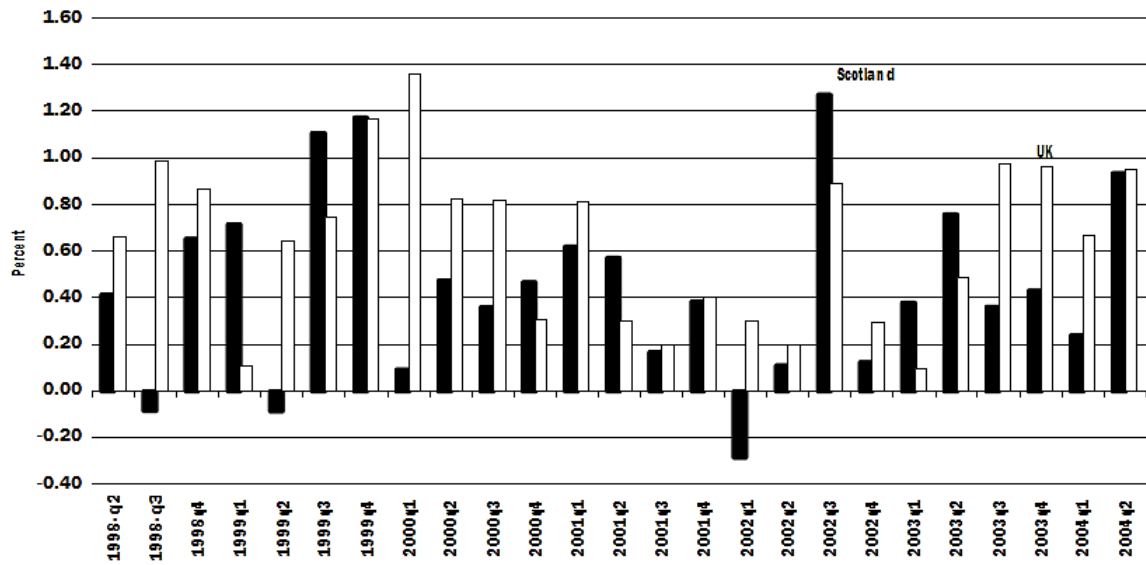


Figure 1b: Quarterly Scottish GDP Growth on 2004 q1 data and 2004 q2 Revisions

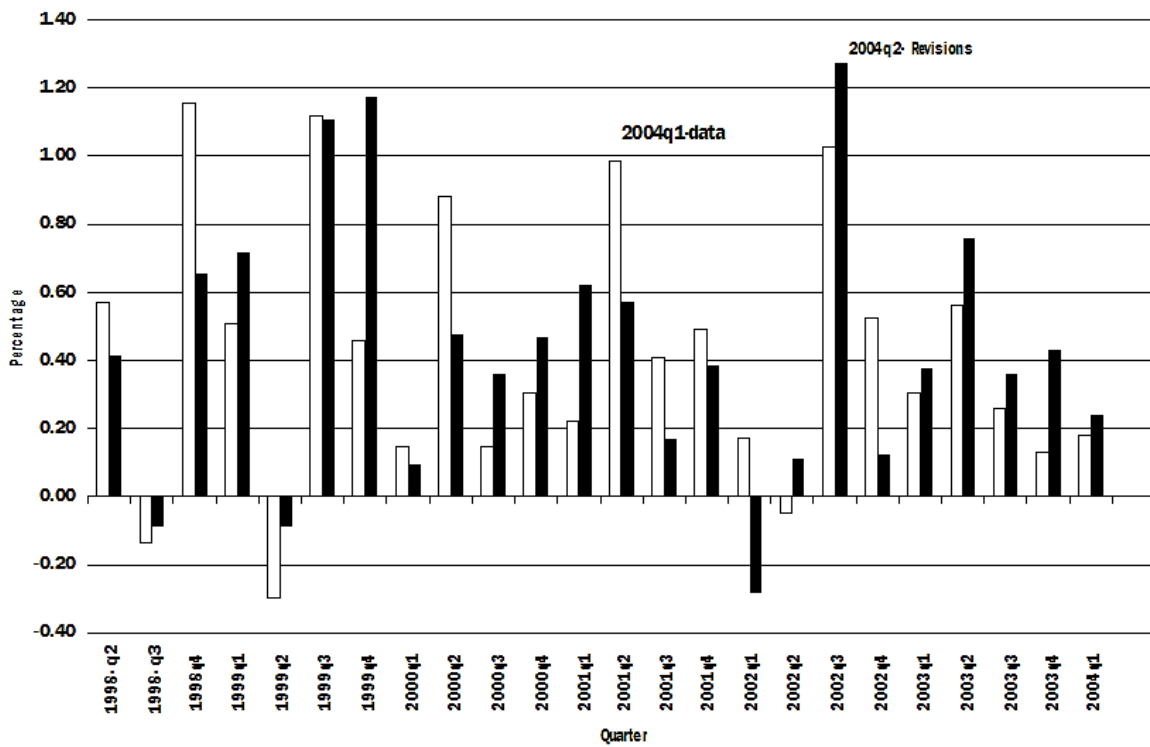


Figure-2a: Scottish and UK Manufacturing Sector GVA Growth at constant basic prices 1998q2 to 2004q2

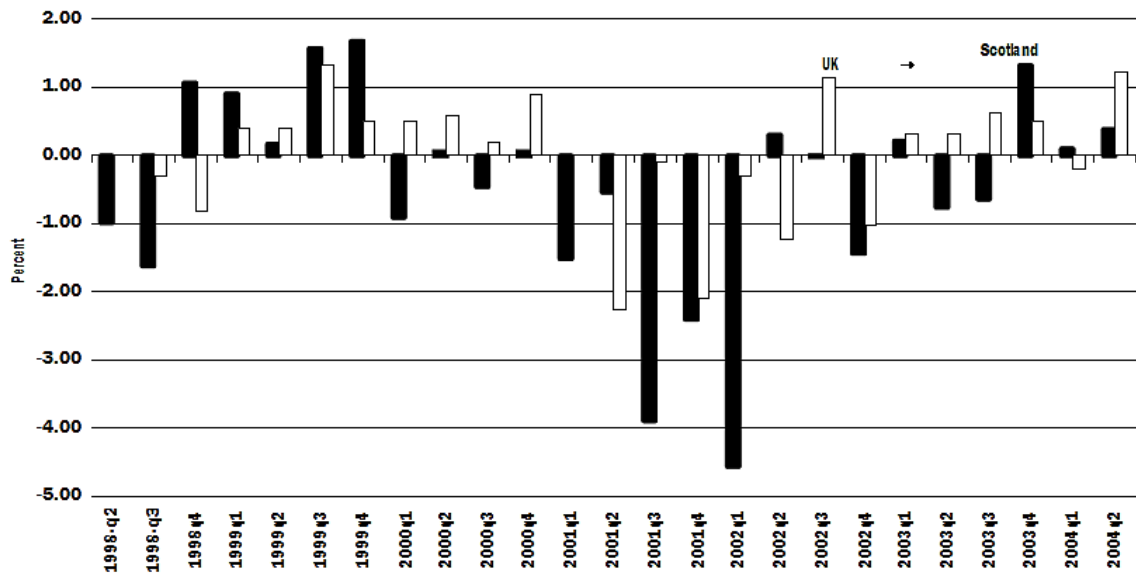


Figure-2b: Quarterly Scottish Manufacturing GVA Growth on 2004 q1 data and 2004 q2 Revisions

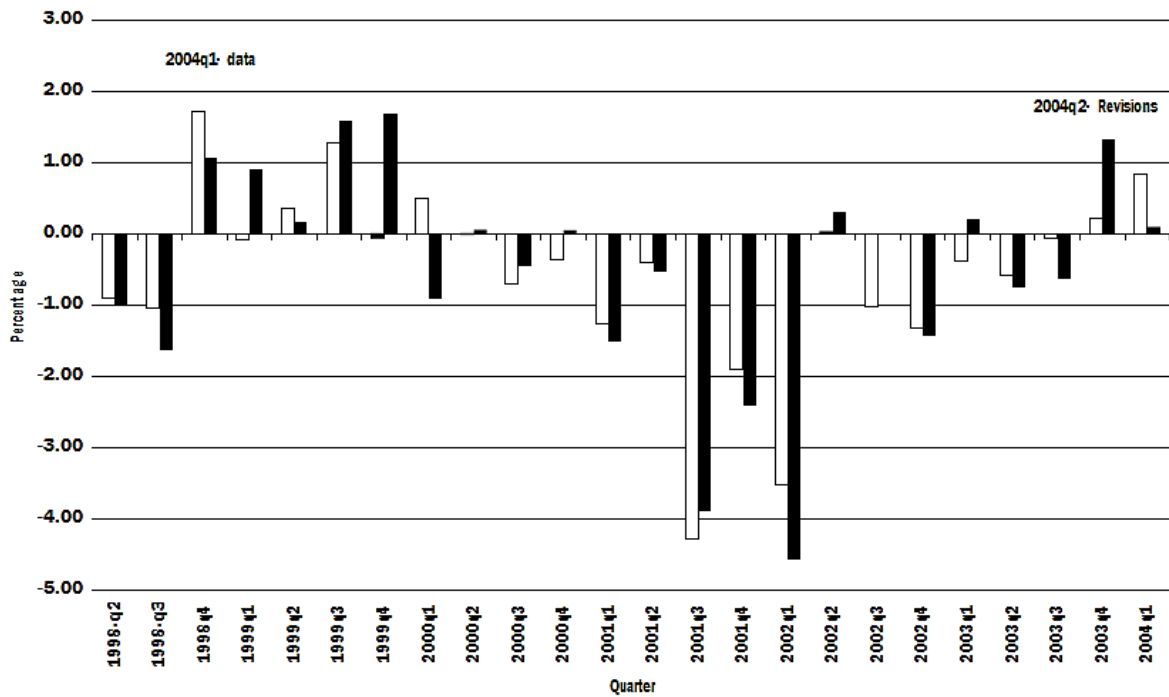




Figure-3a: Scottish and UK Service Sector GVA Growth at constant basic prices 1998q2 to 2004q4

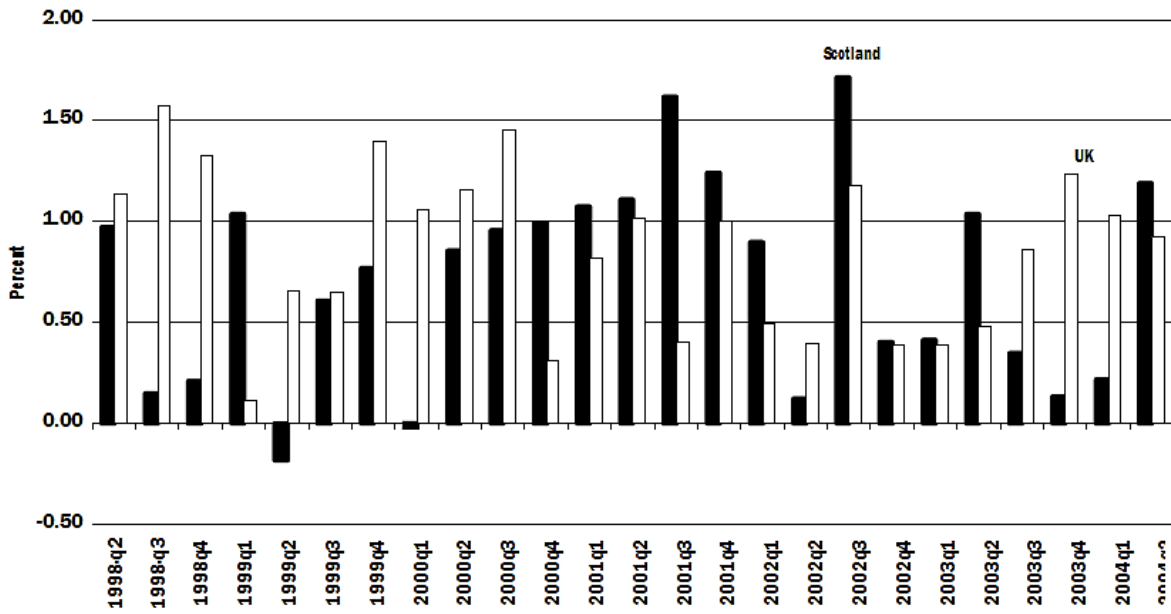


Figure-3b: Quarterly Scottish Services GVA Growth on 2004 q1 data and 2004 q2 Revisions

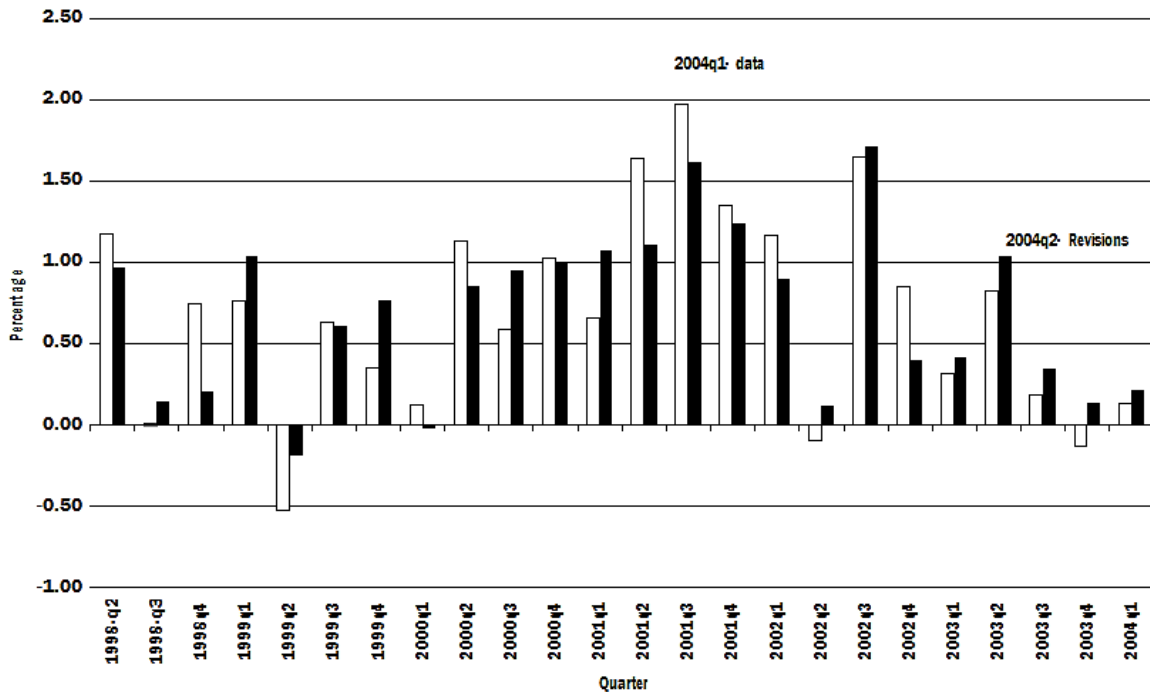


Figure 4: Components of GDP per capita growth 1990 – 2002. Average annual percent change

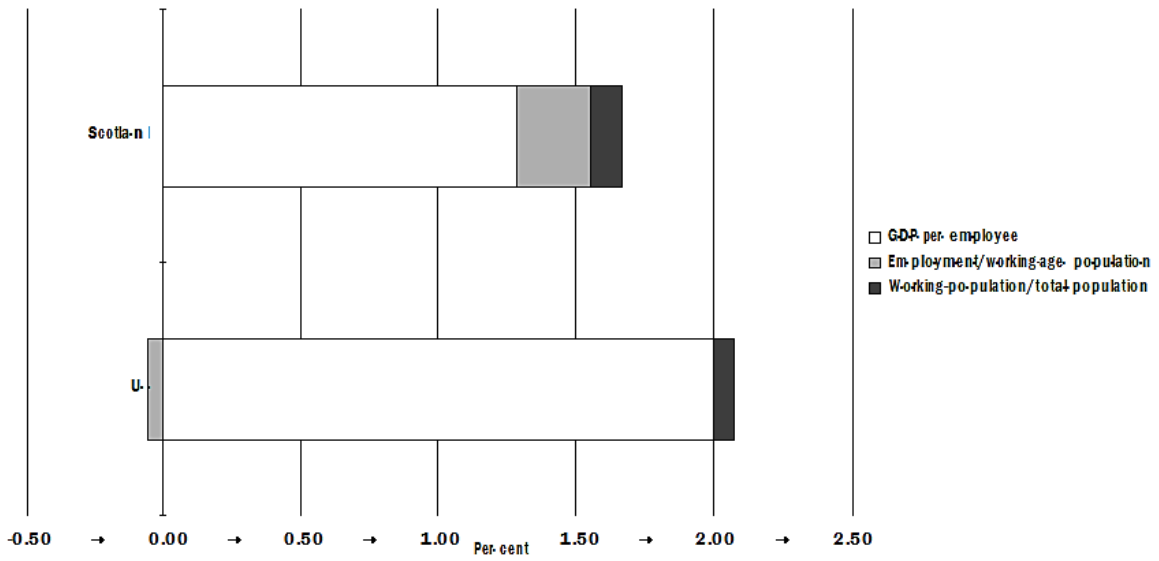


Figure 5: Components of GDP per capita growth 1990 – 2000. Average annual percent change

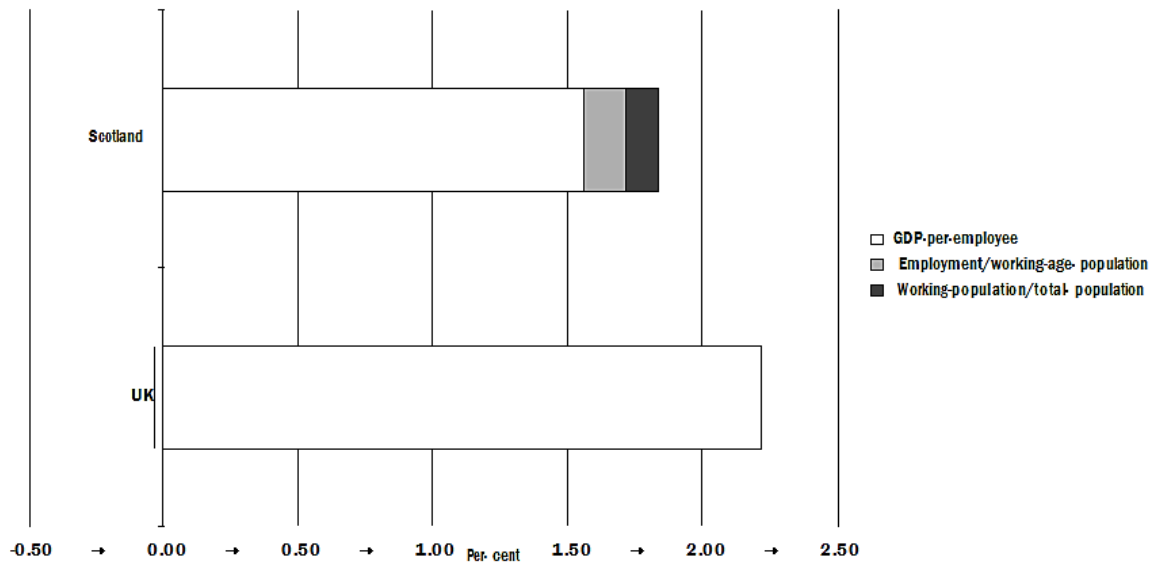


Figure 6: Components of GDP per capita growth 2000-2002. Average annual percent change

