

***ANALYSIS OF THE SCOTTISH GOVERNMENT PUBLICATION – GROSS DOMESTIC PRODUCT FOR SCOTLAND FOR THE 1<sup>st</sup> QUARTER OF 2008***

HEADLINES

**Latest Figures**

- **Growth for Scotland in the first quarter of 2008 was 0.3%, the same as the UK. Based on the last 12 months, Scottish growth was 2.3% (between 2007.Q1 and 2008.Q1) while growth was 2.2% in the UK.<sup>1</sup>**
- **The bad news was the third fall in the last four quarters in Financial Services and particularly in Banking. A slowdown of some sort might have been expected but the recent trend (see Figure 2) is in stark contrast with the UK picture. This led to the slowest quarterly growth in the Scottish economy since the first quarter of 2005.**
- **Further ‘bad news’ is the decline in public service outputs (excluding health); in the last 12 months public administration and defence has fallen by –3.6% and education by –0.5% in Scotland (the comparable figures for the UK are –1.1% and +1.2%, respectively). Only in Health has Scotland outperformed the UK (with 3.6% growth in the last 12 months compared to 2.4% growth in the UK as a whole).**
- **It is not clear why there have been such falls in the provision of education and all other government services (except health). The last two Comprehensive Spending Reviews for the UK have provided real increases in resources for Scotland, which have translated into apparently significant declines in outputs (apart from health) especially since 2007.Q1.**
- **The good news is that due to growth in other sectors, (principally Business services, ‘Other’ services and Hotels and Catering), the Scottish economy did well in comparison to the small EU 7 economies. The Scottish Government have set a target to match their growth by 2017, and Scotland has matched or outgrown them in Q1 2008 in comparison to both Q4 2007 (the EU7 managed +0.3% growth, the same as Scotland) and to Q1 2007 (the EU7 managed +1.6% compared to 2.3% in Scotland). This is in addition to Scotland matching the UK growth rate (the target set by the Scottish Government for 2011).**

**Wider Issues**

- **This analysis takes a closer look at both the Hotels and Catering and Financial Services sectors**

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<sup>1</sup> The Scottish Government calculate growth differently, using the average growth across 4 quarters rather than the point estimate based on the latest quarter matched to the comparable quarter in the previous year (as here). Hence their figures for Scotland and the UK in the last 12 months are 2.1% and 2.8%, respectively; we believe using the quarter-to-quarter data is more up-to-date. ( See Table 1.)

- In the case of the Hotels and Catering there continues to be difficulties in reconciling first non-existent, and more recently rapid growth in GVA over the past decade with other relevant data and with common experience
- For Financial Services there are concerns about recent declines in this sector, although the quality and consistency of the data as a whole, for this increasingly important sector of the economy, leaves a lot to be desired. Neither the employment data, recently revised, nor the Regional Accounts data, with unexplained discrepancies, helps to reassure that the data is robust
- CPPR repeats its request that more resources be made available as the debate around the intended referendum of 2010 needs to be based on a proper understanding of how our economy works and the opportunities and threats that independence or full fiscal autonomy might pose.

**Table 1: GVA by broad sector in Scotland and the UK (based on 2004=100)**

Industry	2004 weight	Annual growth to Q1 2008			Growth in Q1 2008 on Q4 2007		
		Sc	UK	Diff	Sc	UK	Diff <sup>c</sup>
<b>TOTAL</b>	<b>1000</b>	2.3%	2.2%	-0.0%	0.3%	0.3%	0.0%
<b>Agriculture etc</b>	<b>16</b>	-2.0%	1.0%	3.0%	-0.4%	0.7%	1.1%
<b>Production</b>	<b>178</b>	0.5%	0.4%	-0.1%	-0.2%	-0.2%	0.0%
Mining etc	11	-8.5%	-4.9%	3.6%	-1.4%	-4.6%	-3.3%
Elec, gas, water	27	6.1%	1.4%	-4.6%	5.1%	-1.3%	-6.4%
Manufacturing	139	0.2%	0.9%	0.7%	-0.9%	0.4%	1.3%
<b>Construction</b>	<b>68</b>	-3.8%	2.3%	6.1%	-0.4%	0.5%	0.9%
<b>Services</b>	<b>738</b>	3.4%	2.6%	-0.7%	0.5%	0.4%	-0.1%
Retail & wholesale	112	5.0%	3.0%	-2.0%	-0.1%	0.6%	0.7%
Retail	55	6.5%	5.3%	-1.1%	1.1%	1.8%	0.7%
Wholesale & motor vehicles	57	3.7%	0.7%	-3.0%	-1.2%	-0.5%	0.7%
Hotels & Rest's	35	3.0%	0.2%	-2.9%	2.6%	-0.5%	-3.2%
Transport & Communications	74	2.2%	2.5%	0.3%	-1.1%	0.7%	1.8%
Financial Services	83	-10.1%	11.9%	22.0%	-8.3%	4.9%	13.2%
Real estate & Business	193	8.0%	3.7%	-4.2%	2.5%	-0.1%	-2.6%
Public Adm., Ed. & Health	230	0.3%	1.1%	0.8%	-0.1%	0.2%	0.3%
Other services	58	7.6%	4.4%	-3.2%	3.0%	0.8%	-2.2%
FISIM	-47	-9.1%	17.1%	26.2%	-8.8%	5.6%	14.5%

<sup>a</sup> Calculated as  $100 \times (2008.Q1 - 2007.Q1) / (2007.Q1)$  not the annual average over 4 quarters as used by the Scottish Government

## CPPR quotes –

John McLaren commented that *“Although Scottish growth has fallen, these latest figures show Scotland to be performing relatively well, as many expected entering a period of slowdown. Traditionally Scotland has tended to catch-up with, or even overtake, the growth rate of the UK and others during a time of poor economic growth. However, the figures do point to some worrying recent movements in important sectors like Financial Services, Public Services, and Construction.”*

Director of CPPR Richard Harris highlighted that *“Interpretation of Scotland’s relative performance, as the economy is buffeted by difficult world conditions, is made more difficult by real concerns over the quality of the data relating to two of the most important industry sectors – Hotels and Restaurants (and by implication Tourism) and Financial Services. The first has seen no real growth over the last decade, contrary to many other related indicators, and now relatively rapid growth in the last 6 months. Financial Services remains clouded in uncertainty due to data collection problems.”*

### Contacts:

John McLaren: 07851426498

Richard Harris: 07969697224

## SECTORS OF PARTICULAR CONCERN

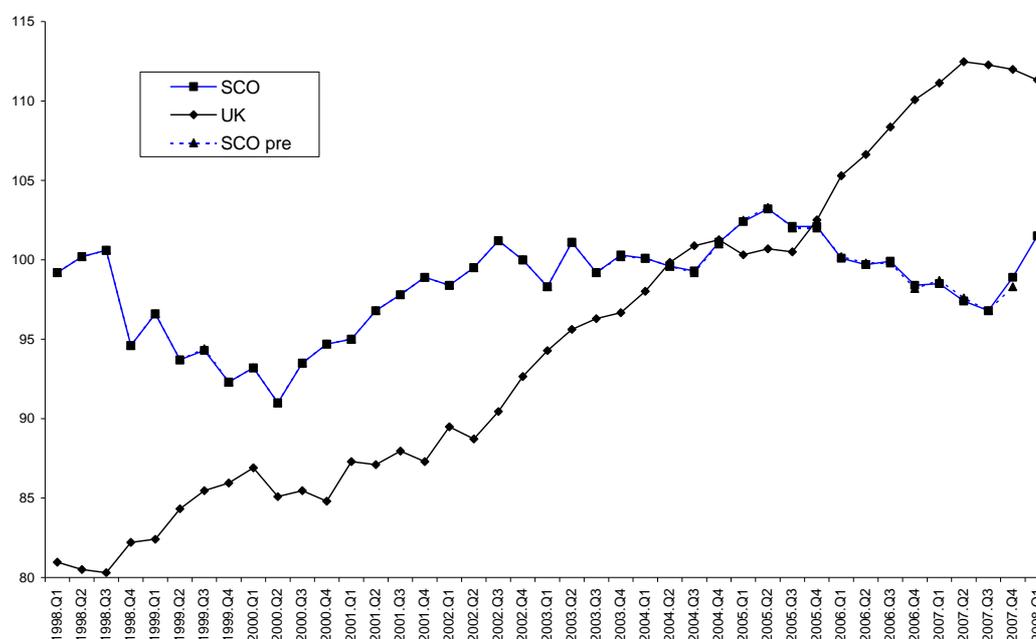
(Note: figures shown in brackets below refer to the percentage share (rounded to the nearest % point) of each sector in terms of total GVA for Scotland, based on 2004 weights)

The following analysis looks in depth at Hotels and Catering and Financial Services. These two sectors are highlighted as there are particular concerns over the data and because these concerns are multiplied when one takes into account that they may be the two most relevant industry sectors where Scotland could be said to have a degree of “competitive advantage”. As such it is important that such an advantage is reflected in the outcomes and in our understanding of trends in these sectors.

### **HOTELS AND CATERING (3.5%)**

Following the relatively good Q4 performance in 2007, this sector has seen further growth of 2.6% in the first quarter of 2008<sup>2</sup> (compared to a fall in the UK of -0.6% in 2008.Q1). Overall, Figure 1 shows that this sector has performed very poorly in Scotland since 1998, compared to the UK, with overall growth of only 2.3% in Scotland compared to the UK level which has risen by 38% since 1998 (see Annex 1). One of the fastest growing industry sectors in the UK has until recently been one of the slowest growing in Scotland. Why, given the flattening-off in the UK, Scotland should now be experiencing relatively rapid growth is hard to understand; we need more explanation as to why Scotland did relatively poorly until the end of 2007, and why in the last two quarters this sector has experienced its fastest rate of growth since 1998.

Figure 1: Hotels and Catering



This is a particularly worrying conundrum with respect to expressed Government views on matching UK growth by 2011. On March 3<sup>rd</sup> 2008 John Swinney stated that

<sup>2</sup> While the 2007.Q1 figure published in April has now been revised upwards.

**“tourism is central to our aim of increased sustainable economic growth”**. This view is reflected in the VisitScotland/tourism industry ambition to grow revenues from tourism by 50% (in cash terms and from its 2006 level of £2.7bn) by 2015.

One would expect the greatest contribution of tourism to be in the Hotels and Catering sector and yet this has until recently been by far the slowest growing service sector in Scotland. (Note: Scottish Government figures for 2005 suggest that nearly two-thirds of tourism spend come under the ‘Hotels and Catering’ heading. Figures for UK only tourists to Scotland suggest that around 50% of expenditure goes on accommodation and eating and drinking.)

Table 2 illustrates relevant tourism related data, which does not appear to be showing up in the Scottish data up to 2007.

Table 2: Scottish tourism data

Measures, years and sources	Total change
Inter’n'l tourists expenditure (2001-2007), ONS-IPS	+60%
Employment (1998-2005, 2001-2006, 1999-2007), ABI, OLS-LMS, IDBR	+14/+12/+3%
No. of business sites (1998-2005), ABI	+7%
No. of enterprises (1999-2007), IDBR	+7%

The above are a mixture of measures and would not be expected to move by similar amounts over the time periods shown. The pertinent point is that they have all increased, suggesting that this sector has seen growth rather than stood still since 1998.

Table 3 illustrates the divergence between the Scottish and UK data in this area; of particular concern is the difference between data based on quarterly GVA and that based on the ABI (Annual Business Inquiry). The latter shows that over 1998-2005 Scotland underperformed on average by only some 1% p.a.; GVA figures suggest that Scotland underperformed by nearly 4% p.a. (during 1998-2007).

Table 3: Hotels and Catering/Restaurants GVA, Scotland and UK

	GVA 1998-2007	GVA 2001-07	GVA 2005-07	RA 98-2004	ABI 98-2005
Scotland	-1%	+1%	-5%	+27%	+42%
UK	+38%	+28%	+12%	+47%	+49%
(Sc minus UK) overall	-39%	-27%	-17%	-19%	-7%
(Sc minus UK) annualised	-3.7%	-4.1%	-8.2%	-2.9%	-1.0%

Note: the GVA data above is in real terms (i.e. excludes inflation) whereas the RA and ABI data is in cash terms (i.e. includes inflation).

**The erratic performance of Scotland’s Hotels and Catering sector remains a mystery. Over the past 5-10 years: employment has risen; both domestic and international tourism have substantially expanded; the corresponding UK sector has boomed: and yet Scottish GVA remained on a flat trend until rapid growth since October last year.**

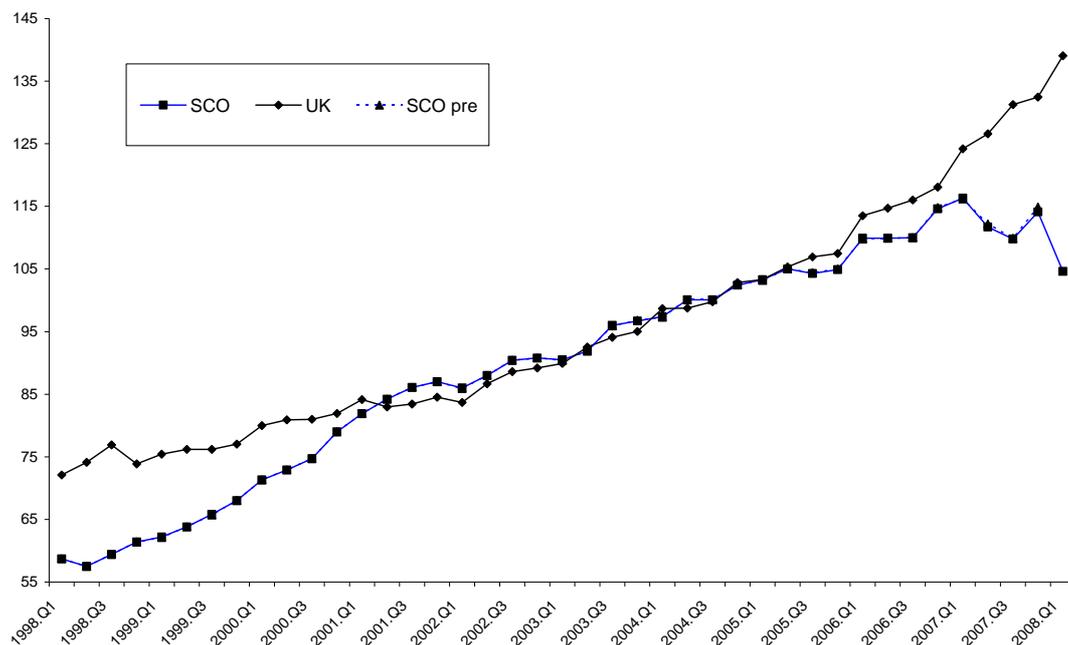
In some senses the past two quarterly rises seen in Scotland only compound the oddity of these figures as recent consumer and tourism trends would suggest a slowing in business in this sector.

This is worrying in the sense that we cannot reconcile the figures and also in the sense that tourism, one of our key industries in terms of potential international “competitive advantage”, does not appear to be contributing to growth in the sector one would most have expected it to.

### FINANCIAL SERVICES (8%)

The picture for Financial Services is both worrying and confusing (Figure 2). Financial services continues to contract in Scotland while seeing strong growth in the UK. In the last quarter (2008.Q1) GDP fell by –8.3% in Scotland (largely due to a fall in Banking of -10.9%) and grew by 4.9% in the UK. Thus since 2007.Q1, this sector has declined by over –10% in Scotland and grown by 12% in the UK (see Table 1), leading to a 22% growth differential in favour of the UK in the last 12 months. It is difficult to understand why there is such a large difference in performance, and thus we outline below some of the difficulties encountered when trying to measure growth in this sector.

Figure 2: Financial services



Financial Services is both a very important sector for the Scottish economy but also one where it is difficult to collect good statistical information for two reasons. First, because the profits/output associated with such Financial Services can be difficult to measure. Second, because it can then be difficult to apportion these profits between countries, especially within the UK.

In Scotland data is collected from different sources for the Banking sector and the Insurance Sector.

Data relating to the banking industry are provided directly to the Scottish Government by the Committee of Scottish Clearing Banks (CSCB) relating to fee and commission and net interest income. This data are supplemented with data received from the Financial Services Authority (FSA) relating to the activities of building societies in Scotland.

The insurance sector is measured using data provided by ONS in which the companies with a Scottish presence are included. The measure used relates to net premiums (premiums, less claims) and is often volatile. There have also been a number of mergers and acquisitions in this industry which can be exceptionally difficult to track through time. For this reason, a panel estimation approach is used in which the main Scottish insurers are tracked and mergers accounted for on a case by case basis.

In order to increase the quality of the data used to measure this sector, the Scottish Government and Scottish Financial Enterprise (SFE) are in negotiations with the Fraser of Allander Institute (FoAI) to conduct research will scope the availability of quarterly indicators of output that may represent an improvement over the indicators used at present.

**Given the difficulty and uncertainty relating to the GVA data, this is an area where reassurance might be sought from alternative sources. Unfortunately such reassurance does not emerge when considering Regional Accounts or employment data.**

On employment, the most recent data stands at around 85,000 jobs. This figure is considerably lower than its peak of over 100,000 in 2005. However, this is due to methodology revisions and the two figures are not comparable, neither are the pre 2006 figures due to be revised. Thus, in terms of employment, we have a snap shot of current employment but little useful data in terms of time-series data.

(Note: According to the National Statistics Methodology Series No. 32 on GDP: output approach (2003), the largest single source weighting used for both Banks (25% of total weight) and Building Societies (30% of total weight) is number of employees. However, this is not the case in Scotland, as discussed above.)

On Regional Accounts (RA) the income based data used to compile the regional figures are currently being overhauled so the most recent data only goes upto 2004. However, the data shows some very odd patterns. In particular, growth in this industry for the UK between 2001 and 2002 was 45% (in cash terms), compared with GVA (Output based) growth for the same year of 4.5% (in real terms). Similarly, for Scotland the RA annual growth to 2002 was 46%, compared with GVA growth of 4.7%. None of these RA figures seem realistic and therefore put into question any information that might be taken from the time-series available from RA.

**As a result it is impossible to gain any reassurance on how well we are currently measuring GVA from Financial Services and how this has grown over time and**

relative to the UK or others. Hopefully the FoAI research referred to above will help improve our confidence in the measurement of this sector.

While the growth in Financial Services has, until recently, been very encouraging, and now is very worrying, our understanding of this growth is very limited. This will always be a difficult sector of the economy to measure but that only highlights the extra effort that needs to go into furthering our understanding and ensuring that GVA estimates are as robust as possible. The sectors increasing importance to Scotland, coupled with the global difficulties in recent months, means that a better idea of the knock on repercussions is warranted, over and above what is currently available. If the FoAI research is not able to supply this greater understanding then alternative routes need to be pursued.

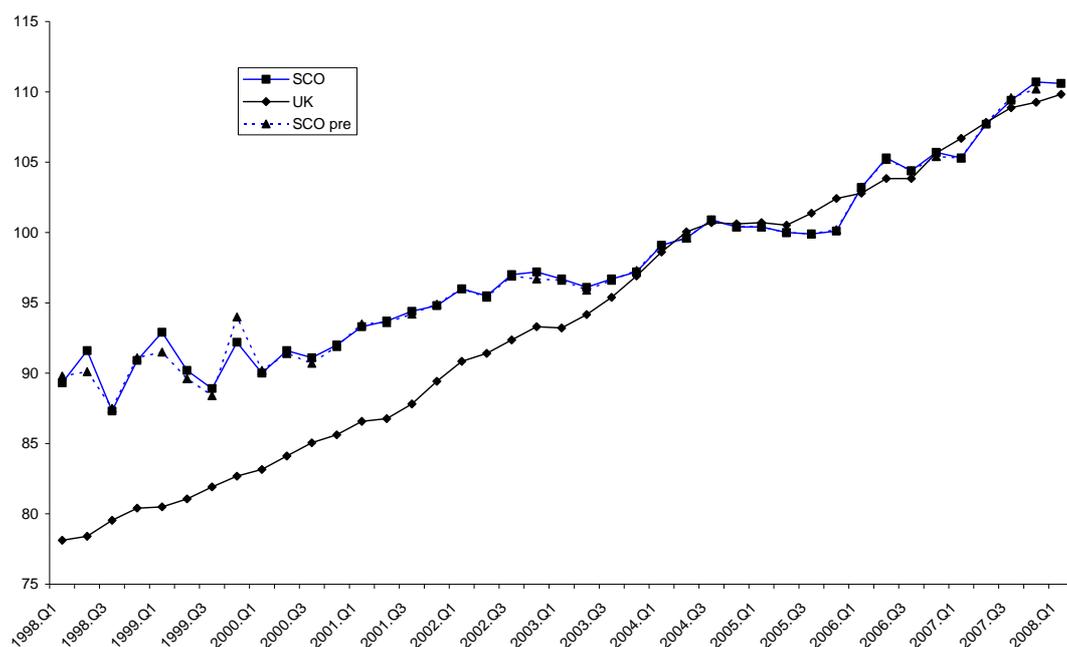
## OTHER SECTORS

The following analysis looks more briefly at those sectors outside Hotels and Catering and Financial Services.

### THE RETAIL AND WHOLESALE SECTOR (11%)

This fast growing sector, barring 2005, experienced a small fall in Q1, whereas in the UK it continues to grow (Figure 3). The Scottish fall was due to the Wholesale sector, while Retail continued to grow by over 1% in Q1. In all, the Retail and Wholesale sector is estimated to have grown by 24% between 1998.Q1 and 2008.Q1 (see Annex 1).

Figure 3: Retail and wholesale



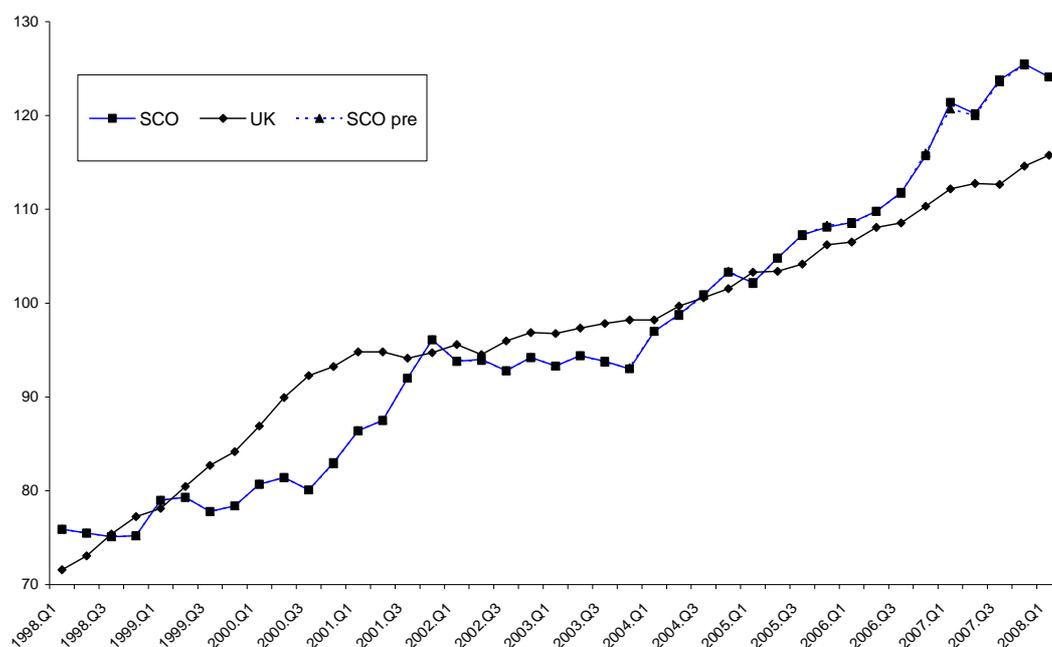
An explanation is still needed for the substantial differences that remain between Scotland and the UK during the period back to 1998. New figures, back to 1995, have recently been obtained by the Executive statisticians but have had little impact.

#### TRANSPORT, STORAGE AND COMMUNICATIONS (7%)

The biggest Scottish success story since 2003 (Figure 4) has been in this sector, rising by almost one third (+32%). This has been in turn driven by a very large increase in Communications (+52%). However, in Q1 Communications growth slowed to +0.4% and the sector as a whole fell by -1.1%.

Communications is the largely unheralded success story of recent Scottish growth, up some 60% on its 2002 level. This is well above the growth rate of Banking in Scotland for the same period and over three times the UK growth rate in Communications. However, it is not exactly clear where this relative Scottish success emanates from.

Figure 4: Transport, storage & communications



#### REAL ESTATE AND BUSINESS SERVICES (19%)

This sector continues to perform well for Scotland, growing by 2.4% in Q1 of 2008. It has consistently been one of the biggest contributors to GVA growth since 1998.

This fast growth in Q1 was in contrast to the small fall seen in the UK.

However, it is such a large sector (almost 20% of total GVA) that it would be useful to have it broken down in greater detail. For example, ONS data for the UK splits this sector into 'Real estate, renting, and business activities' and 'Ownership of dwellings'. This would also be a useful split to have for Scotland.

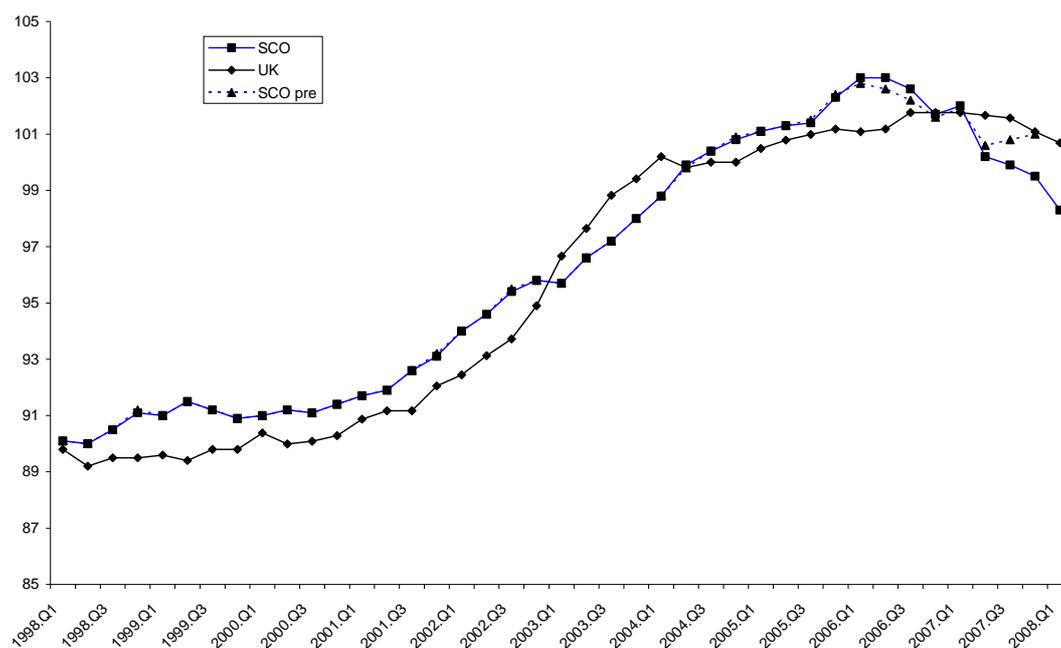
## PUBLIC ADMINISTRATION, EDUCATION AND HEALTH (23%)

For the first time the Public Services sector has been disaggregated into its three main component parts. This allows us to see the relative contributions made to this massive (23%) sector of the economy.

This important sector has performed relatively poorly in Scotland in the last 12 months, up only 0.3% (with a decline of  $-0.1\%$  in the latest quarter – see Table 1). This compares to growth in the last 12 months of 1.1% (and 0.2% in the last quarter) in the UK. When broken down, there has been a fall in both Public Administration and Defence (PAD) of  $-3.6\%$  and in Education of  $-0.5\%$ , offset by an increase of 3.6% in Health. (See Figures 5 to 7).

For the UK two of these three sub-sectors outperformed Scotland in the last 12 months (see Annex 1); growth was 2.6% higher in PAD and 1.7% higher in Education. Only in Health did Scotland outperform the UK – with 3.6% growth compared to 2.4% growth in the UK as a whole.

Figure 5: Public Administration



It is not clear why there have been such falls in the provision of education and all other government services (except health). The last two Comprehensive Spending Reviews for the UK have provided real increases in resources for Scotland, which have translated into apparently significant declines in outputs (apart from health) especially since 2007.Q1.

Figure 6: Education

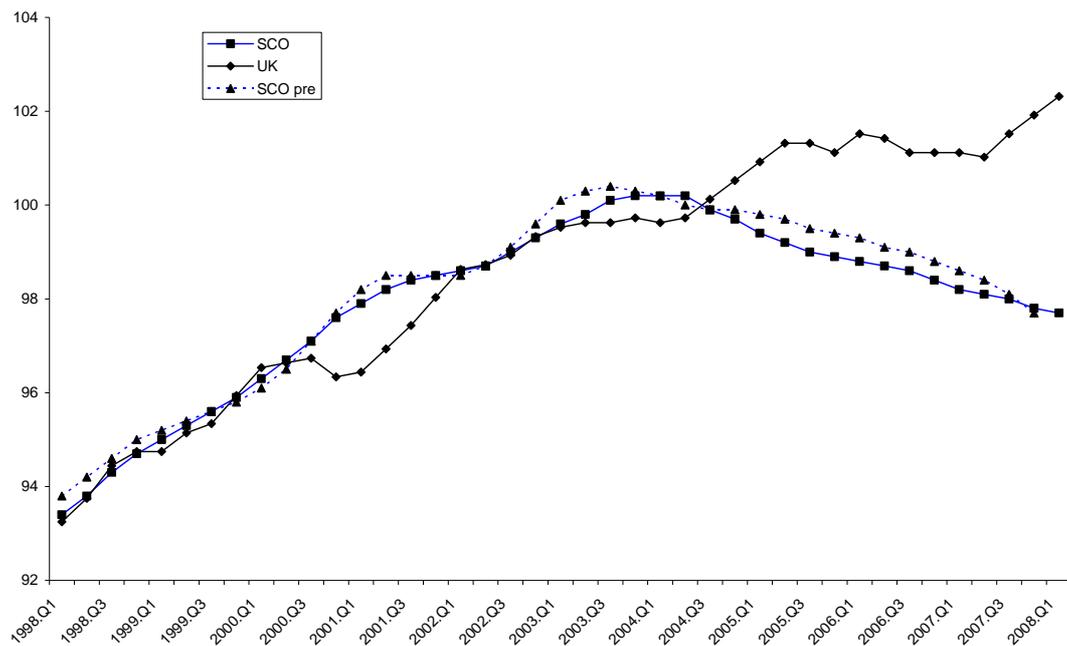
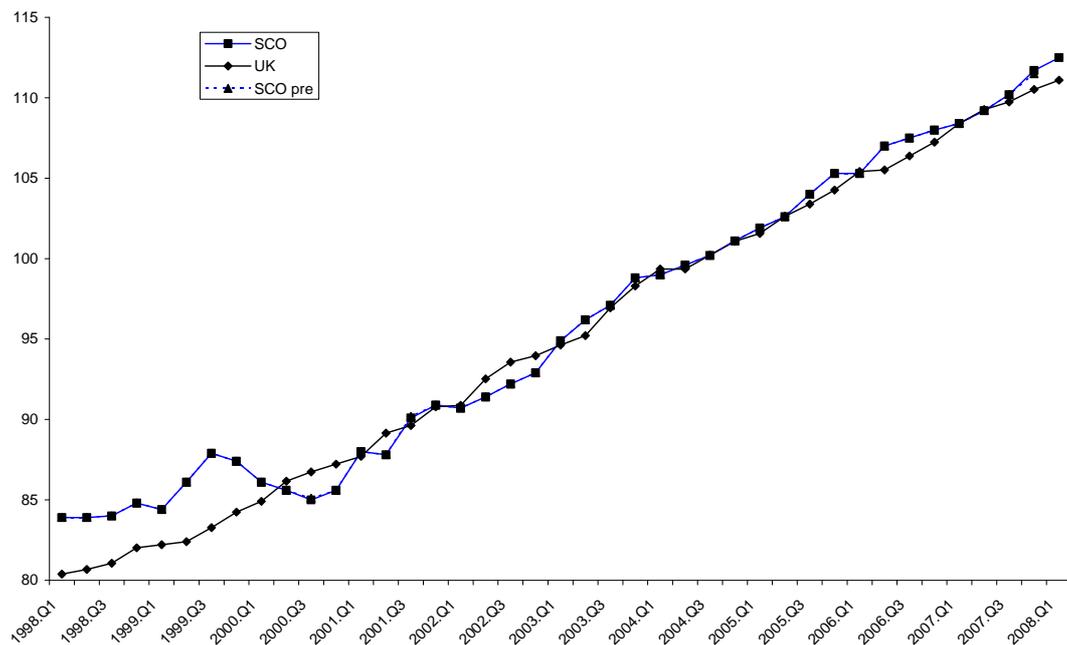


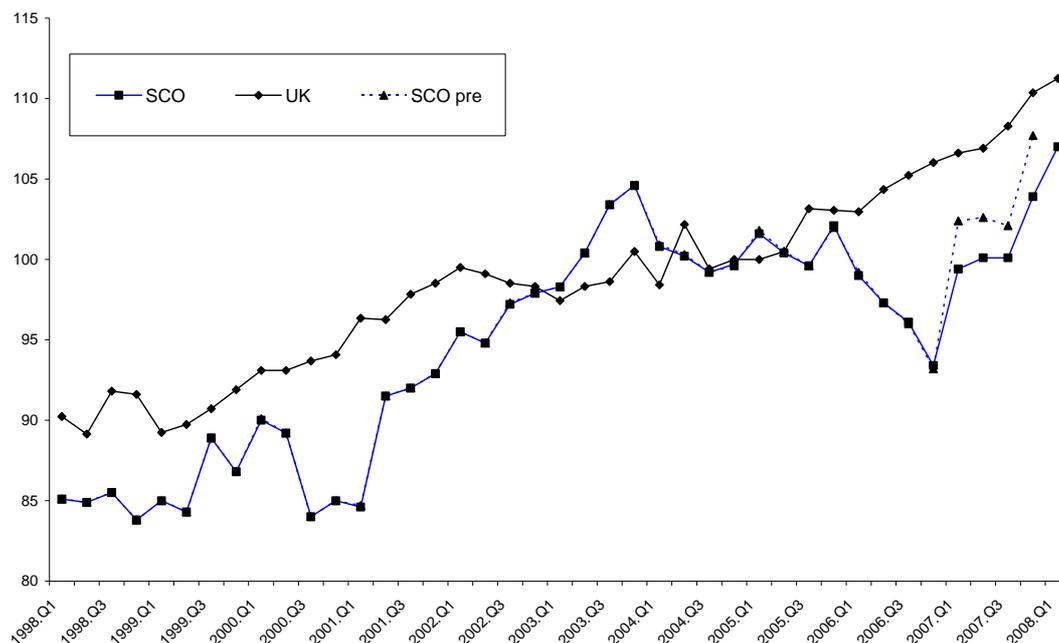
Figure 7: Health



OTHER SERVICES (6%)

The worrying trend decline in Other services experienced in 2006 in Scotland (Figure 8) was more than reversed in 2007 and this fast recovery continued into Q1 of 2008. It is not clear what the source of this earlier decline might be, and why now this sector is significantly outperforming the rest of the UK. In the last 12 months (see Table 1), Scotland outgrew the UK by 3.2% in this sector (by 2.2% alone in the first quarter of 2008!).

Figure 8: Other services



#### AGRICULTURE, FORESTRY AND FISHING (AFF) (2%)

This sector is down almost  $-8\%$  on its 2004 Q2 recent peak. In contrast, over the same period, AFF in the UK has grown by over  $6\%$ .

#### THE PRODUCTION SECTOR (18%)

The small fall in Q1 ( $-0.1\%$ ) was down to a larger fall in its principal component, Manufacturing, being largely offset by a large rise in Energy ( $+5.2\%$ ).

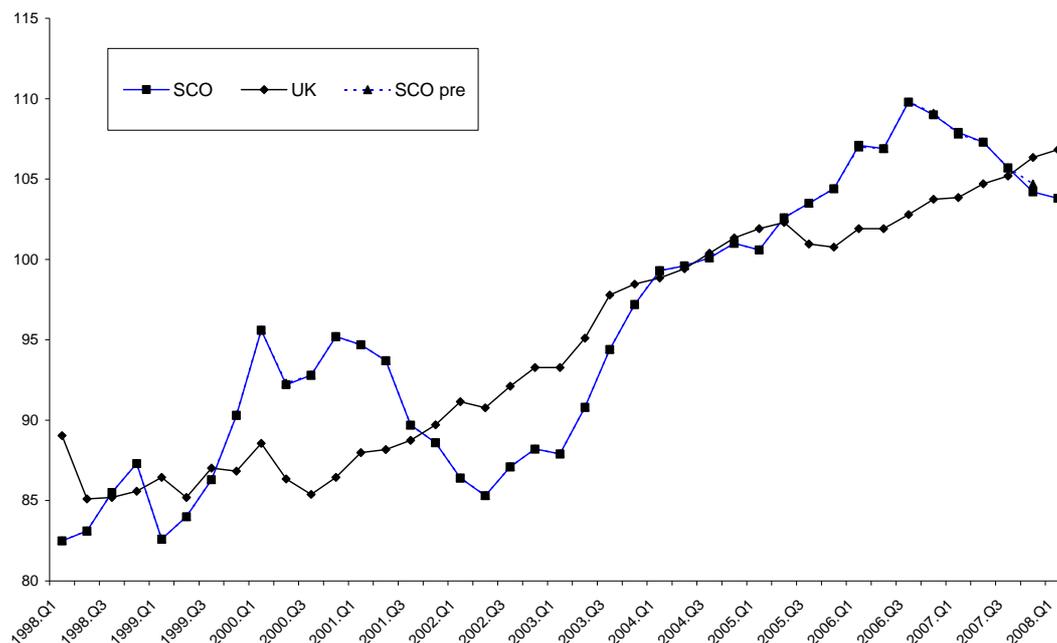
Within Manufacturing, the Q1 fall was down to falls in Metals ( $-5.9\%$ ), Textiles ( $-3.4\%$ ), Mechanical Engineering ( $-3.1\%$ ) and Electrical Engineering ( $-4.2\%$ ). In contrast Chemicals ( $+2.2\%$ ) and Transport Equipment ( $+6.7\%$ ) had good quarters.

Overall, in the past couple of years the outstanding performers have been Drinks, Textiles and Mechanical Engineering, each of which have grown by over  $10\%$ .

#### THE CONSTRUCTION SECTOR (7%)

After outgrowing the UK sector from 2002 to 2006 ( $25\%$  vs  $12\%$ ) Scotland's Construction industry has fallen in each of the last six quarters (Figure 9), while the Construction sector in the UK has risen in each of the last 6 quarters. In the last 12 months, UK growth was  $6.1\%$  higher than in Scotland; in the first quarter of 2008, the differential was  $0.9\%$  in favour of the UK.

Figure 9: Construction



This leaves a rather confusing picture of the housing sector with output declining in Scotland vs the UK but house prices holding up better in Scotland.

## IMPORTANCE AND RELIABILITY OF SCOTTISH GVA STATISTICS

In the last CPPR analysis, of the 2007Q4 GVA publication, we highlighted our concerns over the quality and reliability of the Scottish GVA data, especially given its increasing importance in terms of being used by the Scottish Government as an overall measure of success.

The ONS Economic and Labour Market Review (ELMR), publishes a quarterly article on Regional Economic Indicators. The latest edition, May 2008, continues to show that, based on Regional Accounts (RA) data for GVA at current basic prices, Scotland outgrew the UK economy for each of the last three years for which data is available (2004-2006). Clearly these figures contradict the growth findings taken from the Scottish Government quarterly publication, where in each of these three years the UK has outgrown Scotland (see Table 4).

Table 4: annual growth rates (%) 2004-2006

	2004		2005		2006	
	Sc	UK	Sc	UK	Sc	UK
GVA constant prices, 2004 base	2.6	3.3	1.5	1.9	2.7	2.9
RA GVA current prices	6.1	6.0	4.7	4.1	5.9	5.1

Footnotes:

1. all GVA measures above exclude extraction of mineral oil and natural gas
2. Regional Accounts figures shown here are unsmoothed, as shown in EMLR

**One of the most worrying aspects of these contradictory findings is that UK Government economists and Ministers might view the performance of the Scottish economy rather differently from Scottish Government economists and Ministers. This could in turn have implications for policy prescriptions.**

In previous commentaries of the quarterly Scottish GVA data we have stated that in light of the Scottish Governments new economic targets more resources are needed in order to acquire a better understanding of the GVA data and trends and of the reasons why certain industry sectors perform like they do. Given the earlier discussion on Hotels and Catering and on Financial Services, as well as the above confusion in relation to Scottish vs UK growth, we continue to believe that this is urgently needed.

## **CONCLUSIONS**

The latest GVA publication for Scotland continues to exhibit some worrying and often unexplained trends. In a number of sectors it is difficult to fathom the economic explanation for past and current movements.

**At any point in time it would be desirable to have some of these gaps in our economic knowledge filled. In the short period leading up to the intended 2010 referendum on independence or greater economic autonomy it is even more vital to gain a robust understanding of how our economy works.**

**If an independent or fiscally autonomous Scotland was to depend on financial services and tourism, as sectors of ‘comparative economic advantage’, as prime sources for pushing up Scotland’s growth rate then the current position looks uninspiring. Hotels and restaurants have been flat-lining for a decade now (with very recent rapid growth) and financial services are going through a time of turmoil whose final destination may leave Scottish financial services looking very different to what it does now.**

**One of the advantages of smaller economies can be the ability to better understand its detail and the prime elements that influence it. Currently this is not the case in Scotland but it is a position that the Scottish Government should attempt to remedy in the very near future. Ireland stands as a good example to follow where the Government, via various economic bodies and think-tanks, is able to gear economic policy more closely with the needs of a particular industry.**

We repeat our request that more resources are needed in order to acquire more understanding. If judgements are to be made based on whether we succeed or fail to meet targets then such targets need to be reliably measured. Equally, the debate around the intended referendum of 2010 needs to be based on a proper understanding of how our economy works and the opportunities and threats that independence or full fiscal autonomy might pose.

**Annex 1: GVA by broad sector in Scotland and the UK (based on 2004 = 100)**

Industry	Growth 2007Q1-2008Q1			Growth 1998Q1-2008Q1			Growth 1998Q1-2008Q1		
	(overall) <sup>a</sup>			(overall) <sup>a</sup>			(average p.a.) <sup>b</sup>		
	Sc	UK	Diff <sup>c</sup>	Sc	UK	Diff <sup>c</sup>	Sc	UK	Diff <sup>c</sup>
<b>TOTAL</b>	2.3%	2.2%	-0.0%	22.0%	30.6%	8.6%	2.0%	2.7%	0.7%
<b>Agriculture etc</b>	-2.0%	1.0%	3.0%	1.5%	5.9%	4.4%	0.2%	0.6%	0.4%
<b>Production</b>	0.5%	0.4%	-0.1%	-10.9%	-1.1%	9.8%	-1.1%	-0.1%	1.0%
Mining etc	-8.5%	-4.9%	3.6%	-30.6%	-34.0%	-3.4%	-3.6%	-4.1%	-0.5%
Electricity, gas, water	6.1%	1.4%	-4.6%	-10.8%	14.8%	25.6%	-1.1%	1.4%	2.5%
Manufacturing	0.2%	0.9%	0.7%	-9.5%	2.5%	12.0%	-1.0%	0.2%	1.2%
<b>Construction</b>	-3.8%	2.3%	6.1%	25.8%	19.7%	-6.2%	2.3%	1.8%	-0.5%
<b>Services</b>	3.4%	2.6%	-0.7%	33.1%	42.1%	9.0%	2.9%	3.6%	0.7%
<b>Retail &amp; wholesale</b>	5.0%	3.0%	-2.0%	23.9%	40.7%	16.9%	2.2%	3.5%	1.3%
Retail	6.5%	5.3%	-1.1%	37.0%	56.7%	19.7%	3.2%	4.6%	1.4%
Wholesale & motor vehicles	3.7%	0.7%	-3.0%	13.7%	27.3%	13.6%	1.3%	2.4%	1.2%
Hotels & Rest's	3.0%	0.2%	-2.9%	2.3%	37.5%	35.2%	0.2%	3.2%	3.0%
Transport & Commun's	2.2%	2.5%	0.3%	63.5%	61.3%	-2.2%	5.0%	4.9%	-0.1%
Financial Intermediation	-10.1%	11.9%	22.0%	78.2%	92.8%	14.6%	5.9%	6.8%	0.8%
Real estate & Business	8.0%	3.7%	-4.2%	52.7%	62.7%	10.0%	4.3%	5.0%	0.7%
Public Adm., Ed. & Health	0.3%	1.1%	0.8%	17.4%	20.6%	3.2%	1.6%	1.9%	0.3%
Public Admin & Def	-3.6%	-1.1%	2.6%	9.1%	12.1%	3.0%	0.9%	1.2%	0.3%
Education	-0.5%	1.2%	1.7%	4.6%	9.7%	5.1%	0.5%	0.9%	0.5%
Health & Social W	3.6%	2.4%	-1.2%	34.1%	38.2%	4.1%	3.0%	3.3%	0.3%
Other services	7.6%	4.4%	-3.2%	25.7%	23.4%	-2.3%	2.3%	2.1%	-0.2%
<b>FISIM</b>	-9.1%	17.1%	26.2%	81.4%	159.3%	77.9%	6.1%	10.0%	3.9%

<sup>a</sup> Calculated as arithmetic growth i.e.  $100 \times [(Y_{end} - Y_{start}) / Y_{start}]$

<sup>b</sup> Calculated as geometric growth i.e.  $(100/9) \times \ln(Y_{end} / Y_{start})$

<sup>c</sup> UK *minus* Scotland difference

Source: ONS (2008) and Scottish Government (2008)