Outlook and appraisal

Overview

The good news for the Scottish economy is that on the evidence from the two most recent quarters manufacturing appears finally to have come out of recession. But service sector growth has weakened, leading to overall Scottish growth lagging behind the UK from the third quarter of last year when UK growth surged ahead.

The role of the corporate sector in Scotland's economic performance was highlighted in a recent report from the Royal Bank of Scotland, which estimate the value added of the top 100 'Scottish' companies. The Institute welcomes this research, notes that there is much of value in the Report and commends the desire to promote a debate on the role of large companies in the Scottish economy. In contributing to this debate we seek to provide an estimate of the direct contribution of these companies to Scottish value added. The estimate suggests that the RBS Report overstates the direct contribution of the top 100 companies to the Scottish economy. In contrast to much of the external commentary on the study, the Institute takes the view that the Report cannot be viewed as offering a challenge

Vol.29 No.2, pp.3-11.

to the policy focus on start-ups and entrepreneurial activity rather it is more compatible with policy adopting a life-cycle approach to Scottish companies. Our analysis also indicates that the Scottish value added produced by the 100 companies is less concentrated in a handful of companies and the sectoral focus broader than suggested by the RBS Report. We consider how large companies can contribute favourably to Scotland's economic performance, but note that unfavourable comparisons with the corporate structure of similar sized but independent countries, such as Finland, Denmark and Switzerland, may not be wholly appropriate. The outlook for the Scottish economy is favourable as the growth of the UK and global economies strengthens. Scottish GDP growth is revised up to 2.2% this year but down from 2.7% to 2% next year reflecting an expected slowing in the growth of domestic demand due to higher interest rates, a moderation of house price inflation and a reduction in the growth in public expenditure.

GDP and output

The latest data from the Scottish Executive reveal that Scottish gross domestic product (GDP) at basic prices, or gross value added (GVA), grew by 0.2% in the first quarter of the year. The UK economy, in contrast, grew by 0.6% and 0.7% ex oil & gas. Over the year to the first quarter Scottish GDP grew by 1.6% and 1.7% ex oil & gas, while UK GDP grew by 2.3% and 2.6%, respectively. Over the last 5 quarters GDP growth has fluctuated in Scotland with no clear pattern emerging. After increasing by 0.3% in the first quarter of 2003, growth accelerated to 0.6% in the second quarter. But this above trend growth was followed by an increase of only 0.3% in the third quarter, an almost static 0.1% growth in the final quarter and the slightly better performance of 0.2% in the most recent quarter. What is certain, however, is the weaker performance of Scottish economic growth compared to the UK since the third quarter of last year when the UK surged ahead. This is clearly indicated in Figure 1.

The good news for the Scottish economy is that on the evidence from the two most recent quarters manufacturing appears finally to have come out of recession. Manufacturing grew slightly by 0.2% in the final quarter of last year and this was followed by much stronger growth of 0.8% during January to March of this year. Figure 2 reveals that UK manufacturing climbed out of recession much earlier than Scotland, in the first quarter of last year. However, while UK manufacturing has enjoyed stronger growth than Scottish manufacturing for several quarters, production contracted by 0.4% in the first quarter of the year while manufacturing north of the border turned in its strongest performance since the third quarter 1999.

Within manufacturing, of the 11 sectors for which data are published 8 sectors exhibited positive growth during the first quarter. Of these, the most important performers in terms of growth and contribution to overall manufacturing output were the food sector, which grew by 2.9%, textiles with growth of 2.4%, transport equipment, 2.2%, other manufacturing, 0.8%, and electronics 0.7%. Electronics has now exhibited positive growth for the last two quarters leading one to hope that the long recession in the sector has finally ended.

This good news for Scottish manufacturing is reinforced by the export data for the first quarter, which reveal that exports grew by 2% in the quarter after contracting by 32% since 2000.

Figure 3 indicates that the focus of concern may now need to shift from manufacturing to services. After outperforming UK services for much of the last three years, the growth of services in Scotland began markedly to fall behind the UK from the second quarter of last year. Since then Scottish services have hardly grown at all, while UK services have grown by 3%. A closer examination of service sector performance in Scotland indicates strong growth in

Scottish services over the 4 quarters to the first quarter of this year. Since the third quarter last year, the retail & wholesale sector appears to be growing at much the same rate as in the UK, while financial services and transport services continue to outperform their UK counterparts. In contrast, hotels & catering is performing less well than the industry in the UK and most recently real estate & business services and other services have begun to contract. The weakening of the performance of real estate and business services is major cause for concern, since the sector accounts for 26% of value added in the overall service sector. It may reflect some weakening in the housing market in Scotland but we are at a loss to explain why business services should have begun to perform so poorly. The problem is further compounded by the present lack of UK comparator data for both real estate & business services and public administration for technical reasons linked to the introduction of the chain linking methodology in the UK.

Wealth creation and Scotland's corporate sector

In May the Royal Bank of Scotland (RBS) published Wealth Creation in Scotland, a report on Scotland's top 100 companies and their contribution to the Scottish economy. The Report provides welcome and valuable information on the ownership, scale, industrial composition, efficiency and performance of the leading Scottish companies. Moreover, it is of particular value in helping stimulate debate on the role of the corporate sector in the Scottish economy. We hope that the analysis below contributes further to that discussion.

Specifically, the RBS Report estimates the value added[1] in 2002/03 by each company using the methodology and the same consultancy company – Company Reporting Limited – to provide the data as the UK Department of Trade and Industry's 2004 Value Added Scorecard.

The Report's principal finding is that the top 100 firms created £40.9 billion of value added in 2002/03. While the Report is careful to stress that the £40.9 billion is "equivalent" to 56% of Scottish GDP and that "not all of the wealth created by the top 100 companies is directly distributed into the Scottish economy" (p.8), there was sufficient ambiguity in the wording of the Report for much of the media to report in effect that the top 100 companies contributed 56% of Scottish valued added.[2] The use of the term "distributed" led some newspaper reports to conclude that not all this wealth would be to Scotland's benefit because of the payment of dividends to shareholders across the globe.[3] The implication of such reports was that the remaining value added after the distribution of global dividends would be to the benefit of Scottish residents. Nothing could be further from the truth.

The Scottish corporate sector and its top 100 firms add value to Scotland's GDP through the value of the goods and services produced in Scotland less indirect taxes plus product subsidies and minus the import of goods and services used as inputs in the production process. This contribution to value added is direct: the value added in Scotland by the companies themselves, indirect: the value added by Scottish firms supplying inputs to the Scottish companies and induced: the value added by the re-spending in Scotland of the additional household incomes. However, to be set against the potential indirect and induced effects are the negative displacement effects on other Scottish companies through competition in Scottish product and labour markets and even other country markets.[4] Finally, there may be a set of non-market externalities from the companies in question that may benefit other Scottish firms through, for example, knowledge spillovers with the size of such effects likely to be magnified if the headquarters of the company is located here. Harmful externalities on other Scottish firms due to contributions to pollution and congestion may also be present.

Estimates of the indirect and induced effects require the application and use of input-output tables but these tables report flows at the industry not the corporate level, while the displacement and externality effects are even harder to pin down. The RBS Report purports to identify and measure the direct value added contribution of the top 100 firms and does not attempt to measure any of the other effects, although it draws attention to the potentially favourable multiplier effects through the local supply chain (p.8). The Report also points out that "several of the leading Scottish companies have a significant presence in the rest of the UK and overseas" (p.8). But what the Report identifies and measures is the value added created by the top 100 companies not the value added created in Scotland. It is the value added created in Scotland that directly contributes to Scottish GDP. This is an altogether more difficult number to estimate.

With the help of colleagues Peter McInnes and Christine Reid from the Graduate School of Business at the University of Strathclyde, we have attempted to measure the direct contribution of the RBS top 100 companies to Scottish value added and GDP. We derive estimates of Scottish value added by applying the share of Scottish to total employment in each company to the RBS Report's estimates of company value added.[5] Unfortunately, we were only able to establish Scottish employment in less than half of the companies. One would have thought that their Scottish employment would not be a commercially sensitive piece of information but many of these large Scottish companies refused to volunteer the information. For those companies that would not, or could not, co-operate we used other sources of information if they were available.[6] In the absence of additional information, we adopted the rule that for the subsidiaries of UK and foreign parents the value added total for the subsidiary would reflect their activities in Scotland.[7]

The estimates of the direct contribution to Scottish value added of each of the RBS top 100 companies are presented in Table 1 ranked by size of contribution. The estimated value added in the 100 companies sums to £13 billion, which represents a direct contribution to Scottish GDP at basic prices of just under 18%, significantly lower than the £40.9 billion or the 56% equivalence suggested in the RBS Report. Moreover, we consider that we have adopted a conservative approach to the adjustment of company to Scottish value added and our view is that the estimate of an 18% contribution remains on the high side. It should further be noted that we have applied the adjustments to the set of 100 companies chosen by the RBS methodology. Ideally, adjustments from company to Scottish value added should be made for all companies and then the top 100 by contribution selected, but this would require resources beyond our means to implement. The set of 100 from this procedure is likely to be different from the RBS set particularly at the lower end.

Table 1 indicates that the top 10 is not a great deal different from the RBS top 10. HBOS is estimated to make the largest contribution to Scottish value added, with RBS a very close second. The same companies remain in the 3rd, 4th and 5th positions, FirstGroup, British Energy, and Stagecoach leave, while Christian Salveson, Johnston Press and Britoil enter the top 10. But given the uncertainties surrounding measurement of Scottish value added for some companies[8] not a great deal of weight should be placed on these rankings. What is of greater significance are the implications of this revised analysis for our understanding of the role of the corporate sector in the Scottish economy and the implications for policy.

The RBS Report inter alia drew conclusions about the scale of the corporate sector in relation to the size of the Scottish economy, the concentration of value added in a handful of firms and in a handful of sectors. These conclusions need to be modified in the light of our analysis of the contribution of the top 100 to Scottish value added.

First, a direct contribution of 18%, and probably lower, to Scottish GDP suggests that the major Scottish companies contribute much less directly to the Scottish economy than the RBS analysis implies. This is not to deny the importance of the major corporates. Indeed, the achievements of RBS, HBOS, Scottish Power, the Wood Group and several other Scottish companies in competing effectively in global markets deserve to be recognised and celebrated much more in Scotland than presently is the case. The RBS Report is right to stress this importance and to highlight the dearth of medium-sized firms in Scotland. However, much of the commentary on the Report saw this emphasis as a challenge to the policy focus on start-ups and new entrepreneurial activity[9] when in fact the Report simply acknowledged that such a focus " ...is not the whole picture. We also need strong, efficient and competitive companies at all levels" (p.4). How true. New firms bring new ideas, technology and skills into the economy. They are unencumbered by a vested interest in existing technologies, which bedevils larger firms and as the Report acknowledges low rates of investment in R&D have been a particular feature of the Scottish corporate sector. We contend that policy should adopt a life-cycle approach to Scottish companies identifying the market and institutional failures that affect such firms at different stages and at different maturities and then formulate policy accordingly.

Secondly, the RBS Report highlights the extent to which value added is heavily concentrated in a handful of firms, with the top 10 companies producing nearly 70% of the £40.9 billion value added produced by the top 100 firms. Our analysis suggests that the domestic concentration is much less, with the top 10 firms producing 48% of the £13 billion Scottish value added. The dominance of the top 10 in Scotland is now closer to the 40% dominance of the UK top 10 in the total value added generated by the UK top 100 cited in the RBS Report (p.13). The domestic value added content of the UK top 10 is likely to be somewhat greater than the Scottish top 10 because if companies in smaller regions and countries are to rise to global status they must go international earlier and devote a greater proportion of their activity to such operations.[10] The presence of large global companies based in Scotland brings much additional benefit to the Scottish economy over and above their contribution to value added. By producing and trading in international markets they operate at the cutting edge of competition, which drives efficiency leads to the adoption of the most up to date technologies and encourages product innovation. The potential for the transfer back to their Scottish operations of such advantages is considerable with the further possibility of spillovers to other Scottish firms. However, to the extent that they come to dominate their domestic markets then the potential benefits from such global presence may be eroded by the lack of domestic competition, unless checked by the competition authorities.

Finally, the Report highlights the extent to which the value added produced by the largest 100 Scottish firms is concentrated in just a few sectors. The RBS data indicate that nearly 80% of total value produced by the top 100 companies is accounted for by just four sectors, banking, oil & gas, electricity and transport. The Report presents further data to show that the degree of industrial concentration is far greater than the UK and Europe. However, it should be noted that the comparison is not made on a like for like basis with the sectoral concentration of Scotland's top 100 firms compared to concentration in the UK's top 800 and Europe's top 600! Our analysis of the Scottish value added produced by the top 100 companies reveals that the degree of industrial concentration is much less with only 61% accounted for by banking, oil & gas, electricity and transport. The RBS Report noted the lack of sectoral diversity amongst the top 15 firms, with only 5 different sectors represented. Our analysis suggests that when contribution to Scottish value added is used sectoral diversity rises, with 9 sectors represented in the top 15.

The Report also notes that comparable countries to Scotland in terms of size such as Belgium, Denmark, Finland and Switzerland have much greater sectoral diversity amongst their largest firms. Finland and Switzerland for example have 11 and 12 different sectors, respectively, represented in their top 15 firms ranked by value added. It can be argued, however, that in contrasting such countries with Scotland one is not comparing like with like. While they may be of similar size they are different in that Scotland's position in the UK monetary union has allowed her to specialise in those activities in which she is absolutely better relative to other parts of the UK. The corporate definition used to collect the data may also play a role in the differences between Scotland and countries such as Finland, Denmark and Switzerland. Companies that have a strong presence in Scotland but do not have a registered office or head office, or separately identifiable Scottish subsidiary are not included in the corporate dataset used. Hence, large employers such as Tesco, Sainsbury, other high street multiples and companies such as BAE Systems are ignored. It is arguable that as an economic region of the UK Scotland will have more of her activity delivered through such corporate arrangements than the sovereign countries noted above. If true, this means that more of Scotland's corporate activity is less visible than in those countries and not that corporate activity itself is necessarily lower in Scotland.

Through greater specialisation and then free trade both Scotland and the rest of the UK benefit from resources being allowed to flow to where they are best employed. Total output for given inputs is greater as a result. This may in part be why the RBS Report finds that the value added created by Scotland's top 15 firms is greater than that created by Belgium's top 17, Finland's top 19 and Denmark's top 15 (p.17). However, what is of more significance is the RBS Report's finding that Scotland top 100 companies are less specialised in fast growing global sectors, such as IT hardware, Pharmaceuticals and Biotech, and Software and IT services, than say Finland or Switzerland. This is perhaps a further indication of the challenge confronting the Scottish Executive in making Scotland attractive to leading mobile firms and skilled labour as well as improving her general competitiveness.

Outlook

The growth of the global economy continues to improve with world trade forecast to expand appreciably this year. Growth also now appears to be picking up in the Euro area although this is mainly fuelled by exports with domestic demand still weak but improving. The US economy exhibited a slowing of GDP growth in the second quarter, which makes the FOMC decision to raise interest rates for the first time since 2000 to 1.25% appear somewhat strange. The Bank of England in its latest inflation report considers that the slow down in US consumers' expenditure, which underpinned the slowdown in second quarter growth, will prove to be temporary. Other analysts are less sanguine about the future health of the US economy and do not take it for granted that growth is on an upward curve. Added to this, is the effect of an oil price that recently moved above $45 per barrel and due to Middle East tensions may remain above $40 for some time. The industrialised economies are less sensitive to high oil prices than they were in the 1970s but the twin evils of higher inflation and a slower growth of real incomes are more probable the longer such high oil prices persist.

The UK economy is growing strongly and above trend with demand growth robust enough to justify the recent increases of 0.25 percentage points in both June and August. Interest rates should be expected to rise further from their present 4.75% passing 5% before the end of the year. GDP growth is likely to remain above trend for the remainder of the year producing an outturn of 3.1% this year. But growth should moderate slightly next year to 2.6% around trend as the growth of domestic demand slows due to higher interest rates, a moderation of house price inflation and a slowing of the growth in public expenditure.

In Scotland, business surveys indicate that manufacturing continues to recover but with weakness in the service sector overall growth is slower than in the UK. Against this background we are forecasting that the path of GDP growth will follow that in the UK but at a lower rate. We have raised slightly our forecast for Scottish GDP growth in 2004 from 2.1% to 2.2%. However, we have cut back our forecast for 2005 from 2.7% to 2% to allow for the factors noted above that will begin to depress UK growth. In 2006, we expect growth to adjust down further to 1.8%, which is the same as our earlier forecast. The service sector continues in 2004 to be the main driver of growth, growing by 2.3%, falling to 2% in both 2005 and 2006, although we remain concerned about the recent weakening of growth in the sector. Manufacturing growth is forecast to grow by 1.2% this year rising to 1.7% in 2005 and 1.3% in 2006. Construction continues to exhibit strong growth performance of 4.1% this year but moderating to 3.7% in 2005 and 2.1% in 2006.

Finally, we are forecasting that the jobs market in Scotland will continue to be buoyant with net job creation of 22, 000 this year, 29,000 in 2005 and 28,000 in 2006. The unemployment rate should continue to fall slowly to 5.5% in 2004, 5.3% in 2005 and 5.2% in 2006 on the government's preferred ILO measure. That said the uncertainties confronting the global economy are probably greater than when we last reported and will if sustained have a dampening effect on growth, which must inevitably affect the performance of the Scottish economy.

Endnotes

1. Value added is defined as sales minus the cost of bought in materials, components and services. The report measures value added as the sum of operating profit, employee costs, depreciation and amortisation.

2. "The 100 private sector firms created £40 billion of wealth in 2002, which is around 56% of the national cake" (Growing Bigger Businesses, Scotsman Leader, 19th May 2004.) "The total added value of £40.9bn represents some 56% of Scotland's gross domestic product" (Scottish wealth creation held in handful of sectors, Simon Bain, Herald 19th May 2004.)

3. "According to the bank's research, these firms generated the equivalent of a staggering 56% of the country's GDP in 2002. Not all of this benefited Scotland, of course. Dividends were paid globally, for example. But it is still an astonishingly large proportion." (Growth of mid-size Scottish firms holds key to nation's future wealth, James Dow, Scotsman, 19th May 2004.)

4. For example, competition between RBS and HBOS is supplying financial services England.

5. The ONS typically uses employment shares to apportion value added in one reporting unit to producing units in different locations. The procedure will be deficient to the extent that labour productivity and/or the combination of land, labour and capital varies between locations.

6. For example, for oil and gas companies the Scottish share of UK employment in the industry – sourced from BP's website – was used in the absence of company specific information.

7. We also had to make the assumption that total company value added was equal to Scottish value added for some Scottish listed companies if we had no basis for adjusting the company value added figure down. In Table 1 the figures for Scottish employment and value added that are direct applications of a rule or guesstimate are presented in italics.

8. The attribution of all of Christian Salveson's value added to Scotland is almost certainly incorrect but we had no other information on which to base an apportionment.

9. Simon Bain op cit.

10. The ratio of total value added to Scottish value added averages 3.4 for the top 10 companies ranked by Scottish value added compared to an average of 2.8 for the remaining 90 firms, suggesting that firms contributing absolutely more to Scottish value added also have a greater tendency to produce value added outside Scotland.

Brian Ashcroft
11 August 2004

Figure 1 Scottish and UK GDP, Quarterly Growth at constant basic prices 1998q2 to 2004q1

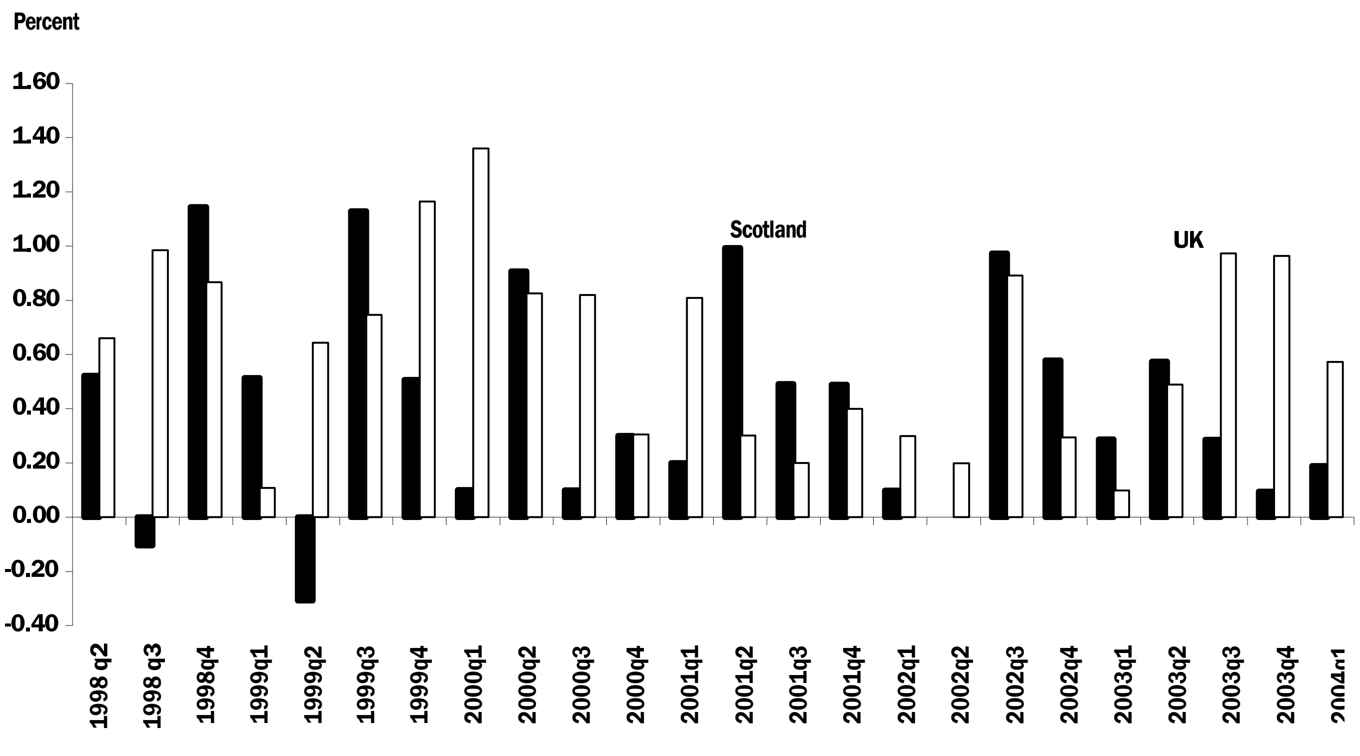

Figure 2 Scottish and UK Manufacturing Sector GVA Growth at constant basic prices 1998q2 to 2004q1

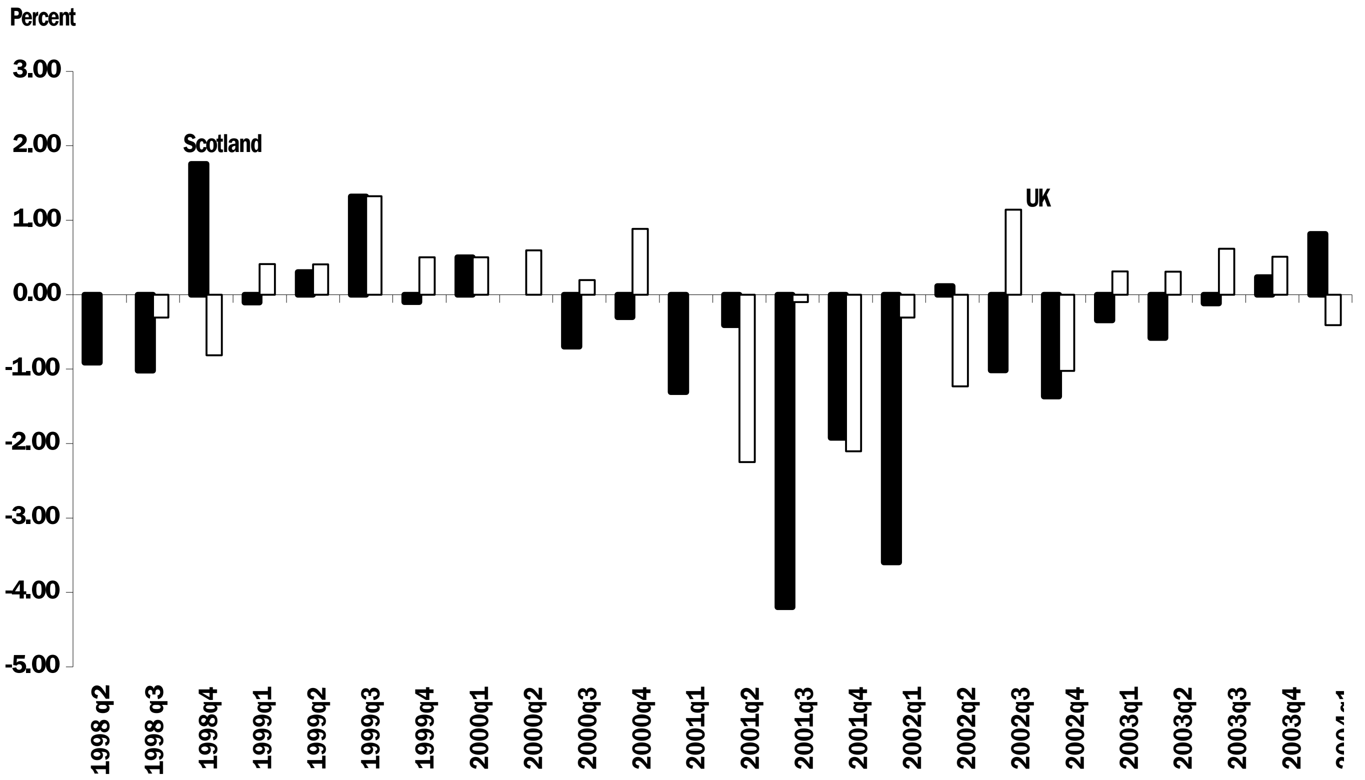

Figure 3 Scottish and UK Service Sector GVA Growth at constant basic prices 1998q2 to 2004q1

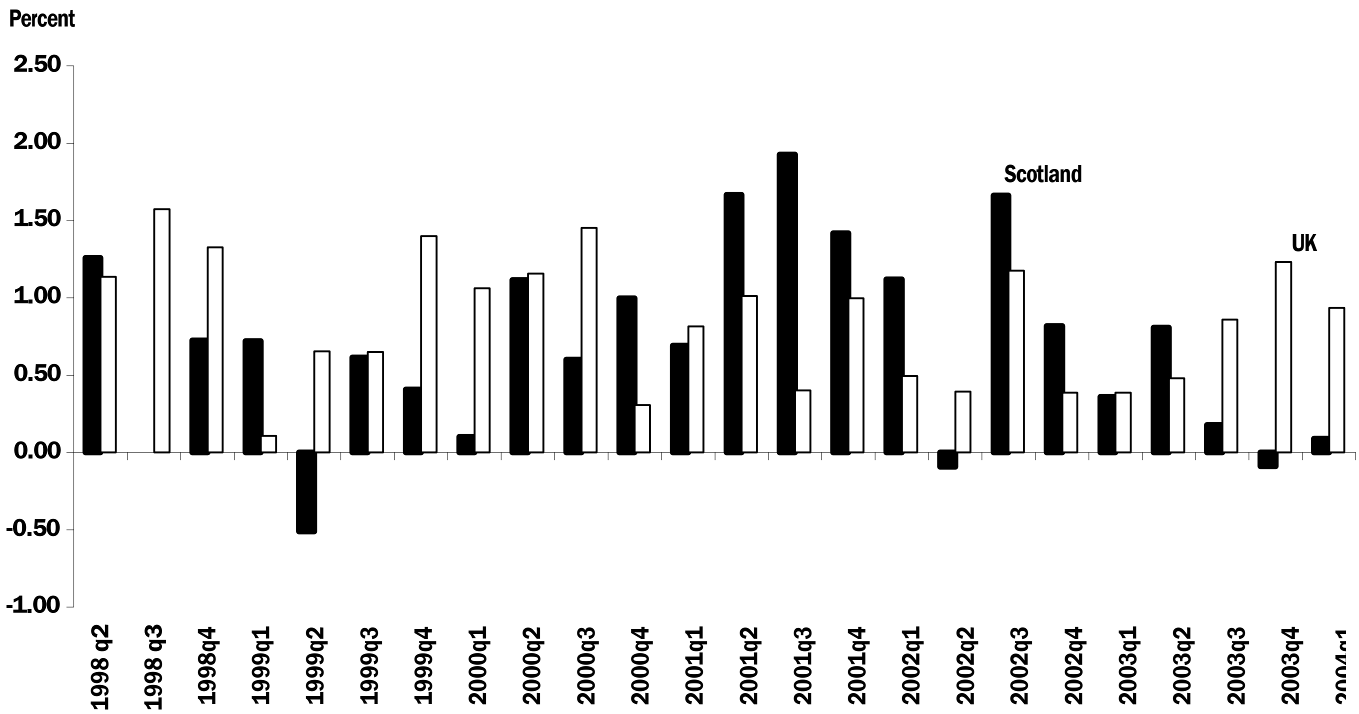

Table 1 Top 100 Companies by Value Added in Scotland

Rank by Scots VA	Company	Ownership	VA per RBS £m	VA / emp £000	No of Empl	Scot.Emp.	Scottish VA £m
1	HBOS	Scottish - listed	5269	82.4	63,944	17,795	1,466
2	Royal Bank of Scotland	Scottish - listed	10861	95.7	113,490	15,000	1,436
3	Scottish Power	Scottish - listed	2195	137.8	15,929	5,298	730
4	TotalFinaElf (UK)	Foreign parent	1902	204.1	9,319	2,889	590
5	BP Exploration	UK parent	1657				514
6	Christian Salveson	Scottish - listed	361	24.6	14,675		361
7	Scottish & Southern Energy	Scottish - listed	1105	120.2	9,193	3,000	361
8	Scottish & Newcastle	Scottish - listed	1485	29.9	49,666	10,000	299
9	Johnston Press	Scottish - listed	280	38	7,368		280
10	Britoil	UK parent	762				236
11	Clydesdale Bank	Foreign parent	234	72.6	3,223		234
12	Shanks	Scottish - listed	207	44.9	4,610		207
13	Talisman Energy	Foreign parent	664			179	206
14	Scottish Equitable	Foreign parent	196	49	4,000		196
15	Scottish Widows	UK parent	213	48.9	4,356	4,000	196
16	Arnold Clark Automobiles	Private	187	34.8	5,374		187
17	Hewden Stewart	Foreign parent	169	43.2	3,912		169
18	Concoco Phillips	Foreign parent	530				164
19	British Energy	Scottish - listed	1157	146.4	7,903	1,100	161
20	Lloyds TSB Scotland	UK parent	142	74.8	1,898		142
21	Technip-Coflexip	Foreign parent	142	84.6	1,678		142
22	Wood Group	Scottish - listed	430	44.6	9,641	3,047	136
23	AWG Construction Services	UK parent	133	29.8	4,463		133
24	Texaco North Sea	Foreign parent	416	79.5	5,233	1,622	129
25	SMG plc	Scottish - listed	123	76.2	1,614		123
26	Abbey National Financial	UK parent	114	32.5	3,508		114
27	Stakis	UK parent	113	17.5	6,457		113
28	Motherwell Bridge	Private	110	25.1	4,382		110
29	Kwik Fit	Foreign parent	106	24	4,417		106
30	First Group	Scottish - listed	1316	23	57,217	4,500	104
31	City Centre Restaurants	Scottish - listed	100	15.2	6,579		100
32	Kerr-McGee	Foreign parent	321			150	100
33	Thus	Foreign parent	99	47.7	2,075		99
34	Diageo Scotland	UK parent	98	37.9	2,586		98
35	Mobil North Sea	Foreign parent	314				97
36	National Australia Group Europe	Foreign parent	96	30.9	3,107		96
37	Abbey National Life	UK parent	94				94
38	Alldays	UK parent	91	9.4	9,681		91
39	Sun Microsystems Scotland	Foreign parent	65	81.5	798	986	80
40	NCR Financial Solutions	Foreign parent	80	44.5	1,798		80
41	Inverness Medical	Foreign parent	79	75.6	1,045		79
42	Weatherford Eurasia	Foreign parent	88	64.2	1,371	1,200	77
43	Chevron	Foreign parent	245	96.5	2,539	787	76
44	Grampian Country Food	Private	360	18.9	19,048	4,000	76
45	Abbey National SMA	UK parent	74				74
46	VFS Financial Services	Foreign parent	73				73
47	William Grant	Private	119	125.8	946	580	73
48	Johnson & Johnson Medical	Foreign parent	71	64.3	1,104		71
49	Turner & Co (Glasgow)	Private	70	29.4	2,381		70
50	Jabil Circuit	Foreign parent	69	32.4	2,130		69

51	Edrington	Private	102	131.1	778	525	69
52	Abbot Group	Scottish - listed	219	44.8	4,888	1,515	68
53	Hewlett-Packard	Foreign parent	66	36.8	1,793		66
54	GE Caledonian	Foreign parent	63	66.8	943		63
55	Martin Retail	UK parent	63	11.2	5,625		63
56	TP	UK parent	60				60
57	Macdonald Hotels	Private	59	28.3	2,085		59
58	DC Thomson	Private	71	38.7	1,835	1,500	58
59	Aberdeen Asset Management	Scottish - listed	58	65.5	885		58
60	Stagecoach	Scottish - listed	1119	28.8	38,854	2,000	58
61	BJ Services	Foreign parent	57	54.2	1,052		57
62	Robert Wiseman Dairies	Scottish - listed	102	35.8	2,849	1,569	56
63	Blane Leisure	UK parent	56	25	2,240		56
64	Chivas Brothers	Foreign parent	63	68.4	921	800	55
65	Premier Oil	Scottish - listed	175	366.5	477	148	54
66	Ethicon	Foreign parent	54	33.6	1,607		54
67	Harper Collins Publishers	Foreign parent	52	49.1	1,059		52
68	Mackays Stores	Private	52	20.1	2,587		52
69	James finlay	UK parent	51			20	51
70	Keyline Builders Merchants	UK parent	51	43.1	1,183		51
71	MITIE	Scottish - listed	286	12.4	23,065	4,000	50
72	Glasgow Airport	UK parent	49	102.3	479	482	49
73	Weir Group	Scottish - listed	293	37.1	7,898	1,300	48
74	ScotRail Railways	UK parent	72	22.8	3,158	2,000	46
75	Salamis	Foreign parent	53	45.1	1,175	1,000	45
76	Lothian Buses	Private	50	24.8	2,016	1,800	45
77	Forth Ports	Scottish - listed	97	78.9	1,229	522	41
78	Whyte & Mackay	Private	49	63.5	772	620	39
79	ENI (TNS)	Foreign parent	124			2,471	38
80	Inveresk	Scottish - listed	99	40	2,475	950	38
81	CNR International	Foreign parent	118			1,600	37
82	UPM-Kymmene	Foreign parent	95	99.4	956	360	36
83	Paladin Resources	Scottish - listed	108			17	33
84	Menzies (John)	Scottish - listed	206	20.6	10,000	1,500	31
85	Petrofac Facilities Management	UK parent	91	47.6	1,912	593	28
86	Miller	Private	91	67.1	1,356	400	27
87	Aviagen	Private	73	48.7	1,499	500	24
88	Babtie	Private	109	31.5	3,460	693	22
89	ASCO	Private	68	52.1	1,305		21
90	City Refrigeration	Private	84	10.5	8,000	2,000	21
91	Tullow Oil UK	UK parent	66			1	20
92	Aggreko	Scottish - listed	184	87.1	2,113	230	20
93	Devro International	Scottish - listed	67	32.4	2,068	500	16
94	Isis Asset Management	Scottish - listed	58	118.5	489	135	16
95	Cairn Energy	Scottish - listed	93	199.6	466	80	16
96	Robert Bosch	Foreign parent	81	51.2	1,582	306	16
97	ABB Vetco Gray	Foreign parent	49	54.8	894	277	15
98	British Polythene Industries	Scottish - listed	110	32.3	3,406	400	13
99	House of Fraser	Scottish - listed	181	25.9	6,988	452	12
100	Low & Bonar	Scottish - listed	68	32.5	2,092	180	6
	Totals		40,950				13,045

Notes:

1. Estimates provided for Scottish value added using Scottish share of employment applied to total company value added given in Wealth Creation in Scotland, RBS, May 2004.
2. For oil & gas companies the Scottish share of UK employment was used in absence of other information - sourced from BP's website
3. For subsidiaries of UK and foreign parent the value added in the RBS report was used for Scottish VA if no further info was available