

Financial services and the Scottish economy

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Introduction

The financial industry is a pervading element in most of our lives - we write cheques, borrow money, purchase pensions, insure our cars, etc. In addition, the role it plays in channelling investment funds from savers to borrowers is crucial to the efficient functioning of the economy.

Furthermore, while financial companies may be viewed by some as "old economy" institutions, they have always been one of the heaviest users of new information technologies. The computer is probably the financial institution's machine *par excellence*, and the recent information revolution has dramatically altered the manner in which financial institutions undertake their operations, with customers increasingly using the telephone and the Internet for financial transactions.

Financial services make a significant, and increasing, contribution to economic activity, including employment, and this facet that has become increasingly important as other sectors have shed jobs. Table 1 below shows an index of the change in output in Scotland since 1996. In the present context, it is of some interest to note that Financial Intermediation has grown faster than the other sectors shown.

Table 1: Output index, 1996-99

	1995	1996	1997	1998	1999 Q1	1999 Q2
All Industries	100	102.4	105.4	108	109.4	110.4
Manufacturing	100	102.8	108.4	111.3	111.7	112.2
All Services	100	102.9	105.7	108.7	111	111.6
Financial intermediation	100	103.9	107.3	111.6	112.8	115.7

Financial services are particularly significant in Scotland. Ten of the top 20 companies located in Scotland are in the financial services sector, accounting for 62%

of the turnover, 70% of the profit and 33% of the employment of the top 20¹. Furthermore, it is estimated that Edinburgh/Glasgow ranks 6th of the top 10 fund management centres in Europe by institutional equity holdings, while in the banking sector alone, Scotland again ranks 6th in Europe² by market capitalisation when the nationality of the top 30 European banks is considered³.

In view of the scale and significance of the financial service activities located in Scotland it is surprising that there have been few attempts to gauge more precisely its contribution to the Scottish economy. Indeed, Professor Max Gaskin undertook the last official study for the old Scottish Economic Planning Department back in 1981. Because of this, Scottish Financial Enterprise and Scottish Enterprise jointly commissioned the Fraser of Allander Institute (FAI) to provide a more up-to-date study of the significance of financial services to the Scottish economy. The major aim of the study was to measure the scale of the sector in Scotland and its wider effect on the Scottish economy, with a specific focus on the output, income and employment created and supported by financial services. This article contains a summary of the study's main findings, The final section considers possible policy responses, and asks particularly whether, in the light of the findings, financial services could usefully be integrated into the current main policy stance, the development of clusters.

Data collection

In order to assess its total contribution⁴ to the Scottish economy, we require data on the total expenditures of the financial services sector, including its detailed labour and commodity composition. Because there are questions over the appropriate definition of which activities comprise the sector, it was decided that information about the sector should be obtained directly from the financial services companies themselves. These procedures also allowed us to obtain an up-to-date set of expenditure figures- official data of the sort required are limited and refer to the position as of 1996. Surveys of the membership of SFE in Scotland were therefore undertaken. The data from these surveys were then adjusted and augmented⁵ to produce estimates of the levels of output, income and employment generated in the industry in Scotland.

Direct and total economic impacts

The central aim of the study was to assess the *total* economic benefits that financial services provide to the Scottish economy. It is important to note that this total effect is greater than that measured by the initial activities of any individual company within the sector, or by the sector as a whole, due to what are termed multiplier impacts.

For example, in order to produce any type of financial service, such as banking or insurance, the company involved will need to make expenditures on both staff and goods and services. These expenditures will then be used to create output in the banking or insurance sector. The output created is termed that company's initial, or direct, output.

However, this initial impact does not measure the total effect of that financial services company on the Scottish economy. This is because some proportion of these wage and commodity expenditures will be re-spent within Scotland, and will therefore create an *additional* demand for Scottish goods and services⁶. The initial expenditures made by the company will thus create multiple demands for Scottish output, hence the term multiplier effects. The main aim of the study was to estimate these total, or multiplier, effects of financial services on the Scottish economy.

This was achieved by running the estimated expenditures of the sector through the FAI's Scottish Input-Output Model.⁷ In addition, the model also generated estimates of how the total impact of financial services is distributed across other industries in Scotland. This allows us to estimate, for example, not only how many jobs are related to the financial services sector in Scotland, but also to identify the industries in which these jobs are located.

Other impacts

The main aim was to estimate the both the initial and total economic impact of financial services on the Scottish economy. However, while this is clearly of considerable importance in terms of how the financial sector impacts upon the wider Scottish economy, the study also examined a number of other important channels through which the sector impacts on Scotland. In total, it examined the following aspects:

- Employment in financial services, both in total and by sector
- The distribution of industry employment across Scotland

- The occupational structure of financial services in Scotland
- Wage distribution in financial services in Scotland

The definition of financial services

For the purposes of the study, "financial services", was largely defined with regard to the membership of Scottish Financial Enterprise (SFE). SFE is the sector's trade body in Scotland, and the study's data collection aspects were organised in conjunction with them. The data requirements necessary to conduct the study were onerous, and the benefits of conducting the study in conjunction with SFE were obvious, in terms of access to a company database, contact details and, in particular, the use of its good offices to increase the response rate. With SFE's backing, we were able to collect a very detailed and up-to-date set of economic data on the industry's operations.

Table 2: Scottish financial services sector

Banks
 Investment Administration
 Life Assurance & Insurance
 Merchant Banks, Finance Companies & Corporate Advisers
 Fund Managers & Investment Trusts
 Market Makers, Brokers, Dealers, Stockbrokers
 Accountants & Tax Advisers
 Corporate Lawyers
 Building Societies
 Actuaries & Insurance Advisers
 Professional Institutions

The sectoral breakdown of the industry used in the study is shown in Table 2. The definition used is largely non-controversial and simply reflects the actual composition of the industry in Scotland. However, we do note the following:

- The definition includes the relatively novel sector "Investment Administration". This sector is composed of new, externally owned operators, who are largely involved in back-office processing operations.
- We have included Corporate Lawyers within the financial services sector. While this is typically included under Other Business Services⁸, our

understanding here is that SFE member companies can properly be included as part of the financial sector because they largely undertake legal work which supports financial transactions. Other types of legal employment (for example, conveyancing, divorce and criminal work) have been excluded.

- Accountants and Tax Advisers, again typically included under Other Business Services, have also been included as part of the financial services sector.

Main findings

Employment - Survey response

Table 3 below shows the estimated level of employment in SFE member companies⁹. Note that that the level of employment shown - 59,173 Full Time Equivalent jobs - was constructed directly from questionnaires to SFE members. It is less than the number estimated by official sources, and the main reason for this disparity is that the figures have been assembled *only from SFE members*. As such, estimated employment does not cover all companies who operate in financial services in Scotland - according to government data, actual employment measures 90,600 FTE jobs¹⁰. While the questionnaire returns are used to discuss a number of aspects of the *structure* of financial services, the employment estimate is subsequently adjusted to bring it in line with official estimates, most importantly when we turn to discuss the industry's total economic impact on Scotland.

Table 3: Employment in the financial services sector in Scotland - SFE Survey response

Sector	Total	%
Banks	25,352	42.8
Investment Administration	2,600	4.4
Life Assurance & Insurance	19,446	32.9
Merchant Banks, Finance Companies & Corporate Advisers	1,149	1.9
Fund Managers & Investment Trusts	3,305	5.6
Market Makers, Brokers, Dealers, Stockbrokers	459	0.8
Accountants & Tax Advisers	2577	4.4
Corporate Lawyers	3477	5.9
Building Societies	361	0.6
Actuaries & Insurance Advisers	300	0.5
Professional Institutions	146	0.2
Total	59,173	100

As expected, the two biggest sectors are Banking and Life Insurance and Assurance, which together account for just over three-quarters of total employment. Employment is fairly small in the newest section of the industry, Investment Administration, where there are only 2,600 FTE jobs, equal to 4.4% of total employment. However, it is worth noting that all of these jobs have been created recently. Also, this figure is likely to already be out of date because several of the companies contacted were either in the process of setting up their operations, or of expanding towards their expected employment levels.

Employment distribution

Just over half (50.6%) of all financial services employment was located in Edinburgh, the traditional centre of the financial sector in Scotland, with 16% located in Glasgow, so the two main cities clearly dominated in employment terms. However, several large companies headquartered in Edinburgh and Glasgow were not able to provide a full breakdown of how their employment was distributed across Scotland, and this figure undoubtedly understates the dominance of the two main cities. Other areas also showed some significant concentrations in parts of the industry, generally because one or two companies had large offices there. These included Fife (in Building Societies), Tayside (Insurance, Fund Management) and Grampian (Fund Management).

Occupation and Wage Distribution

While the main thrust was to examine how financial services supports economic activity across Scotland, we have already noted that this is not the only reason why the sector is important to Scotland's economic welfare. For example, one interesting finding is that the direct contribution of financial services to GDP in Scotland (7%, see below) is above its contribution to employment (5%). This relatively smaller contribution to employment than to GDP provides a clue to another important finding. Labour productivity in the sector is comparatively high and this is in part accounted for by the relatively high share of employees in managerial and professional occupations. Around 34 percent of employees can be classified to the managerial and professional groups compared to a figure of about 25 percent for the Scottish economy as a whole.

The reason why the sector in Scotland offers such a high proportion of 'quality jobs' is twofold. First, financial intermediation requires sophisticated skills including bankers, accountants, actuaries, lawyers and IT professionals, as well as middle and senior management. Secondly, and crucially, the industry in Scotland

continues to retain a significant degree of domestic control with the presence of a range of headquarters functions contributing to the demand for highly skilled staff. The significance of this for the Scottish economy cannot be underestimated. It means that many skilled workers and potential senior staff have the opportunity of a career path that lies wholly within Scotland. Unlike many other manufacturing and service sector activities in Scotland, career advancement need not require a move south or abroad with the associated loss of talent to the Scottish economy¹¹.

Table 4 shows our estimates of the number of Managerial and Professional employees in financial services. Unfortunately, the figures in Table 4 again suffer from several significant omissions, particularly in that two of the major clearing banks were not able to detail the number of professional employees. The figures therefore clearly underestimate the extent of professional employment in financial services. In the one bank that did provide this data, around 9% of all staff were listed as I.T professionals, a figure that indicates the current importance of electronics skills to the Banking sector¹².

Table 4 Scottish Financial Services Sector, Managerial and Professional Employment

	Scotland	% of all Employment
All Sectors		
Managerial Employment		
Directors, Divisional Heads and Senior Managers	1,262	2.9
Middle Managers	3,330	7.8
Other Managers	3,382	7.9
All Managers	7,975	18.6
Professional Employment		
Lawyers	807	1.9
Management/Chartered Accountants	567	1.3
Bankers	3,719	8.7
Actuaries	279	0.6
IT Professionals	845	2.0
Other Professional Employees	443	1.0
All Professional	6,659	15.5
Total Employment	42,903	100.0

We can obtain a further indication of the significance of financial services by examination of its wage structure, detailed in Table 5.

Table 5 Scottish Financial Services

Numbers in each Wage Band	Number	% of all Employment
All Sectors		
Over 250K	85	0.2
250-100K	258	0.6
100-50K	1,427	3.1
50-30K	5,052	11.0
30-12K	25,496	55.5
Under 12K	13,604	29.6
Total	45,921	100.0

Wage levels undoubtedly give an indication of employee status and the analysis of wage distribution is complementary to that of occupational structure. Table 5 shows that an estimated 1770 people in responding companies¹³ earned more than £50,000, further confirmation that financial services is of considerable importance in providing talented individuals with both a career path and an incentive to base themselves in Scotland.

In addition, 85 people were paid over £250,000. These represent a small but significant number of individuals who, on the reasonable assumption that high salary indicates high business status, are clearly powerful business leaders. The ability of these individuals to achieve such status results from the presence of a healthy financial services sector in Scotland, and is plainly influenced by the fact that a significant clutch of companies are headquartered here.

Expenditure in Scotland

One key route through which the financial services sector has an impact on the wider Scottish economy is through the hiring of local labour and the purchase of goods and services from Scottish suppliers. The greater the degree of local purchases the more integrated the sector is with the local economy and the more the economy benefits from the growth of financial services. This effect is clearly one of the major determinants of the sector's wider impact on Scotland, which is discussed in detail below.

While the degree of integration varies across the sector, it nevertheless compares quite favourably with others. For example, in the three biggest sub-sectors: banking; life assurance & insurance; and fund management, 58 percent, 64 percent and 74 percent, respectively, of total expenditures are placed in Scotland. While these percentages are somewhat less than the average for

the service sector in Scotland of 86 percent, they are generally greater than the manufacturing average of 58 percent. However, these comparisons are to the disadvantage of financial services because the method of calculation of the local expenditure proportion in the comparators *assumes* that all wage expenditure is incurred in Scotland, which is unlikely to be the case. The same assumption is not made for financial services since we were able to draw directly on data from our survey. If the same assumption is applied to our data then the local expenditure rates become 83%, 76% and 77% for the three main financial sectors respectively.

Employment impact

The direct and total employment impact of financial services on Scotland is shown in Table 6.

Table 6: Employment impacts, financial services

	Initial Emp.	Additional Emp.	Total Emp.	Multiplier
Banks	28,617	29,556	58,173	2.03
Investment Administration	2,600	2,166	4,767	1.83
Life Assurance & Insurance	19,446	18,594	38,040	1.96
Merchant Banks, etc	1,149	1,660	2,809	2.45
Fund Managers & Investment				
Trusts	6,697	7,778	14,475	2.16
Market Makers, etc	459	408	867	1.89
Accountants & Tax Advisers	9,845	10,458	20,303	2.06
Corporate Lawyers	3,477	2,533	6,010	1.73
Building Societies	1,670	1,148	2,818	1.69
Professional Institutions	146	195	341	2.34
Other Financial Institutions	16,495	14,654	31,149	1.89
All Financial Services	90,600	89,152	179,752	1.98

The initial (or direct) employment is estimated at 90,600, compared to the 60,000 shown in Table 1 above. This reflects that Labour Force Survey (LFS) figures, which cover all financial services employment in Scotland, have been used to gross the SFE estimates up so that all Scottish employment in financial services is now covered by the impact analysis¹⁴.

Once the secondary impact is calculated (which arises both from wage expenditure by employees and expenditure at suppliers by the companies), we estimate that a further 89,152 FTE employees in other sectors in Scotland are related to financial services. In total, therefore, almost 180,000 FTE jobs across Scotland are related to the demands created by the financial services industry.

This finding can be placed in a wider context. LFS figures from mid-1999 estimate that there are a total of 1,692,049 FTE jobs in all sectors across the whole of Scotland. We estimate therefore that around 11% of all Scottish jobs are related, directly or indirectly, to the financial industry.

Specific sectors benefiting from these knock-on effects include retail & wholesaling, where 16,400 jobs are directly related to the financial services sector, manufacturing (7,300 jobs) other business services (7,200 jobs), other services (6,900 jobs), hotels & catering (5,800 jobs), property (5,700 jobs) and post & telecommunications (4,700 jobs).

Output impact

Table 7 depicts the effect of financial services on Scottish output.

Table 7: Output multipliers, financial services

	Initial Output	Additional Output	Total Output	Multiplier
Banks	3,086	3,555	6,641	2.15
Investment Administration	123	238	361	2.93
Life Assurance & Insurance	1,234	2,294	3,528	2.86
Merchant Banks, etc	94	181	275	2.93
Fund Managers &				
Investment Trusts	544	1,043	1,587	2.92
Market Makers, etc	29	53	82	2.83
Accountants & Tax Advisers	870	1,216	2,086	2.40
Corporate Lawyers	334	322	656	1.96
Building Societies	51	60	111	2.18
Professional Institutions	31	48	79	2.55
Other Financial Institutions	783	1,523	2,306	2.95
All Financial Services	7,179	10,533	17,712	2.47

We estimate the direct effect of financial services to be that it creates £7.18Bn of direct output in Scotland. However, when all additional impacts are included, over £17.7Bn worth of output across the whole of the Scottish economy is related to the demands created by financial services.

We can also estimate the contribution that financial services make to Scottish Gross Domestic Product (GDP). Scottish Executive data on total employee compensation is available from Scottish Economic Statistics¹⁵. Figures on this are available only up to 1997, and we have estimated 1999 figures by fitting a

simple linear regression time trend to the Scottish Executive's data. Via this procedure, we estimate that total employee compensation paid by all industry in Scotland in 1999 equalled approximately £38Bn. We estimate below that financial services supports direct income of some £2.63. Using the assumption that the financial sector has the same share of Other Value Added as Scotland as a whole, this means that almost 7% of all Scottish output in 1999 is related to the financial services sector.

This suggests that, in these terms, the industry make a similar direct contribution to GDP as the electronics sector, which contributed about 6 percent to GDP on 1995 figures.¹⁶ Comparisons with sectors can be invidious, since they are sensitive to the level of aggregation embraced by the sectoral definition. Yet, it is clear that the value of the financial services product is greater than that produced in most manufacturing sectors – as normally defined – while it is less than that in the public sector¹⁷, in retail & wholesaling and in real estate and business services¹⁸.

Table 8 compares the output multipliers derived in the study for the financial services sector against other service sector output multipliers reported by the (then) Scottish Office. The output multiplier derived here (2.47) is greater than the majority of those shown. This can be interpreted as meaning that an increase in output in financial services is particularly effective in creating further demands for Scottish output via indirect and induced effects. In addition, we note that the output multipliers derived for the two main sectors, Banks and Life Assurance & Insurance (which measure 2.15 and 2.86 respectively) are greater than those estimated by the Scottish Office for these two sectors.

However, readers should note that part of this difference arises because we have used different assumptions from those employed by the Scottish Office to calculate the multipliers we have reported here. Our method includes the effects on Scotland of demands made by the sector's non-Scottish based facilities. For example, several of the larger operators have activities based in London (because of its position as a market centre in financial services) yet make demands for Scottish goods and services. We argue that these impacts are a legitimate part of the Scottish financial sector's impact on the Scottish economy and should therefore be included in the multiplier estimates. However, this inclusion would clearly inflate multiplier values relative to those derived by the Scottish Office, and so they are not strictly comparable with the Scottish Office figures.

Table 8: Output multipliers

Retail Distribution	1.76
Hotels and Restaurants	1.71
Telecommunications	1.72
Banking	1.65
Insurance and pension	1.99
Auxiliary to Insurance	1.44
Real Estate	1.72
Computer and Related Services	2.06
Legal Activities	1.83
Accountancy Services	1.83
Market Research	2.09
All financial services	2.27

Income impacts

The Income effects are detailed in Table 9. While the initial income paid to wage earners in Scotland comes to £2.63Bn, we estimate that a total of £4.53Bn worth of wage income in Scotland is related to financial services.

Table 9: Income multipliers, financial services

	Initial income	Total income	Multiplier
Banks	744.5	1,289	1.73
Investment Administration	38.1	79	2.08
Life Assurance & Insurance	591.9	926	1.56
Merchant Banks, etc	28.3	60	2.11
Fund Managers & Investment Trusts	328.6	469	1.43
Market Makers, etc	17.0	25	1.44
Accountants & Tax Advisers	245.9	439	1.79
Corporate Lawyers	85.0	130	1.53
Building Societies	38.8	59	1.53
Professional Institutions	6.0	9	1.57
Other Financial Institutions	505.8	1,051	2.08
All Financial Services	2,630.03	4,536.31	1.72

Suggested policy responses

The FAI study has identified the benefits that Scotland receives from financial services, and demonstrated several facets of its considerable importance to the economy. Against this background, it is reasonable to ask what the role of government policy should be towards the sector. Traditionally, industrial policy has tended to support ailing industries, with the result that successful sectors such as finance have received little if any government support. However, in recent years the focus of policy has moved towards promoting economic development, with support given to sectors and activi-

ties with development potential. The most obvious example of this is the cluster policy of Scottish Enterprise where Action Plans have been developed for the semiconductor, biotechnology, and food & drink sectors. Would there be any benefits to Scotland in developing a similar approach in financial services?

There is little doubt that the financial services sector has the potential for further economic development. Financial services are in increasing demand as incomes rise generally, and as tastes change in favour of greater private sector provision in areas such as pensions.

The industry would also seem to have the potential to be the motor of a cluster if its growth can generate substantial spillover benefits elsewhere in the economy. On the face of it, financial services offers many of the advantages that could be said to constitute a potential cluster: it is well integrated with the local economy, with the potential for further integration; competition is strong; it is dynamic and innovative; and it is geographically focused.

However, the sector is also subject to a number of present and future threats. These include the threats posed by the risk of take-over of key local firms, the trend towards de-mutualisation, the lack of sufficient size and flexibility in key sub-sectors such as fund management, which is hampering performance, and increased competition due to the growth of e-commerce. Further study is clearly required to establish whether these threats are limiting the development of financial services in Scotland. Such a study is necessary to gauge the nature and scale of the problems and the necessity for state intervention; it could profitably be sponsored jointly by government and SFE.

The present study has identified some of the benefits that Scotland receives from financial services. What is required now is for the Scottish Executive to take a more active role and collaborate with the sector to ensure that such benefits can be enhanced and sustained.

Summary and conclusions

The recent study by the Fraser of Allander Institute clearly demonstrates the importance of financial services to Scotland, and has gone some way towards rectifying what was an important gap in the design of local economic policy making. Financial services are an important aspect of Scotland's current economic wellbeing, as the study clearly demonstrates, but they are likely to remain so for the foreseeable future.

Indeed, its contribution is if anything likely to grow as incomes rise and as we see greater private sector provision of financial services. With this in mind, it would perhaps be wise to note, and to remember for the future, the observation made recently by one of the leading figures in Scottish economic history:

*"In the private sector, the jewel in the crown is finance."*¹⁹

Endnotes

¹ Scottish Business Insider, January 2000

² Behind the UK, Switzerland, Spain, Germany and Italy but ahead of France, Belgium, Scandinavia and Ireland.

³ "2000 International Target Cities Report" – Thomson Financial.

⁴ See below for a definition of this.

⁵ Additional data were collected on finance organisations that were not members of SFE, while adjustments had to be made to allow for those SFE members who did not respond to the surveys.

⁶ This re-expenditure creates what are termed the induced and indirect effects of financial services.

⁷ The FAI's Scottish Input Output Model draws on the Scottish Input Output tables, which describes the sales and purchase transactions between 123 Scottish industries. The tables are now provided annually by the Scottish Executive.

⁸ In the industrial categorisations defined by the government.

⁹ The estimated employment is on an FTE basis, and includes full-time, part-time and temporary employment.

¹⁰ This figure included Accountants and Tax Advisers, whom the government includes as part of Other Business Services.

¹¹ The take-over of NatWest by the Royal Bank, which occurred after the study was completed, will serve further to reinforce this trend, since a new world HQ for the merged organisation is to be created in Edinburgh.

¹² The total employment figure in Table 4 is again affected by the lack of responses by some companies.

¹³ Which is clearly less than the total numbers employed by financial services.

¹⁴ There are two major differences between the SFE and LFS figures. The first is that employment in some sectors has been increased - employment in Banking,

for example, goes up to 28,617 FTE jobs, and Accountants and Tax Advisers to 9,845. Secondly, we have included the Labour Force Survey sector, Other Financial Institutions, which includes Leasing, Other Credit Granting, Other Insurance and Other Financial Institutions.

¹⁵ See Scottish Economic Statistics, Table 1.1

¹⁶ Gross value added in Scottish electronics has grown more quickly than Scottish GDP since 1995, so it follows that its share of GDP must also have risen.

¹⁷ Defined as public administration, education and health.

¹⁸ On the basis of 1995 data, the public sector contributed 21 percent to GDP, while retail & wholesale and real estate & business services had shares of 10% and 15% respectively.

¹⁹ T. M. Devine, *The Scottish Nation 1700-2000*, Allen Lane (1999) (p.595)

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