

# **Methodology of the Monthly Index of Services**

## **Activities Auxiliary to Financial Intermediation**

### **Industry Review**

#### **Introduction**

At the launch of the experimental Index of Services (IoS) in December 2000, a commitment was made to review and improve where practical, the sources and methods used to measure the service sector. This paper outlines the findings of the Activities Auxiliary to Financial Intermediation Industry Review.

#### **Summary**

The industry review for Activities Auxiliary to Financial Intermediation (known hereafter as financial auxiliaries) has made the following recommendations.

- Introduce Euronext London International Financial Futures Exchange (LIFFE) total volume of transactions series
- Introduce unit and investment trust fund value data as a proxy for the output of fund managers
- Introduce total financial assets for insurance and pension funds to measure the output of institutional funds under management
- Maintain the proposition that transaction data for key financial instruments are suitable proxies for securities dealers and other activities nec
- Introduce the findings of the insurance and pension funding review as a proxy for the activities auxiliary to insurance and pension funding

Although the methodology will be changed all the way back to 1994 in the IoS and GDP(O) systems, only the period from 1995 will be revised.

#### **How important are Financial Auxiliaries?**

In terms of gross value added (GVA) weights in 2003, financial intermediation (SIC<sup>1</sup> Division 67) represents:

- 1.4% of the IoS
- 1.0% of Total GVA

Financial Intermediation is published as part of the Business Services and Finance<sup>2</sup> component within the IoS.

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<sup>1</sup> The SIC is the Standard Industrial Classification, and this is the classification system used in the UK to define industrial groupings. The 4-digit refers to the level of detail and is generally the level at which data is collected and aggregated from within GDP(O) and IoS. More detail on this can be found in the IoS Methodology documentation

## Methodology

### Previous methodology<sup>3</sup>

Within Division 67 there are four 4-digit SICs<sup>4</sup>, which are organised into three groups in IoS and GDP(O). Table 1 below gives the detail of the groups as well as the methodology that was previously used:

**Table 1**

SIC	Description	Output indicator	Source	Deflator	Weight in 2000 (GDP=1000)	% of division
67.1	Activities auxiliary to division 65	Number of transactions in:	LSE	None	0.4	4.6%
		1. British government securities with up to 7 years to maturity	LSE	None	0.6	6.6%
		2. British government securities with over 7 years to maturity, or undated	LSE	None	3.0	33.8%
		3. Stock exchange transactions: equities	LSE	None	0.0	0.3%
67.2	Activities auxiliary to division 66	4. Stock exchange transactions: other fixed interest	LSE	None	0.0	0.3%
		HE on the administrative costs of life assurance and pension funds	ONS	Deflated at source	12.8	98%
		1. Annual net premium income from UK motor insurance (£m)	ABI	1. HE deflator: Vehicle insurance	0.3	2%
		2. Annual net premium income from USA motor insurance (£m)		2. HE deflator: Vehicle insurance adjusted *		
		3. Annual net premium income other than from UK or USA motor insurance (£m)		3. HE deflator: Vehicle insurance adjusted ^		
		4. Annual net premium income from UK non-motor insurance (£m)		4. i. RPI: Household goods ii I implied index of GB construction costs		
		5. Annual net premium income from USA non-motor insurance (£m)		5. i. RPI: Household goods ii Implied index of GB construction costs adjusted *		
6. Annual net premium income other than from UK or USA non-motor insurance (£m)		6. i. RPI: Household goods ii Implied index of GB construction costs adjusted ^				

For the activities auxiliary to financial intermediation excluding insurance and pension funding, transaction data on government securities and equities from the London Stock Exchange were used to measure changes in output.

For the activities auxiliary to insurance and pension funding data specific to the industry have been available, so the convention has been to use the indicators for division 66 as a proxy.

<sup>2</sup> This covers the following sections of the UK SIC: J Financial Intermediation, K Real Estate, Renting and Business Activities

<sup>3</sup> In this report, the previous methodology refers to the methodology used prior to Blue Book 2006, and the new methodology to the methodology taken on at Blue Book 2006

<sup>4</sup> See SIC 2003 documentation for details of the full breakdown of division 92 in the UK SIC - <http://www.statistics.gov.uk/sic2003>

## Reasons for review

The main reasons for reviewing the financial intermediation industry were as follows:

- The structure of the industry has changed since the current methodology was introduced
- A number of series are being proxied using indirect methods
- There are a number of areas that are not being covered properly at the moment
- Progress from Eurostat on guidance for price and volume measurements – embodied in the manual published October 2001.

## What should we be doing?

In 2001, Eurostat (European Union's Statistical Office) published the '[Handbook on Price and Volume Measures in National Accounts](#)'. The handbook provides guidance by product, on what price and volume methods should ideally be used (A methods), are acceptable methods (B methods) and those methods that should not be used (C methods). The handbook has been written in the context of annual data but the same rules apply to sub-annual data.

The output of financial intermediary services has two main components that the Eurostat price and volume handbook suggest should be treated separately.

Only general advice is provided for this division on how to measure fixed and ad valorem fees. In the case of fixed fees, where separate prices exist for a charged-for service, current price output deflated by a Producer Price Index (PPI) is an A method if changes in quality are reflected or a B method if quality change is not reflected.

For services subject to ad valorem charges, the use of volume indicators is a B method. The appropriate indicator depends on the activity. Such volume indicators can include number of transactions broken down by value size classes or deflated transaction amounts. For auxiliaries to insurance, volume indicators based on the number of insurance policies by type or deflated gross premiums is a B method.

## **Issues faced by the industry review**

### **67.11 - Administration of Financial Markets**

#### Key feature

In the UK, this translates to the various exchanges that facilitate the trading of equities, gilts, bonds, futures, derivatives, fixed interest, foreign exchange, options, swaps, commodities, etc. The following exchanges are the ones recognized by the FSA for the UK:

- London Stock Exchange
- London Metals Exchange
- EDX London (derivatives market - part of LSE)
- Euronext LIFFE
- Virt-x
- ICE Futures (formerly International Petroleum Exchange)

## Issues

- Is it worth extending data collection to the other exchanges based in the UK? i.e. including commodities, futures, derivatives markets?
- Can the breadth of indicators be widened for this industry?

The review found that although there are other exchanges, given that this group is only a small part of the whole division, the only other significant exchange is the Euronext LIFFE. The review concluded that while the current indicators are appropriate, LIFFE should also be included in the methodology (derivatives transaction volumes for London), due to their size in comparison to the LSE.

The review also concluded that including other traded instruments would be of little value, as most of the revenue comes through trading bonds and equities. One unresolved issue is that exchanges do earn a significant proportion of their income from selling their information (i.e. real-time prices) via trading terminals. Ideally the number of terminals should be used, but this does not appear to be a variable that is collected – but again this would only account for a small proportion of the output of the division.

## Recommendation

### **1. To augment the LSE data with Euronext LIFFE total volume of transactions series**

#### **67.12/1 - Fund management activities**

International Financial Services London<sup>5</sup> (IFSL) define the following types of fund manager:

- insurance companies (33%)
- retail and investment banks (18% each)
- pension funds (6%)
- fund managers not linked to banks or insurance companies (17%)
- with other accounting for 6%

This is a difficult activity to pin down to one particular SIC, as the activity spans the whole financial intermediation section. The review has recommended that the output of fund managers should be the same as the output of the trusts industry in division 65. This is justified as both trusts and fund managers earn income from ad valorem charges on fund values.

In the financial intermediation review of division 65, the methodology for other financial intermediaries will be changed from an annual/quarterly investment, unit and property trust series to a monthly unit and investment trust indicator<sup>6</sup>. This is basically akin to the retail market of fund management. These new data sources come from the Investment Management Association and the Association of Investment Trust Companies.

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<sup>5</sup> See link for full report - [http://www.ifsl.org.uk/uploads/CBS\\_Fund\\_Management\\_2005.pdf](http://www.ifsl.org.uk/uploads/CBS_Fund_Management_2005.pdf)

<sup>6</sup> Please see 65 paper for more info - [http://www.statistics.gov.uk/iosmethodology/future\\_improvements.asp](http://www.statistics.gov.uk/iosmethodology/future_improvements.asp)

For institutional funds, given their importance, the review recommended using the total financial assets of the insurance and pension funds sector as an indicator. Data for this are in an ONS survey and published in the sector accounts. While the levels are only collected annually, changes in assets are collected quarterly and a quarterly path is derived from this.

For these three new series, the deflator will be based on asset prices, otherwise changes in the value of equities could lead to an increase in the volume of output of fund managers. The most appropriate indicator is the FTSE Actuaries All Share index as this covers the full range of equities.

### Recommendations

- 2. Introduce the unit and investment trust output indicators as proposed for 65.23 for retail funds deflated by FTSE Actuaries All Share index**
- 3. Introduce total financial assets for insurance and pension funds for institutional funds deflated by FTSE Actuaries All Share index**

## **67.12/2 - Security broking and related activities**

### Key features

This group covers the following:

- dealing in financial markets on behalf of others (e.g. stockbroking) and related activities other than fund management
- corporate finance companies
- activities of custodians and settlement services
- asset management

### Issues

- Should securities dealers income data be used instead of transaction data?

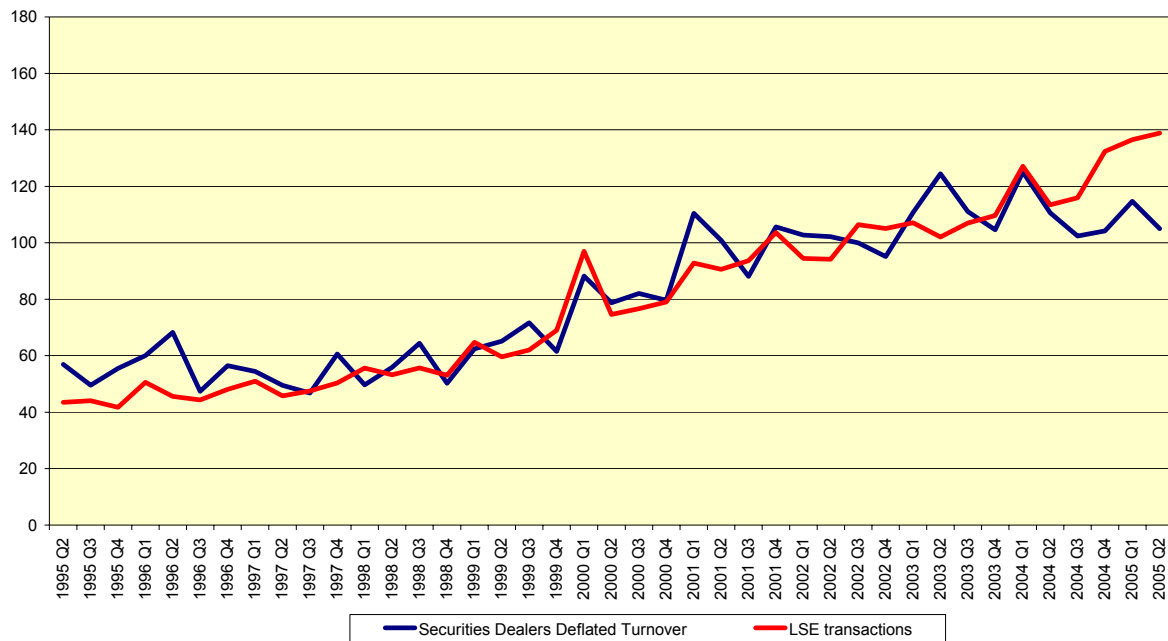
### *Securities dealers income*

For this activity the review has found that while a transaction volume indicator would intuitively be appropriate, in practice, brokers revenue is also linked to market volatility as well as transaction levels. The ONS publishes a quarterly survey of securities dealers which looks at income and expenditure and assets and liabilities. This survey shows that their income is shared equally between market making, commissions and interest and dividends.

The income data was reviewed as a possible indicator, with the FTSE Actuaries All Shares Index used as a deflator. This was justified by comparing the industry with wholesaling, where we assume that the wholesale price is a function of the underlying price of the good. In this case we are assuming that the price of equities is linked to the output price of dealers.

**Figure 1**

**Comparison of deflated securities dealers income and London Stock Exchange transactions  
(Indexed - 2002=100)**



However, as the graph above shows, there is a similar trend in the deflated income and transactions data. There is more volatility in the income data series as this is based on a survey. Since the underlying unit of output of securities dealers are the securities themselves, and the trend in the series are very similar (backing up this theory), the review recommended maintaining the LSE equities transaction series to measure output, as this is not prone to sample/survey error and is available on a monthly basis rather than quarterly.

### Recommendation

#### **4. Use the LSE and LIFFE transactions series to measure the output of securities dealers**

### **67.13 - Activities auxiliary to financial intermediation not elsewhere classified**

#### Key features

This industry contains three significant activities:

- financial advisors / mortgage brokers
- foreign exchange brokers / bureau de change
- hedge funds

While the hedge funds are not explicitly mentioned in SIC 2003, by definition it is excluded from fund management as they are unregulated.

#### Issues

- availability of data sources for this industry

### *Availability of data sources*

After reviewing the data availability for these areas, only one viable source for foreign exchange was found to be available. A triennial survey of foreign exchange broking and derivatives has been carried out by the Bank of England for the Bank of International Settlements, and this was converted to a six-monthly survey in January 2005.

While this may be of use, its recent conversion to sub-annual data collection means that it is too early to use such a dataset. The review has found that no suitable data are collected for IFAs and whilst there are attempts at estimating the size of the hedge fund market, there is no definitive robust data source for this at present.

Therefore on balance, there are no plausible data sources that could be used for this group.

### Recommendation

**5. Allocate the GVA weight of other financial activities auxiliary to financial intermediation not elsewhere classified across the rest of the group**

## Who was consulted as part of the Industry Review process?

Within the ONS, there was comprehensive consultation with relevant teams both within National Accounts and in the survey areas. In terms of external consultations we are grateful to the assistance received from:

- Association of Investment Trust Companies,
- Bank of England
- Eurostat
- Fitzrovia
- Investment Management Association
- London Stock Exchange

## New methodology

In summary the industry review for division 67 has made the following recommendations that were implemented at Blue Book 2006.

- Introduce Euronext LIFFE total volume of transactions series
- Introduce unit and investment trust fund value data as a proxy for the output of fund managers
- Introduce total financial assets for insurance and pension funds to measure the output of institutional funds under management
- Maintain the proposition that transaction data for key financial instruments are suitable proxies for securities dealers and other activities nec
- Introduce the proxies recommended by the insurance and pension funding review as a proxy for the activities auxiliary to insurance and pension funding

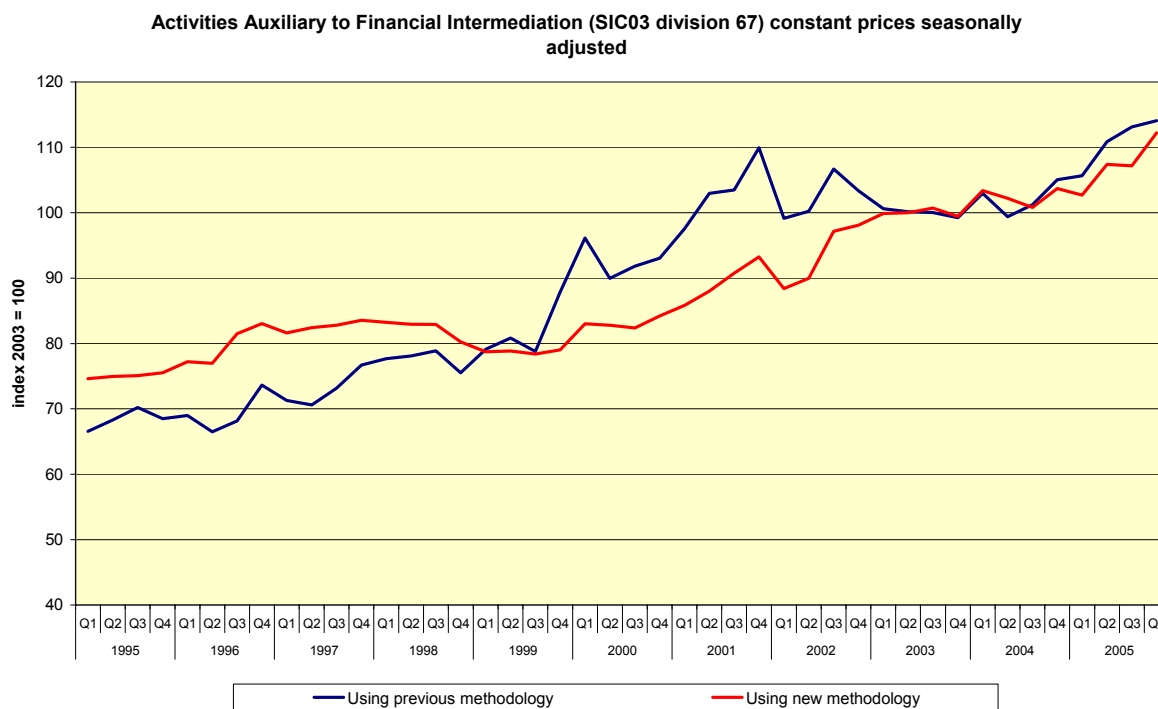
## Benefits and issues of new methodology

<b>Benefits</b>		<b>Assumptions</b>
More detailed indicators use to measure the output of this division	<b>V</b>	The output of stockbrokers moves in line with exchange transactions
Coverage of fund management		The output of fund managers moves in line with deflated fund values

## Impact of new methodology

The graph below shows the impact of the new methodology on Division 67. The data has been revised back to January 1995. This in line with the open period for revisions set-out in the National Accounts Revisions Policy for Blue Book 2006.

Figure 2



## Contact Information

Any questions or comments on this article are welcome, as are offers to participate in the process of improving industry sources and methods. Any enquiries should be addressed to:

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## Annex

### Comparison of new and old methods

PREVIOUS METHODS						PROPOSED METHODS					
SIC	Industry description	Class	Output indicator	M/Q/A	Deflator	New Group	New Class	New output indicator	M/Q/A	New deflator	New GVA weight
67.1	Activities auxiliary to division 65	671101	Number of transactions in: 1. British government securities with up to 7 years to maturity	M	None	67.1	671101	1. LSE transactions: British government securities with up to 7 years to maturity	M	None	0.1
							671102	2. LSE transactions: British government securities with over 7 years to maturity, or undated	M	None	0.2
							671103	3. LSE transactions: equities	M	None	1.0
							671104	4. LSE transactions: other fixed interest	M	None	0.0
		671102	2. British government securities with over 7 years to maturity, or undated	M	None		671105	5. LIFFE derivatives transactions	M	None	1.0
		671201	3. Stock exchange transactions: equities	M	None		671211	6. IMA total unit trust fund value at end of month	M	FTSE All Shares Index	0.6
		671202	4. Stock exchange transactions: other fixed interest	M	None		671212	7. AITC total investment trust fund value at end of month	M	FTSE All Shares Index	0.1
								671213	8. ONS: Total financial assets at end of period £bn (S125 - Insurance & Pension Funds)	Q	FTSE All Shares Index
67.2	Activities auxiliary to division 66	672001	As per methodology for 66.01/2	Q	None	67.2	672001	Life insurance output indicator	A	None	1.7
		672002	As per methodology for 66.03	A	None		672002	Pension funding output indicator	A	None	1.7
							672003	Non-life insurance output indicator	Q	None	2.5

#### Key:

AITC – Association of Investment Trust Companies

IMA – Investment Management Association

LSE – LSE

LIFFE – London International Financial Futures Exchange

Class weights as at 2000 - consistent with BB2006 data

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