

Methodology of the Monthly Index of Services

Supporting and Auxiliary Transport Activities; Activities of Travel Agents 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 Supporting and Auxiliary Transport Activities; Activities of Travel Agents Industry Review.

Summary

The industry review for supporting and auxiliary transport activities; activities of travel agents (known hereafter as supporting transport services) has recommended:

- to introduce more relevant Corporate Services Price Indices (CSPIs) to replace the general miscellaneous transport deflator
- to introduce a more relevant deflator for other supporting land transport activity
- to introduce ONS turnover data to measure the output of other supporting water transport activity
- to introduce commission data to measure the output of travel agents

Although the methodology will be changed all the way back to 1994 in the IoS system, only the open period from 2002 will be revised. The main impact of the new methodology is stronger growth in 2002 and 2003, but weaker growth in 2004.

How important are Supporting Transport Services?

In terms of gross value added (GVA) weights in 2002, supporting transport services (SIC¹ Division 63) represents:

- 2.7% of the IoS
- 1.9% of Total GVA

Supporting transport services is published as part of the Transport and Communication² component within the IoS.

¹ 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

² This covers the following sections of the UK SIC: I Transport, Storage and Communication

Methodology

Previous methodology³

Within Division 63 there are 6 4-digit SICs⁴. Table 1 below gives the detail of the groups as well as the methodology that was previously used:

Table 1

Group /Class	Industry Description	Output Indicator	Source	Current Deflator	GVA weight per 1000	Weight within division
6310	Cargo handling and storage	Deflated gross turnover (£million)	MIDSS	HE Miscellaneous transport deflator	3.0	16%
6321	Other supporting land transport activities	Deflated gross turnover (£million)	MIDSS	HE Miscellaneous transport deflator	2.2	12%
6322	Other supporting water transport activities	1. Volume of exports (2001=100)	BoP		0.3	2%
		2. Volume of imports (2001=100)	BoP		0.3	2%
		Annual benchmark series for 1 and 2 a. Bulk fuel traffic at major UK ports (thousand tonnes) b. All other traffic at major UK ports (thousand tonnes) c. Ship arrivals at UK ports (number)				
		3. Interpolated from annual series for volume of freight moved on UK waterways (tonne-km)	DfT		0.6	3%
6323	Other supporting air transport activities	Index of airport services (2001=100)	CAA		3.8	20%
6330	Activities of travel agencies and tour operators; tour assistance activities n.e.c.	Deflated gross turnover (£million)	MIDSS	HE Miscellaneous transport deflator	4.4	23%

MIDSS – Monthly Inquiry into Distribution and Services Sector, HE – Household Expenditure, BoP – ONS Balance of Payments, DfT – Department for Transport; CAA – Civil Aviation Authority

Three of the six groups (6310, 6321 and 6330) used deflated turnover as the proxy to measure GVA. This is provided via ONS's Monthly Inquiry into the Distribution and Services Sector (MIDSS). The deflator used for each group was a miscellaneous transport deflator.

For other supporting water transport activities, the indicators used were the top-level of imports and exports, benchmarked onto more detailed annual data on traffic at UK ports.

For other supporting air transport activities, data from the Civil Aviation Authority was used, which mainly covers numbers of passengers and cargo passing through air terminals.

³ In this report, the previous methodology refers to the methodology used prior to Blue Book 2005, and the new methodology to that taken on at Blue Book 2005

⁴ See SIC 2003 documentation for details of the full breakdown of division 63 in the UK SIC - <http://www.statistics.gov.uk/sic2003>

Reasons for review

The main reasons for reviewing the supporting transport services industry were as follows:

- the miscellaneous transport deflator is used for three industries to which it is inappropriate
- MIDSS are available for other supporting water transport activities for which we are currently using top level volume data
- for travel agents, output should be measured using their commission, not the total turnover, data are available on this
- progress from Eurostat on guidance for price and volume measurements – embodied in the manual published October 2001

What should we be doing?

In October 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 very different ways in which prices are determined for these products makes it difficult to define a classification of methods by product. It is easier to classify methods in terms of the way prices are determined. Generally, detailed quality adjusted price indices are A methods, whereas volume indicators and less detailed or non-quality adjusted price indices are B methods. More guidance on this can be found in the annex.

Issues faced by the industry review

Each group will be looked at individually, rather than generalising by issue as has been the practice with previous reviews. Therefore, each section will review key features, output definition, issues and recommendations.

6310 Cargo Handling and Storage

Key features

This group is divided into two classes, cargo handling, and storage and warehousing. The cargo handling component includes loading and unloading of goods or passengers luggage irrespective of the mode of transport. The storage and warehousing class includes the operation of storage and warehouse facilities for all kinds of goods.

Output definition

The output of this group is based on the number of items on which the service is provided, plus the volume and time of service used.

Issues

- Should VAT be used instead of MIDSS?
- The HE Miscellaneous Transport implied deflator is used - which is inappropriate to this industry.

MIDSS v VAT

The VAT is fairly erratic in comparison to the MIDSS, which has a gentle smooth upward trend. In previous reviews, the case for MIDSS as opposed to VAT has already been set-out. This can be found as an annex to this paper. This has been a recurring theme throughout this review and this conclusion applies to the rest of this division.

HE Miscellaneous Transport deflator

The household deflator was being used to deflate a business to business service, with the main item being removal services. It was clear that this was an inappropriate choice of deflator. However, there is no CSPI specific to this industry, and the only available options are the Freight Forwarding and Road Freight CSPIs.

- Freight Forwarding is mostly international (6310 being domestic) and consists of agencies transporting freight from factory gate to ports and onwards to their final destination.
- Road Freight contains a fairly large component (roughly 20%) dedicated solely to 'Warehousing and Distribution'. Also, the majority of 6310 is 'Storage and Warehousing' and this includes logistics companies, which make-up of which 'Haulage' makes up a further 50% of the Road Freight CSPI.

Hence, from the deflators available, the CSPI for Road Freight is our best option.

Recommendation

1. To replace HE Miscellaneous Transport deflator with Road Freight CSPI

6321 Other Supporting Land Transport Activities

Key features

This group includes activities related to land transport of passengers, animals or freight: Operation of terminal facilities such as railway stations, bus stations and operation of roads.

Output definition

The output of this group is based both on the amount of time the service has been used and also the weight of items on which the service is provided.

Issue

- The HE Miscellaneous Transport implied deflator is used - which is inappropriate to this industry.

HE Miscellaneous Transport deflator

As for 6310, a household deflator was being used to deflate a business to business service. This industry is dominated by the rail infrastructure operator, with the remainder made up of car park companies.

Again, no CSPI is available for this industry. In these circumstances, the review has deemed that the best available deflators in the circumstances are:

- Labour and Supervision in Civil Engineering series from DTI
- RPI for Car Parks

Essentially, Network Rail can be regarded as an engineering company responsible for the maintenance and upgrade of the UK rail network. Train Operating Companies pay Network Rail for access to the rail network and in 2003/4, this accounted for 72% of their turnover. The access charges are set by the Office of Rail Regulation to reflect the maintenance and upgrade work in Network Rail's business plan. Since this is very difficult to price directly, it would make sense to try and price the underlying costs of Network Rail - i.e. the costs of engaging in civil engineering. The DTI index is the best available price index to reflect this.

Recommendation

2. To replace the HE Miscellaneous Transport deflator with a weighted deflator of DTI's Labour and Supervision in Civil Engineering Index and the RPI for Car Parks

6322 Other Supporting Water Transport Activities

Key features

This class includes activities related to sea transport of passengers, animals or freight: Operation of terminal facilities such as harbours and piers.

Output definition

The output of this group is mainly business to business and often unique or not widely used, so output can depend on activity.

Issues

- Should turnover data be used instead?
- What deflators are available?

Turnover data

MIDSS are collected for 6322 but have not been used. The previous methodology uses the top level volume of exports and imports benchmarked onto annual DfT data. When the MIDSS data are compared with the previous volume indicator the turnover data is more volatile – which is not a surprise when you consider what each indicator represents. VAT turnover was also considered, it shows the same trend as MIDSS, but is more volatile. In previous reviews, the case for MIDSS as opposed to VAT has already been set-out. This can be found as an annex to this paper.

Deflation

There is no CSPI specific to this industry. Of the CSPIs, the most relevant upon review has been freight forwarding. Freight forwarding is an all-embracing service, whereby agencies will transport freight from factory gate to ports and onwards to their final destination. It therefore includes elements of road freight, cargo handling, port fees, storage and transportation. Therefore the prices of companies within this group are a component in freight forwarding. Sea freight accounts for around a third of the freight forwarding CSPI. In the circumstances this would be the best deflator available.

Recommendation

3. To introduce MIDSS for Other Supporting Water Transport Activities

4. To introduce the CSPI deflator for Freight Forwarding

6323 Other Supporting Air Transport Activities

No changes have been recommended for this group at this moment in time.

6330 Activities of Travel Agencies and Tour Operators; Tourist Assistance Activities n.e.c.

Key features

This group includes travel agency activities such as selling of tickets and packaged tours, activities of tour operators and tour guides.

Issues

- Should we be measuring commission or turnover?
- The HE Miscellaneous Transport implied deflator is used - which is inappropriate to this industry.

Commission or Turnover?

According to Eurostat guidance⁵, the output of travel agents and tour operators should be handled differently. For travel agents, the full cost borne by the purchaser is not the output, as the output is either a direct charge (if a fee or commission is charged), or as the difference between the full payment and the total expenditure on the transport and accommodation provided. In effect a margin output. However, for tour operators, the cost borne by the purchaser is the output as these organisations are regarded as repackaging a number of different services into one final product.

The MIDSS turnover data for this group is split into travel agents and tour operators, and commission and turnover data for both. In line with the guidance, the review has recommended using the commission data for travel agents but continue using turnover data for tour operators.

HE Miscellaneous Transport Deflator

As mentioned in 6310, the previous deflator is clearly an inappropriate choice of deflator. The best available option is the RPI for UK and Foreign Holidays.

Recommendation

- 5. To introduce commission data for travel agents**
- 6. To deflate using the RPI for UK and Foreign Holidays**

6340 Activities of Other Transport Agencies

This industry has already been reviewed and new methods implemented at Blue Book 2003.

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 and prices areas. In terms of external consultations we are grateful to the assistance received from the Civil Aviation Authority, Department for Transport and Department of Trade and Industry.

⁵ See section 4.8.3 of the Handbook on price and volume measures in national accounts

New methodology

In summary the industry review for division 63 made the following recommendations that were implemented at Blue Book 2005:

- to introduce more relevant CSPIs to replace the general miscellaneous transport deflator
- to introduce a more relevant deflator for other supporting land transport activity
- to introduce MIDSS turnover data to measure the output of other supporting water transport activity
- to introduce commission data to measure the output of travel agents

Benefits and assumptions of new methodology

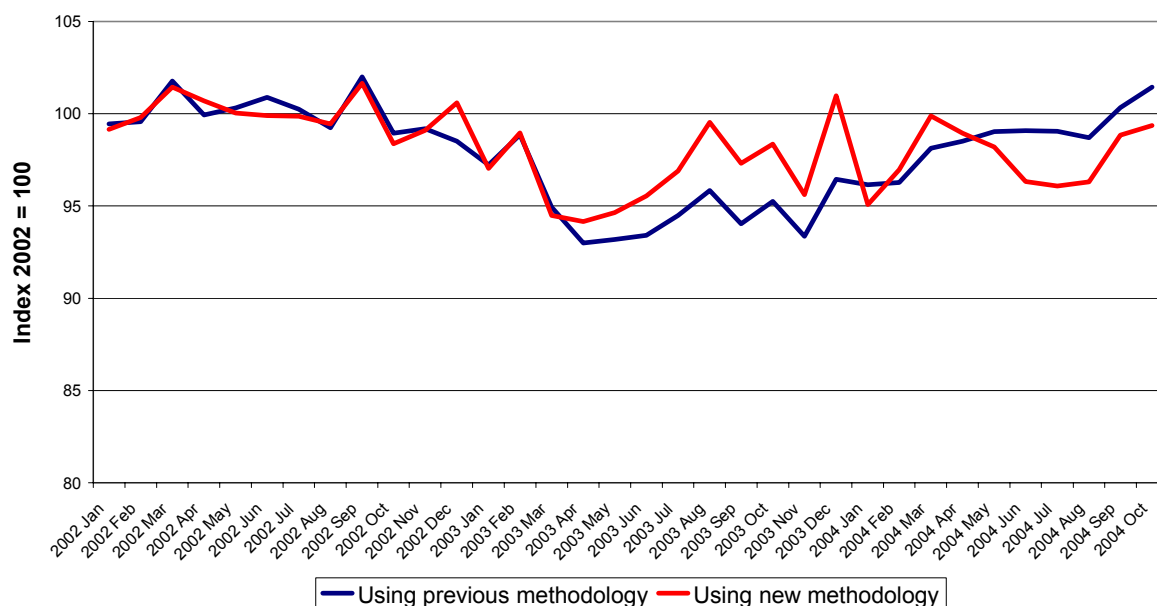
Benefits	&	Assumptions
Where MIDSS have been introduced, data will now be available for 1st estimate of IoS and second estimate of GDP(O)		Some of the deflators that have been recommended are not specific to the industries concerned
Good quality briefing information		
MIDSS give better coverage of divisions 63		
MIDSS consistent with other areas of services		
More appropriate deflators being used		
Using commission data for travel agents means that the correct concept of output is being measured		

Impact of new methodology

The graph below shows the impact of the new methodology on Division 63. The data has been revised back to January 2002. This in line with the open period for revisions set-out in the National Accounts Revisions Policy for Blue Book 2005.

Figure 1

Supporting transport activities (SIC Division 63)
chained volume measures seasonally adjusted



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 1 – Detailed guidance on recommended methods for supporting transport activities

Where prices are set according to the amount of time used, price indices that reflect the change in unit price will be an A method. The use of volume indicators that are time based (minutes, hours, days, weeks etc depending on the charging period) would be B methods. If pricing is banded into time units with different unit prices for bands, ie the two-hour rate is not twice the one-hour rate, volume indicators would need to reflect these bands to be B methods.

For services where the charge is dependent on both time and volume, price indices would need to reflect these characteristics to be A methods. Where many rates are available for a service charged in this way it may be more appropriate to use model pricing and this would also be an A method providing the models were representative of the full range of services produced. Volume indicators would need to take account of both the time and the volume, for example, volume indicators for storage should be measured in cubic metre days or an equivalent that related to the charging method used for the supply of the service.

Where the service charge is directly related to the number or weight of items on which the service is provided, the use of appropriate price indices would be an A method provided account is taken of changes in quality or a B method if not. Volume indicator methods that relate to the number or weight of items handled would also be a B method.

Where services are provided against payment of a fixed fee the use of appropriate price indices would be an A method. The use of model prices would also be an A method providing the models are representative of the full range of services provided. Changes in quality can be an important factor for services provided by a fixed fee and if this is not reflected in the price indices their use would be a B method. Volume indicator methods would also need to take account of changes in quality to be B methods

Annex 2

Comparison of MIDSS and VAT turnover (form Hotels and Restaurant Industry Review Report).

Table 2

VAT Benefits		VAT Quality Issues
Data represent a virtual census of the business population, except those under the VAT threshold	V	Latest month's estimate based on a forecast as the data is not available in time (VAT data is only usable after 9 weeks)
Data are free of charge. Compliance is mandatory so no additional burden on business from ONS use of the data		No briefing is provided with the VAT data
		Data are only part-monthly, coming from a combination of monthly and quarterly contributors
		Estimation relies on the regularity of response rates at each delivery
		There is no ONS control over the data source
		The turnover definition used by HMCE is not consistent with the MIDSS definition
		Does not use the IDBR
MIDSS Benefits		MIDSS Quality Issues
Latest month's estimate based on real data, not a forecast	V	Sample sizes for smaller businesses are relatively small, but large businesses are fully enumerated
Data are monthly		Ratio estimation and rotational sampling tend to cause high levels of volatility in the data (although rotation adjustments partly address this) ⁶
Good briefing information available		MIDSS for Division 55 are collected inclusive of VAT, whereas all other MIDSS are collected excluding VAT
MIDSS are an ONS data source – hence there is control over the data source		
MIDSS are sampled from the Inter Department Business Register (IDBR), which has a higher quality of industrial classification		
Data is available after 5 weeks		
MIDSS covers all businesses classified to an SIC (i.e. non-VAT registered)		

⁶ See [IoS Methodology](#) for more details on quality adjustments

Annex 3

Comparison of new and old methods

Group/ Class	Industry Description	Current Output Indicator	Current Deflators	Proposed Output Indicator	Proposed Deflators	GVA weight per 1000	IoS weight per 1000
6310	Cargo handling and storage	MIDSS: Deflated gross turnover (£million)	HE Miscellaneous transport deflator	As current	CSPI for Road Freight	3.0	4.3
6321	Other supporting land transport activities	MIDSS: Deflated gross turnover (£million)	HE Miscellaneous transport deflator	As current	DTI Labour and supervision in civil engineering index and RPI for car parks	2.2	3.1
6322	Other supporting water transport activities	BoP: 1.Volume of exports BoP: 2.Volume of imports Annual benchmark series for 1 and 2 (DfT) a.Bulk fuel traffic at major UK ports (thousand tonnes) b.All other traffic at major UK ports (thousand tonnes) c.Ship arrivals at UK ports (number) DfT: 3.Interpolated from annual series for volume of freight moved on UK waterways (tonne-km)	N/A	MIDSS: Deflated gross turnover (£million)	CSPI for freight forwarding	1.2	1.8
6323	Other supporting air transport activities	CAA: Index of airport services (2001=100)		As current		3.8	5.4
6330	Activities of travel agencies and tour operators; tourist assistance activities n.e.c.	MIDSS: Deflated gross turnover	HE Miscellaneous transport deflator	MIDSS: Deflated gross commission	RPI for UK and foreign holidays	0.8	1.2
				MIDSS: Deflated gross turnover	RPI for UK and foreign holidays	3.6	5.1
CAA – Civil Aviation Authority, HE – Household Expenditure, MIDSS – Monthly Inquiry of the Distributive and Service Sectors, RPI – Retail Price Index, CSPI – Corporate Services Price Indices, DTI – Department of Trade and Industry, DfT – Department for Transport							

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