

Methodology of the Monthly Index of Services

Renting of Machinery and Equipment without Operator 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 Renting of Machinery and Equipment without Operator Industry Review (henceforth known as the Renting Industry Review).

Summary

The Renting Industry Review has recommended:

- the indicator for the renting of automobiles to be replaced by one based on turnover data from MIDSS (Monthly Inquiry into the Distribution and Services Sector)
- change the deflator for 7120, Renting of Other Transport Equipment, from the PPI for Goods Vehicles to the PPI for Other Transport Equipment
- change the deflator for 7140, Renting of Personal and Household Goods not elsewhere classified, from the hire of consumer goods, to the RPI for Video Hire (DVD Rental)

Although the methodology will be changed all the way back to 1994 in the system, only the open period from 2005 will be revised.

How important is the renting industry?

In terms of gross value added (GVA) weights in 2003, renting (SIC¹ Division 71) represents:

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

Renting is 4.4% of Section K – Real Estate, Renting and Business Activities.

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

Methodology

Previous methodology²

Within Division 71 there are seven four digit SICs. Below are the details of the groups as well as the methodology.

Table 1

Group	Industry Description	Output Indicator	Source	Current Deflator	GVA weight per 1000	Weight within division
7110	Renting of automobiles	Self drive car hire CVM	EFS/HE	Deflated at source using COICOP Index of Self Drive Car Hire	3.642	33.9%
7120	Renting of other transport equipment	Deflated gross turnover	MIDSS	PPI: Goods Vehicles	1.732	16.1%
7131 7134	Renting of agricultural machinery and equipment and renting of other machinery and equipment n.e.c.	Deflated gross turnover	MIDSS	PPI Mechanical Engineering Industries	1.794	16.7%
7132	Renting of construction and civil engineering machinery and equipment	Deflated gross turnover	MIDSS	SPPI: Construction Plant Hire	2.373	22.0%
7133	Renting of office machinery and equipment including computers	Deflated gross turnover	MIDSS	PPI: Manufacture of Office Equipment	0.255	2.4%
7140	Renting of personal and household goods nec	Deflated gross turnover	MIDSS	HE deflator: hire of consumer goods	0.949	8.8%

Reasons for review

The main reasons for reviewing the renting industry were as follows:

- Previous method for measuring automobile rental did not capture business to business – this accounts for more than half of the market
- Coverage and quality of the data from the EFS (Expenditure and Food Survey) – it is based on a small sample
- Quality of the deflator for automobile rental – it does not cover all of the output. Light vans and business rental are not included

² In this report, the previous methodology refers to the methodology used prior to Blue Book 2007, and the new methodology to the methodology taken on at Blue Book 2007

- The deflator for renting of other transport equipment did not capture the underlying products properly
- The deflator for renting of office machinery and equipment did not include the renting of computers
- The deflator for renting of personal and household goods does not capture DVD and other movie rental which account for most of the market.

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 (denoted as A methods), what methods are acceptable (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 handbook gives limited guidance in this industry. An A method for these services would be to collect actual rental prices. For services supplied according to a contract it is necessary to control for changes in quality over time. Furthermore, since the services can be unique, from client to client, close contact with the different enterprises in the industry is needed. It should be noted that changes in the quality of the item rented *and* of the rental service itself should be reflected in any measurement of volume. For unique services, the use of model prices satisfying the criteria specified in section 2.5 of the Price and Volume Handbook would also be an A method. Regarding services supplied only to households, CPI information will often be available, and in that case making use of a CPI, adjusted to basic prices, will be an A method for deflating output. In the cases where services are supplied to both businesses and private households, use of a CPI to deflate output will be a B method since it only covers the consumer market. If no observable price of the rental service exists the price index of the actual product can be considered a B method: on the assumption that there is a correlation between changes in the price of the item and changes in the rental price of the item.

Issues faced by the industry review

Due to the unique nature of each group within this division, each group will be looked at individually, rather than generalising by issue. Therefore, each section will review key features, issues and recommendations.

71.10 – Renting of automobiles

Key features

This group includes renting and operating leasing of self-drive private cars and light vans up to 3.5 tons. Financial leasing is excluded.

The market is comprised of business and private customers. Private customers almost always rent on a short term basis. Business customers are likely to rent on a long term basis and may enter into agreements with fleet specialists.

Issues

- Business-to-business car hire is not captured. It accounts for more than half of the market
- Spending by visitors to the UK on automobile hire is assumed to be a fixed percentage of total spending by visitors
- Coverage and quality of the data from the EFS survey – the sub-sample of the EFS that rents cars is relatively small leading to estimates with high standard errors
- The deflator does not cover all of the output. Light vans and business rental are not included

There is an RPI for car rental and an RPI for van rental. These have been weighted together using a 50/50 split.

Recommendations

1. Use MIDSS data as an indicator - deflated by an index derived as the mean of the RPI for Self Drive Car Hire and the RPI for Self Drive Van Hire.

71.20 – Renting of other transport equipment

Key Features

This class includes renting and operating of other transport equipment, including motorcycle hire, commercial vehicle contract hire, boat hire for passengers (without crew), air passenger transport equipment rental without operator and aircraft hire for freight without crew.

These services are almost exclusively directed towards businesses and a renting contract is in many cases unique for the company in question and of a one-off character which makes ordinary price comparison over time difficult.

Issue

- The current deflator does not capture the underlying products properly

The current deflator is the PPI (Producer Price Index) for goods vehicles. The proposed PPI for other transport captures the underlying products and is more appropriate to the industry.

Recommendation

2. To change the deflator to the PPI for Other Transport Equipment.

71.31/71.34 – Renting of agricultural machinery and equipment/Renting of other machinery and equipment

Key features

This class includes renting and operating leasing of agricultural and forestry machinery and equipment/renting and operating leasing of other machinery such as engines, turbines, machine tools, mining and oil field equipment and other scientific equipment.

These services are almost exclusively directed towards businesses and a renting contract is in many cases unique for the company in question and of a one-off character which makes ordinary price comparison over time difficult.

Recommendation:

3. No change. The review has shown that 71.31 is only 3% of the composite group, hence the current methodology receives a B rating under Eurostat guidance.

71.32 – Renting of construction and civil engineering machinery and equipment

Key features

This class includes renting and operational leasing of construction and civil engineering machinery, e.g. scaffolding, work platforms. These services are almost exclusively directed towards businesses.

Recommendation

4. No change. Current methodology receives a B rating under Eurostat guidance.

71.33 – Renting of office machinery and equipment including computers

Key features

This class includes renting of office machinery including computers, copiers, typewriters and accounting equipment. The market is business to business renting.

Issue

- The deflator does not include computers

The large companies in this industry rent exclusively to businesses but do not tend to rent computers. Renting of computers is a service that tends to be offered, but it is relatively small and is offered by the retailers and manufactures.

Recommendation

5. No change. Current methodology receives a B rating under Eurostat guidance.

71.40 – Renting of personal and household goods not elsewhere classified

Key Features

This class includes renting of personal and household goods. It covers everything from book rental, flower rental to DVD rental. These services are almost exclusively supplied to households and are often standard services, which makes ordinary price collection possible.

Issues

- The previous method was MIDSS turnover data deflated by the HE deflator for the hire of consumer goods, this was an inappropriate deflator as the market in renting video equipment is close to disappearing
- The majority of activity in this industry is the renting of movies

Following a review of the MIDSS sample, the majority of the industry is involved renting movies. The review recommended that the RPI for video hire (DVD rental) was the most appropriate as it captures the underlying products of the sample.

Recommendations

6. Change the deflator from hire of consumer goods to RPI for Video Hire (DVD Rental). This is then a B method.

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.

New methodology

- Change to MIDSS as an indicator for the renting of automobiles
- Renting of automobiles should be deflated by an index derived as the mean of the RPI for Self Drive Car Hire and the RPI for Self Drive Van Hire
- Change the deflator for 71.20 - Renting of Other Transport Equipment, from the PPI for Goods Vehicles to the PPI for Other Transport Equipment
- Change the deflator for 71.40 – Renting of Personal and Household Goods not elsewhere classified, from the hire of consumer goods to the RPI for Video Hire (DVD Rental)

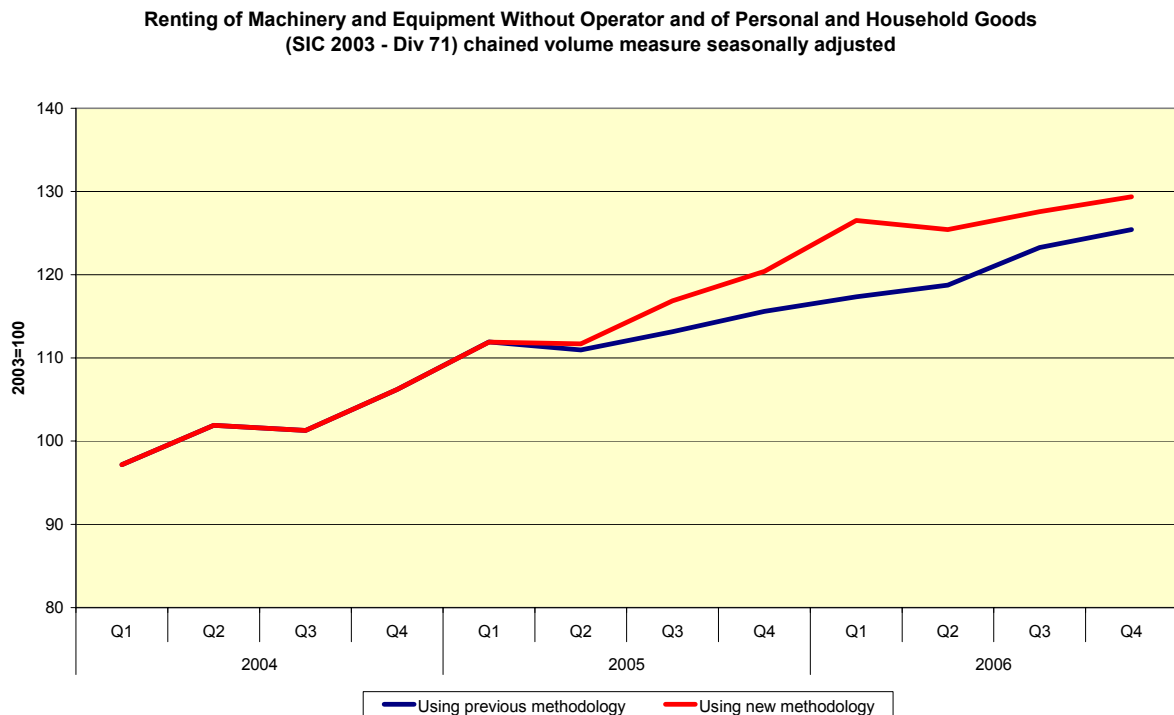
Under the previous methodology, four fifths of the division (by GVA weight) did not meet Eurostat standards of acceptability. The recommendations of this review makes the whole division based on acceptable Eurostat methods.

Benefits and issues of new methodology

Benefits		Assumptions
Car rental now covers business to business activity	V	That the cost of goods moves in the same way as the rental price for those goods
Car rental now measured using a data source consistent with the majority of IoS		
Improved deflation		

Impact of new methodology

The graph below shows the impact of the new methodology on Division 71.



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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