Water transport industry review, 2016

Summary report

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This publication

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Table of contents

1   Introduction

In the UK, the output approach to measuring gross domestic product (GDP(O)) is based on a comprehensive and wide-ranging suite of short-term indicators that are used to compile the Index of Services, Index of Production, Retail Sales Index and Output in the Construction Industry. As part of the Office for National Statistics (ONS) commitment to continuous improvement a programme of industry reviews commenced in December 2012 to review the concepts, methods and data sources underpinning the short-term indicators to ensure that they remain fit for purpose. It also demonstrates our commitment to quality assure outputs as part of the Code of Practice for Official Statistics. This programme of reviews mirrors the similar work conducted between 2002 and 2009, during which time the Index of Services achieved National Statistics status, in April 2007, due at least in part to the existence and impact of the industry review programme.

The reviews are conducted broadly at divisional level, of the UK Standard Industrial Classification 2007 (UK SIC (2007)) and will cover the whole economy with a provisional completion date of 2021. The reviews had been prioritised using a priority matrix designed by ONS which is described in section 4.1 of the GDP Output Improvement Report – 2014 and updated each year. However, the matrix is becoming less useful in informing reviews and, increasingly, emerging issues are informing where our resource must be focused.

Through using the priority matrix the Water transport industry review commenced in April 2014. At the time of the GDP Output Improvement Report – 2014 it was ranked 49th out of 89 industries. In addition to the ranking of the industry the Eurostat quality ratings were B – acceptable for water transport. Water transport was selected for review as it was the only experimental industry in the transport sector.

For a more detailed overview of the water transport industry review (2016), please see the full report which is also available on our website.

2   Summary

The main messages from the water transport industry review are:

- sea and coastal freight, and inland waterborne transport methods are considered conceptually appropriate
- improvements are recommended to the timeliness and periodicity of freight transport by ferries
- new data source is recommended for estimating passengers by ferries to improve the timeliness and periodicity of the data

Below are the recommendations from the water transport industry review:

Recommendations which we aim to implement at Blue Book 2016:

- Recommendation 1: At Blue Book 2016 replace current data source from the Chamber of Shipping with 2 series from the Department for Transport (DfT), 'short sea' passenger routes on a monthly basis, and 'long sea' and cruise passengers' with a monthly breakdown updated annually.

- Recommendation 3: At Blue Book 2016 move to using the more timely quarterly series for freight transported by ferries.

Recommendation which we aim to implement at Blue Book 2017:

- Recommendation 2: At Blue Book 2017 we aim to include new data from DfT on inter-island, other domestic and river ferries passengers. Introduce aggregation weights for international and domestic passenger split based on expenditure.

3   Industry overview

The water transport industry covers all activities under UK SIC 2007 division 50. This division includes the transport of passengers or freight over water, whether scheduled or not. Also included is the operation of towing or pushing boats, excursion, cruise or sightseeing boats, ferries, water taxis etc. Although location is an indicator for the separation between sea and inland water transport, the deciding factor is the type of vessel used. Transport on sea-going vessels is classified in groups 50.1 and 50.2, while transport using other vessels is classified in groups 50.3 and 50.4.

As at Blue Book 2015, water transport contributed 0.4% to the total UK economy and 0.5% to the services industries.

The lowest published level of data within the IoS publication and the GDP estimates (preliminary estimate, second estimate and the quarterly national accounts) is at division 50.

4   Blue Book 2015 methodology

This section outlines the methodology used to measure short-term output in water transport for the output approach to measuring GDP. The data sources, methods and concepts described in this section relate to those used for Blue Book 2015; prior to the completion of this industry review. Table 1 shows a summary of the Blue Book 2015 methodology for GDP(O) for division 50.

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Table 1: Summary of Blue Book 2015 GDP(O) methodology for division 50

Industry code	Industry description	Current Price source	Volume source	Deflator source	Low level industry weight (parts per thousand (ppt)) GDP =1000	Component percentage of division 50 (%)
50.11	Passenger Transport by Ferries	Trade in Services	Derived**	CPI	0.6555	16.3361
50.12	Freight Transport by Ferries	Derived**	Department for Transport	SPPI	0.9433	23.5080
50.21	Tankers	Trade in Services	Derived**	SPPI	0.5418	13.5009
50.22	Dry Cargo	Trade in Services	Derived**	SPPI	1.6564	41.2795
50.23	Inter-port & One-Port	Derived**	Department for Transport	SPPI	0.1108	2.7620
50.3-4	Inland Water Transport	Derived**	Department for Transport	SPPI	0.1049	2.6135

Note: Blue Book 2015 GVA weights are shown as the basis for the calculations in the weights columns.

**A 'derived' measure can be calculated using the ratio or product of 2 indices example:

- dividing a current price index by a price index (to create a volume index)
- dividing a current price index by a volume index (to create an implied deflator)
- multiplying a volume index by a price index (to create a derived current price measure)

50.11 Passenger transport by ferries - data for passenger transport by ferries are collected via a survey run by the Chamber of Shipping (CoS) on behalf of the Office for National Statistics (ONS). All CoS data used to estimate this industry are delivered to our Trade in Services branch, where weighting factors are applied. The surveys include questions on passage money and other passenger receipts.

50.12 Freight transport by ferries – data for freight transport by ferries are collected from the Department for Transport (DfT) website. The data series used is a volume measure of the number of road goods vehicles travelling to mainland Europe, for the UK only. The data covers powered vehicles registered in the UK.

50.21 Tankers – data for tankers are collected via a Chamber of Shipping survey on a quarterly basis. The data are measured by time charter receipts of UK trade, imports and exports of wet cargo, and cross trades, where UK registered ships engage in trade between 2 or more non-UK countries, thus neither importing nor exporting yet generating revenue for the UK.

50.22 Dry cargo – data for dry cargo are collected via the Chamber of Shipping survey on a quarterly basis. The data are measured by charter receipts of UK trade, imports and exports of dry cargo and cross trades, where UK registered ships engage in trade between 2 or more non-UK countries, thus neither importing nor exporting yet generating revenue for UK. Dry cargo includes freight transport by container ships and dry cargo hulls.

50.23 Inter-port and One-port – data for inter-port and one-port are collected direct from the DfT website. The data collected are goods moved – coastwise traffic between UK ports and one-port traffic of UK ports. The data series used are volume measures of freight transport between UK ports, and between UK ports and UK offshore platforms.

50.3-4 Inland water transport – data for inland water transport are collected direct from the DfT website. The data collected are goods moved – UK inland waters traffic, non-seagoing traffic – internal and are volume measures of the freight transported on the UK internal waterways such as canals and rivers.

Prices used for deflation – the current price and volume series collected for the water transport industry are deflated using a combine deflator made up of 2 Service Producer Price Indices (SPPI) series and 1 Consumer Prices Index (CPI) series both produced by ONS.

The SPPI is a statutory quarterly survey which measures changes in the price received for selected services provided by UK businesses to other UK businesses and government. The 2 series used are:

> SPPI – 50.11 – Commercial vehicle ferries

> SPPI – 50.20 – Sea and coastal water freight

The CPI is a statutory monthly survey which measures the change in price received for selected goods and services provided by UK businesses to consumers. The series used is:

> CPI – 07.3.4 Passenger transport by sea and inland waterway

5   Issues identified during the industry review

As part of the industry review, various areas were investigated in order to ascertain whether the existing methodology is sufficient and meets the internationally recognised guidance. This section will discuss and address the following issues:

- periodicity of the data and the timeliness of the delivery of the data for passenger transport

- periodicity of the data and the timeliness of the delivery of the data for freight transport by ferries

5.1   Periodicity of the data and the timeliness of the delivery of the data for passenger transport

The source data used at Blue Book 2015 were either produced on a quarterly or annual basis, with quarterly data accounting for 71% and annual accounting for 29% of the volume and current price series.

The main area of this review was to investigate the possibility of improving the timeliness of data used to estimate the industry. The review looked at improving the timeliness of the current data sources and explored the potential use of alternative data sources.

Passenger transport by ferries – SIC (2007) 50.11

The current data source collected by Chamber of Shipping on ONS's behalf is only available on a quarterly basis and no further improvements could be identified to the timeliness of this survey. However, the Department for Transport (DfT) produces a monthly volume indicator on the number of passengers travelling on international 'short sea' routes.

The international and domestic split based on passenger numbers is 35% and 65% respectively in 2014. However, it is more useful to look at the international and domestic split for expenditure which is approximately 87% and 13% respectively for 2014. The expenditure gives a better indication of the value of both the international and domestic passenger transport sectors. With this in mind the review has identified a new data source for the estimation of passengers travelling internationally by ferries; which accounts for approximately 92% of international passengers and 35% of international expenditure in 2014.

This data will be supplemented with a monthly breakdown on 'long sea' passenger route and cruise passengers which is available once a year from DfT.

Furthermore the data will be supplemented annually with passenger numbers on domestic routes which will account for the remaining 13% passenger expenditure and 65% of passengers.

More detailed information on the methodology, strengths and weakness of the new data source for international and domestic passengers can be found in the section 8.1.2 of the full report.

> Recommendation 1: At Blue Book 2016 aim to replace current data source from the Chamber of Shipping with 3 series from the DfT, 'short sea' passenger routes on a monthly basis, and monthly 'long sea' and monthly cruise passengers available annually.

> Recommendation 2: At Blue Book 2017 aim to include new data from DfT on inter-island, other domestic and river ferries passengers. Introduce aggregation weights for international and domestic passenger split based on expenditure.

5.2 Periodicity of the data and the timeliness of the delivery of the data for freight transport by ferries

The review confirmed that improvements to the transport of freight by ferries series could be made. Since the previous review of the industry in 2005, the DfT have produced a more timely series to measure this type of transport. Under the Blue Book 2015 methodology an annual series was being used, however, DfT now publish the same series on a quarterly basis. The review also considered the methods being use in collecting this data and confirms that the series is conceptually appropriate.

> Recommendation 3: At Blue Book 2016 aim to move to using the more timely quarterly series for freight transported by ferries.

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6   Blue Book 2016 and 2017 methodology

This section outlines the methodology to be used to measure short-term output in water transport for the output approach to measuring GDP.

6.1 Blue Book 2016 and 2017 data sources

Following this review, the data sources, methods and concepts that we will aim to implement for measuring water transport output for GDP(O) as at Blue Book 2016 are shown in Table 2 and for Blue Book 2017 are shown in Table 3.

Table 2: Summary of the methodology aimed for implementation for Blue Book 2016

Industry code	Industry description	Current price source	Volume source	Deflator source
50.111	International Passenger Transport by Ferries[1]	Derived[1]**	Department for Transport[1]	CPI
50.12	Freight Transport by Ferries[2]	Derived**	Department for Transport	SPPI
50.21	Tankers	Trade in Services	Derived**	SPPI
50.22	Dry Cargo	Trade in Services	Derived**	SPPI
50.23	Inter-port & One-Port	Derived**	Department for Transport	SPPI
50.3-4	Inland Water Transport	Derived**	Department for Transport	SPPI

[1] denotes a significant change in the methodology of the indicator aimed to be implemented in Blue Book 2016 compared Blue Book 2015.

[2] denotes a change in the periodicity of data source as at Blue Book 2016 from Blue Book 2015.

**A 'derived' measure can be calculated using the ratio or product of 2 indices that is:

- dividing a current price index by a price index (to create a volume index)
- dividing a current price index by a volume index (to create an implied deflator)
- multiplying a volume index by a price index (to create a derived current price measure)

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Table 3: Summary of the methodology aimed for implementation for Blue Book 2017

Industry code	Industry description	Current price source	Volume source	Deflator source
50.111	International Passenger Transport by Ferries	Derived**	Department for Transport	CPI
50.112	Domestic Passenger Transport by Ferries[1]	Derived[1]**	Department for Transport[1]	CPI
50.12	Freight Transport by Ferries	Derived**	Department for Transport	SPPI
50.21	Tankers	Trade in Services	Derived**	SPPI
50.22	Dry Cargo	Trade in Services	Derived**	SPPI
50.23	Inter-port & One-port	Derived**	Department for Transport	SPPI
50.3-4	Inland Water Transport	Derived**	Department for Transport	SPPI

[1] denotes a significant change in the methodology of the indicator aimed to be implemented in Blue Book 2017 compared to Blue Book 2016.

**A 'derived' measure can be calculated using the ratio or product of 2 indices that is:

- dividing a current price index by a price index (to create a volume index)
- dividing a current price index by a volume index (to create an implied deflator)
- multiplying a volume index by a price index (to create a derived current price measure)

6.2 Blue Book 2016 industry quality rating

The Office for National Statistics (ONS) uses the most appropriate and comprehensive international guidance to judge the conceptual quality underpinning estimates of short-term growth. In this context the most important guidance is that contained in the Eurostat Handbook on prices and volumes measures in national accounts (2016), and provides guidelines on the suitability of methods. The handbook is based upon the Classification of Products by Activity (CPA) 2008 which broadly relates to UK Standard Industrial Classification of Economic Activities 2007.

Prior to the industry review process, the conceptual quality of the short-term measurement of water transport output was assessed according to the principles outlined in the Eurostat 'Handbook on price and volume measures in national accounts'. It should be noted that the assessments made in this report are made by our experts rather than Eurostat.

Following the review the quality ratings themselves have not changed as improvements to the timeliness of data is not considered as part of the ratings.

Table 4: Comparison of Eurostat quality rating between Blue Book 2015 and Blue Book 2016

Industry code	Industry description	Blue Book 2015 Eurostat rating	Blue Book 2016 Eurostat rating
50.11	Passenger transport services by ferries	B	B
50.12	Freight transport services by ferries	A	A
50.2	Sea and costal freight water transport services	A	A
50.3-4.1	Inland water transport services – commercial vehicles ferries	A	A

7   User engagement

Throughout the water transport industry review process, consultations have taken place with a range of internal and external stakeholders. These consultations provided an opportunity to contribute to the continued improvement of the methods and sources used in the measurement of water transport output, within GDP(O).

External bodies which have been included in consultation discussions have been; HM Treasury, Bank of England, Office for Budgetary Responsibility, and Department for Transport.

Wider public consultation was sought as part of our annual GDP Output Improvement Reports.

The industry review process has informed the Short Term Output Indicator stakeholder group of progress. Final recommendations of the industry review were also passed by the GDP(O) Improvement project board, which is attended by senior managers within National Accounts.

For a full list of external meetings with external bodies as part of the consultation process for the water transport industry review please see Annex G of the full report.