

VOORBURG 2001

**SESSION 2: MINI PRESENTATIONS ON
PRODUCER PRICE INDICES**

**CHALLENGES IN THE DEVELOPMENT OF A PRICE INDEX FOR
ROAD FREIGHT SERVICES IN THE UK**

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THE DEVELOPMENT OF A PRICE INDEX FOR ROAD FREIGHT SERVICES IN THE UK

Introduction

This paper outlines the development of a Corporate Services Price Index (CSPI) for road freight in the UK and points out some of the difficulties and challenges. It refers to its initial development and then raises some issues regarding its future improvement.

The story so far

A CSPI for road freight in the UK has been in existence for 5 years and is published quarterly by the ONS as an “experimental” statistic. It is regarded as one of the more robust and better established CSPIs. It is currently going through a quality assurance process that has raised a number of minor issues which, once addressed, should enhance the overall quality of the index. It is also the intention that these enhancements will lead to publication of road freight indices at a lower level of detail (currently only the industry-level CSPI is published for road freight).

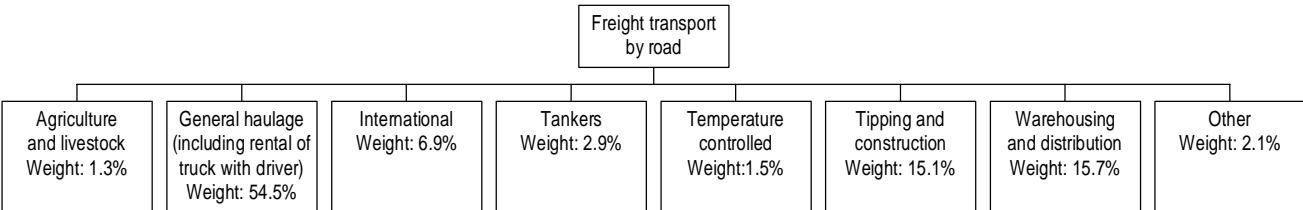
The industry targeted

Our attention is on industry 60.24/9 of the UK’s Standard Industrial Classification which relates to freight transport by road (excluding furniture removal activities). It also refers to section 6423 of the CPC which is “Road transport services of freight”.

Identification of product groups/road freight services

Following consultation with industry representatives and the relevant trade association, the following “family tree” was drawn up as a framework for collecting prices (the diagram also shows the weightings of each component – these are described later in this paper):

“Family tree” for road freight CSPI



One of the difficulties associated with this was how to decide the basis for classifying the product groups. Should it be determined according to:

- the type of cargo;
- the kind of vehicle;
- the destination (such as domestic or international); or
- a combination of these ?

Also, the issue of whether or not to include related activities, such as warehousing and distribution services, also needs further consideration. Strictly speaking, the warehousing

and distribution activity should not be included in the family tree as it belongs to a different industrial classification and perhaps a separate CSPI. It is accepted, however, that single contracts integrating elements of transport, storage and distribution are increasingly common. Such operations may be performed by a business classified as a road haulier but sometimes companies have been unable to separately identify the road haulage element.

There is also the difficulty of identifying road freight services in relation to other services such as freight forwarding or companies providing a range of inter-modal freight transport. Freight forwarding (mostly freight transport arrangement services) is a separate industrial category although it can overlap with road freight (as it also can with sea, air and rail freight transport services).

Many large scale freight transport companies consider themselves as “logistics” companies engaged in every aspect of the movement of goods, undertaking a whole range of activities (primary and ancillary) across the haulage, storage and distribution industries. Such companies are less dependent on just haulage for income and often subcontract significant parts of its road transport activity to other operators. The practice of sub-contracting by the primary contractor is growing and we are now considering how such transactions should be covered in the basket of transactions for the UK’s CSPI. It is possible that we are already surveying those sub-contractors in our current sample.

Sampling

In accordance with the ONS’ preferred approach, the sample for the quarterly price inquiry was drawn from the UK’s Inter Departmental Business Register (IDBR) which provides details of the employment and turnover of companies within the targeted industrial classification (SIC 60.24/9).

This approach can be subject to some classification problems, for example one of the UK’s largest operators of road freight was classified as a distribution and warehousing company (SIC 63.1, CPC 672) because a significant portion of its turnover was derived from those services.

The sample was stratified according to turnover. Due to restrictions on the regular surveying of very small firms, any company of less than 15 employees was excluded from the sample. This may relate to a problem with the current sample, and one which may be increasing. In terms of numbers, the industry is dominated by the smaller operators, i.e. operators with a maximum of 5 vehicles and fewer than 20 employees, and less than 1% of these are included in the current sample. Together, they account for a significant proportion (more than a quarter) of the industry’s total turnover. There are far fewer large operators but they dominate the industry in terms of turnover and volume of business. The smaller operators tend to be more active in the “spot hire” market (one-off contracts) for general cargo commodities - an important element of the overall market and one which may not be adequately represented in the current sample.

The current sample consists of a panel of 79 contributors. This panel has been contributing price data for over 4 years. The following tables shows the current profile of the sample and how it relates approximately to the business population as a whole for this industry.

Sample profile for the road freight industry

Freight Transport by Road

1. By Turnover (turnover figures shown in £ thousands)

Sizeband By Turnover	Number of Contributors (universe)	Number of Contributors selected	% selected	Turnover (universe)	Turnover of selected companies	% selected	Employment (Universe)	Employment of selected companies	% selected
5,000+	421	42	10.0	10,098,662	2,940,726	29.1	135,176	47,064	34.8
2,000 - 4,999	875	21	2.4	2,661,883	70,774	2.7	29,418	1,066	3.6
1,000 - 1,999	1,308	13	1.0	1,803,176	18,402	1.0	22,023	356	1.6
100 - 999	12,260	3	0.0	3,718,464	2,309	0.1	59,448	47	0.1
0 - 99	19,673	-	-	1,059,131	-	-	28,112	-	-
TOTAL	34,537	79	0.2	19,341,316	3,032,211	15.7	274,177	48,533	17.7

2. By Employment

Sizeband By Employment	Number of Contributors (universe)	Number of Contributors selected	% selected	Turnover (universe)	Turnover of selected companies	% selected	Employment (Universe)	Employment of selected companies	% selected
200+	93	23	24.7	6,749,690	2,679,372	39.7	110,534	45,180	40.9
100 - 199	113	7	6.2	1,163,070	80,218	6.9	15,338	1,318	8.6
50 - 99	289	12	4.2	1,376,694	64,422	4.7	20,051	918	4.6
20 - 49	1,011	28	2.8	2,381,280	194,640	8.2	30,699	992	3.2
10-19	2,084	8	0.4	2,381,280	12,275	0.5	28,167	117	0.4
0-9	30,947	1	0.0	5,289,302	1,284	0.0	69,388	8	0.0
TOTAL	34,537	79	0.2	19,341,316	3,032,211	15.7	274,177	48,533	17.7

N.B. The universe figures shown above do not account for all road freight activity in the UK. This is because there are other companies outside the road freight industrial category which carry out road freight services as a secondary activity.

Obtaining weightings for the product groups

There has been no source of turnover or sales data from which relative weightings could be derived for each product group within the agreed family tree. Therefore when contributors were originally recruited into the quarterly prices survey information on their individual turnover in each category was obtained and a set of weights for 1995-96 was derived from the returned data. An example of the recruitment form is shown below:

Freight Transport by Road				
Price Quotations: Recruitment Form				
<i>Please provide prices for services or contracts that you expect to continue to provide into the future.</i>				
Market sector definition	Index number	Turnover of sector in 1995-96	Representative price quotation: specification of service	Current price £
THIS IS AN EXAMPLE OF WHAT WE REQUIRE ON THE FORM				
Agriculture and Livestock	460241	£78,000	38 tonne articulated vehicle. Carrying grain 50 miles from A to B.	£100
General Haulage (including rental of truck with driver)	460242	£500,000	17 tonne articulated vehicle. Carrying paper. 200 miles. From A to B.	£500
International	460243	£19,322	32 tonne rigid vehicle. Carrying Bottles from South Wales to Koln in Germany. 500 miles.	£800
Tankers	460244	£46,200	32 tonne articulated tanker. Carrying chemicals. Price per tonne.	£150
Temperature controlled transport	460245	-		
Tipping and construction	460246	£300,000	25 tonne tipper. From A to B. 70 miles. Carrying grit.	£90
Transport including Warehousing and Distribution	460247	£5,000	32 tonne articulated. From A to B. 50 pallets of grocery products stored for 2 weeks then transported	£400
Other	460248	-		

We are currently in the process of carrying out a survey of turnover by product group for all industries covered by the CSPI and this should produce a more reliable set of weights (for the year 2000). The sample size of the turnover inquiry for road freight is much bigger than that of the existing panel supplying prices. The panel would then be supplemented, and replaced where appropriate, using the respondents to the turnover inquiry.

In addition we are also looking at statistics collected by the Department of Transport on distances travelled and amounts carried out by road hauliers in the UK – which can be

broken down to some extent by the type of vehicle and load carried. These data may assist in validating the results of the turnover inquiry although are not detailed enough to be used instead.

Selection of transactions

This was carried out at recruitment, as shown in the example of the recruitment form shown above. Contributors are asked to provide a quote of an activity that they either carry out on a regular basis or something that is typical at that time. Problems can arise (as with all price indices) when the nature of the activity or service changes. Smaller road freight companies seem more likely to experience such changes and the transactions for which prices are quoted need to be kept under constant review. This does not represent great difficulty when the new activity is within the same branch of the family tree and, perhaps, is an argument for keeping the tree relatively simple.

Findings from the quality assurance process

Contributors were found to be generally content with the survey instrument and the vast majority said the price method was still relevant to their business. Of the 12 per cent that said it was not relevant, the reasons were mostly that they had changed the nature of their activity or have stopped providing the services originally selected for pricing. Most contributors felt that the family tree represented the services provided by the industry adequately although further consultation is required judging by feedback from other government departments and trade associations.

Other issues

Long-term haulage contracts often allow for fluctuations in prices charged within a set range to take account of increased costs. This is sometimes called “cap and collar” and sets upper and lower limits between which prices can move without re-negotiating the contract. Data compiled by UK’s Freight Transport Association (a trade association representing users of freight transport services) tends to treat such fluctuations separately so that they do not unduly influence movements in the main index. This will be considered for the CSPI.

Transactions involving the importation of goods should also be considered for inclusion in the price data collected by CSPI as this is an important activity for UK hauliers. Obtaining business for return trips from abroad helps to improve efficiency by maximising load capability and spreading the burden of constantly increasing operating costs. One obstacle to this is the need to meet the criteria of regularity and repeatability of the business in order to achieve comparable and consistent prices.

Some internet auction sites have been established where cargoes can be advertised and bids made for transportation. This method can cut out the middleman, such as a freight forwarder, and can be attractive to a spot market operator, but it has not yet taken off to any real degree. It is seen as a risky operation by both parties at present and there is a lack of trust from both the hauliers and the customers. There is significant growth in the use of the net for ordering and paying, however. The future implications of these new kinds of activities needs to be explored.