



**Statistics Netherlands**

Division Macro Economic Statistics and Dissemination

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### **SESSION 2: PRODUCER PRICE INDEX FOR SERVICES**

### **THE DUTCH PROVISIONAL PPI FOR COURIER SERVICES**

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## 1. Introduction

The Dutch PPI for road haulage was launched in 1994. Its scope was group 723 of NACE '70. Courier services were part of this group. Therefore, price indices of courier services were compiled as part of the PPI for road haulage. The PPI for road haulage is presently being reviewed. This includes switching to NACE '93 and Classification of Product by Activity (CPA) '93 of the EU, which classify courier services in the separate subclass 64122<sup>1</sup>. As a result, courier services are excluded from the PPI for road haulage and a separate courier services PPI is planned.

This paper describes the experiences with the compilation of price indices for courier services as part of the PPI for road haulage. A separate provisional price index for courier services is presented, which was extracted from the PPI for road haulage.

## 2. Industry output

### *Defining courier services*

Many people know intuitively what courier services are. Yet it is necessary to define courier services as to tell them apart from other services like road haulage and postal services. NACE '93 and the CPA describe the activity of couriers as collection, transport and delivery of information carriers, parcels and other small pieces with an emphasis on speed, trustworthiness (personal accompaniment) and door-to-door transport. This description is usually enough to distinguish courier services from road haulage. Furthermore, in accordance with NACE, delivery of groceries, pizzas etc. are excluded. Courier services can differ from postal services in the following characteristics: fast delivery, information for the client where the parcel is at any time, written proof of delivery, inclusion of handling customs formalities, and flexible (even negotiable) rates. Typically, postal services are standardised and routine, and courier services are customised and often unique. The liberalisation of the postal market might increasingly blur the distinction between postal and courier services. One major courier describes its services as the "regional, national and worldwide door-to-door transport on demand, of documents, parcels and freight with guaranteed delivery on a certain time and day."

### *Services for households are out of scope.*

The households expenditure on courier services is negligible and set to nought in the supply and use tables (SUT) in national accounts. Top level weights for PPI compilation are derived from the SUT and, reversely, national accounts is an important user of PPI's. Consequently, households are beyond the scope of the PPI.

### *Structure of the industry*

From a total of 3000+ companies, four companies have a combined market share of approximately three quarters of total turnover of the industry in 1999. The total number of companies has risen between 1997 and 2002 by approximately 50%. Turnover has also risen sharply, while the turnover of postal services has remained rather steady. In national accounts, 9% of courier services is recorded as imported; the other 91% is solely produced by companies classified as resident couriers.

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<sup>1</sup> The same is planned for armoured transport of valuables which was part of road haulage (NACE '70) and is part of investigation and security activities according to NACE '93.



### 3. Index methodology

Three types of price information are presently in use in the survey. The method that is easiest for the respondent uses **list prices** from printed brochures or Internet. **Fictitious prices** of typical services consist of price quotes for adequately described services as if for a potential customer. The last method uses **prices of real transactions** that are delivered during many survey periods (quarters) to a fixed client without changing the service characteristics. Table 1 gives examples of all three types. Each method is used for approximately a third of the price quotes.

**Table 1.** Examples of three item descriptions according to type of price information.

Type of price information	Example of item description
List price	Delivery of type 'Economy Express' of a parcel of a "volume weight" of 10 kg to the capital of a 'zone 4' country.
Fictitious price	Parcel of 10x50x50 cm, 10 kilograms, Rotterdam to London, 9:00 delivery next day.
Price of a real transaction	Medical equipment in a parcel, 21 kg, from Voorburg to Amsterdam, client number 104602.

The main price determining factors are the following:

- Weight and/or size
- Duration between pickup and delivery
- Destination (often according to a 'zone' classification for foreign destinations)
- Insurance
- Tracking
- Inclusion of customs formalities
- Inclusion of extra services, e.g. wrapping, sorting, payment and (extra) proof of receipt
- Bulk discounts

It is recommended to include all these factors explicitly in the item description, although respondents do not deem it necessary in practice. As the examples in table 1 show, a reference to a service type like 'Economy Express' specifies many factors. Similarly, the item description can be brief if it contains a reference to a specific client and/or periodic real transaction, like 'client number 104602'. This can be a disadvantage as this limits the compilers' insight into the content of the service. It should be noted that the survey contains items that include air transport.

The frequency of price collection is quarterly for most respondents. Still, the surveyed prices tend to change less than quarterly, irrespective of survey method. See also graph 1. Some list prices change even less than yearly. As the moment of price change is not fixed, e.g. not always and only in the first quarter, it is necessary to survey quarterly.

### 4. Weights

The PPI for couriers is calculated in the following three steps.

1. For all items, lowest level indices are calculated by dividing the price in the survey period by the price in the base period (when index = 100),
2. For each firm, the lowest level indices are averaged (unweighted) to one index per firm,
3. The PPI for all courier services is calculated as the weighted average of the averages of all the firms. The weights are based on turnover and the probability of inclusion in the sample.



## **5. Issues in maintaining constant quality**

As logistic and information processes behind the scenes improve over time, the producers' inputs are not fixed. On the other hand, the outputs do not change fundamentally. The aim of the courier services PPI is foremost to survey the price development of a constant output, irrespective of new production processes. For this aim, a nearly constant quality PPI is achieved with comparatively simple methods for treatment of quality change like overlap and splice-to-show-no-price change.

When specifications change, a quality correction is estimated. If this is not possible, a new product enters the index. This new product supplants the discontinued product preferably via the overlap method; otherwise mean imputation is used.

Some quality factors remain out of reach in the practice of PPI compilation. A change over time in reliability, handling of mistakes, percentage of on time deliveries, etc. can not be quantified for the PPI.

## **6. Price measurement challenges**

Besides the issue of quality developments mentioned in the previous paragraph, a number of challenges face the compilers.

- It can be hard in practice to distinguish courier services from postal services, transport of valuables, and road haulage. Some companies produce services on more than one of these areas, although they perceive their services as a continuum of products and do not work according to the strict demarcation drawn by Statistics Netherlands.
- The PPI aims to show meaningful quarterly price developments. It is unclear whether the present survey captures sub-annual changes well. See also graph 1.
- It is expected that better price measurements should be possible for bulk contracts<sup>2</sup>.
- A concern with the present survey is the quality of the price information. Respondents may give simple answers to the survey, e.g. "no price development", too easily. They may continue prices quotes for outdated services too long. Finally, they may take the calculation of fictitious prices not always seriously.

## **7. Future plans**

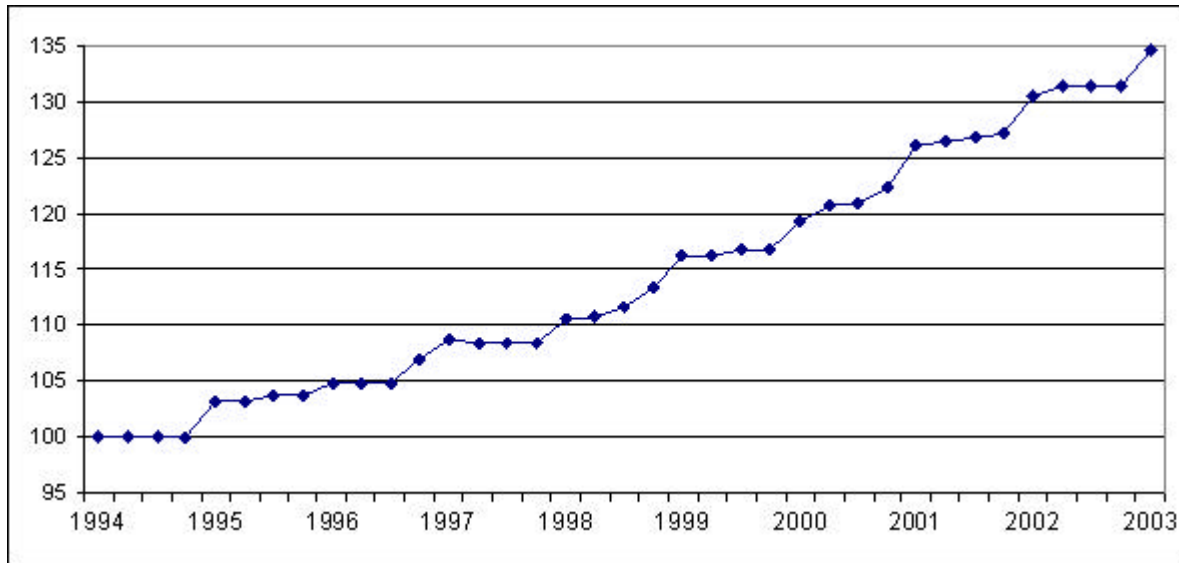
It is envisaged to compile and publish a separate courier services PPI. This PPI will be based on the present survey that is part of the PPI for road haulage. The survey panel has to be expanded to include new and grown companies. Separate indices for sub-markets like national and international destination might be calculated as part of a broader aggregation scheme. The weights need to be updated. Last but not least, the price measurement challenges mentioned in paragraph 6 will be addressed as much as possible.

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<sup>2</sup> The report of the Eurostat Task Force Price and Volume Measures for Post and Telecommunications states that to be a good deflator "[t]he price index should be based on real transaction prices and take account of volume discounts etc. List prices are only acceptable if they are effectively applied or if the discounts rates remain stable over time."



**Graph 1.** Provisional PPI for courier services from 1994 q1 until 2003 q1; 1994 q1=100.



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