

**VOORBURG GROUP ON STATISTICS**  
**Eleventh Meeting 1996**

**Session 2**

**PRODUCER PRICE INDICES FOR SERVICES: EXPERIENCE OF OECD COUNTRIES**

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## PRODUCER PRICE INDICES FOR SERVICES: EXPERIENCE OF OECD COUNTRIES

1. At the OECD Meeting of Service Statistics Experts on 27-29 March 1996, issues relating to producer prices for services -- defined as prices of services which are provided to enterprises and which form part of their intermediate consumption -- were discussed.

2. One of the conclusions was that it would be helpful for further work to collect basic information on producer price indices compiled by Member countries.

3. Hence, OECD Member countries' experts were requested to provide, for the service categories concerned, the following information:

- a) specification of services for which producer prices are compiled;
- b) types of prices observed;
- c) quality adjustments;
- d) frequency of pricing;
- e) the use of the data.

4. So far, information on producer prices for services actually compiled or in the process of being established were received from:

- United States;
- Japan;
- Germany;
- United Kingdom;
- Canada;
- Australia;
- Netherlands;
- Norway
- Sweden.

5. The submission received from these countries are presented in Annexes 1 to 9.

6. In view of the shortness of time available, no systematic analysis of the information is possible. A few general conclusions are offered in what follows.

7. The first is that the number of OECD Member countries that compile producer prices for services is limited. Some countries -- Austria, Finland, Spain and Switzerland -- replied that they do not compile producer prices for services; it can be assumed that this is also the case of most non-respondents.

8. The number of service categories for which producer prices are compiled is also limited for most countries. Most compiling countries focus on transportation and communications.

9. As regards the types of prices observed, there is a predominance of transaction prices, with list prices, model prices and hourly rates playing only a marginal part.

10. Quality adjustments are made for many service categories, but some of them are partial or limited.

11. The use made of producer price indices are various. Some countries use them mainly for deflation in the National Accounts, whilst others use them for constructing indices and for research purposes.

## ANNEX 1

## UNITED STATES

## Bureau of Labor Statistics Producer Price Indexes

SIC #	SPECIFICATION OF SERVICE	TYPE OF PRICE	QA'	FREQUENCY OF PRICING	USE OF DATA
4011	Railroad, Linehaul Operating	Transaction	No	Monthly	General
4212	Local Trucking Without Storage	Transaction and tariff	Yes	Monthly	Government agencies & companies in the industry
4213	Trucking, Except Local	Net transaction	No	Monthly	Researchers, government agencies, & companies in the industry
4214	Local Trucking With Storage	Transaction and tariff	Yes	Monthly	Government agencies companies
4215	Courier services, except by air	Net transaction	Yes	Monthly	General
4221	Farm Product Warehousing and Storage	Transaction	Yes	Monthly	General
4222	Refrigerated Warehousing and Storage	Transaction	Yes	Monthly	General
4225	General Warehousing and Storage	Transaction	Yes	Monthly	General
4311	US Postal Service	Transaction	No	Coincidental to rate changes	Consultants
4414	Deep Sea Foreign Transportation Of Freight	Tariff and service contract	No	Monthly	Government agencies
4424	Deep Sea Domestic Transportation Of Freight	Transaction and tariff	No	Monthly	Government agencies, industry for labor wage contract escalation
4432	Freight Transportation On The Great Lakes- St. Lawrence Seaway	Transaction	No	Monthly	General
4449	Water Transportation Of Freight, N.E.C.	Transaction	No	Monthly	Government agencies, industry for labor wage contract escalation
4491	Marine Cargo Handling	Transaction and tariff	Yes	Monthly	Government agencies
4492	Towing and Tugboat Services	Transaction and tariff	Yes	Monthly	Government agencies
4512	Air transportation, scheduled	Transaction, Average	Yes Yes	Monthly	General
4513	Air courier services	Transaction list w/all adjustments	Yes	Monthly	General
4522	Air Transportation, Non-scheduled	Transaction	No	Monthly	Companies in the industry

SIC #	SPECIFICATION OF SERVICE	TYPE OF PRICE	QA'	FREQUENCY OF PRICING	USE OF DATA
4581	Airports, flying fields, and airport terminal services	Net transaction Lagged	Yes Yes	Monthly	General
4612	Crude Petroleum Pipelines	Transaction	No	Monthly	General
4613	Refined Petroleum Pipelines	Transaction	NO	Monthly	General
4724	Travel Agencies	Net transaction	No	Monthly	Researchers, government agencies, and companies in the industry
4731	Arrangement of Transportation of Freight and Cargo	Net transaction	No	Monthly	Researchers, government agencies, and companies in the industry
4813	Telecommunications, except radiotelephone	Transaction Average revenue per minute	No No	Monthly	Public Utility Commissions for use in "rate caps regulation", communication consultant researchers
4832	Radio Broadcasting	Average Actual List	No No No	Monthly	Researchers
4841	Cable and other pay television services	Net transaction List Average Actual transaction price	Yes Yes No Yes	Monthly	Companies in the industry
6512	Operators and Lessors of Non-residential Buildings	Average per square foot	No	Monthly & quarterly	Property owners for escalating commercial property rents, commercial property tenants for negotiating leases, investors in real estate, including banks and insurance companies, and government agencies
6531	Real estate agents and managers	Estimated price Actual transaction Commission Gross Income Flat fee	No No No No No	Monthly & Quarterly	Companies in the industry
7011	Hotels and Motels	Transaction & Average	Yes Yes	Monthly	Researchers & companies in the industry
7311	Advertising agencies	Estimated net Net Transaction	Yes Yes	Monthly	General
7349	Building and Maintenance Services, N.E.C.	Transaction	yes	Monthly	General
7361	Employment Agencies	Commission  Flat fees Transaction Per hour	yes  Yes Yes Yes	Monthly	Government agencies and companies in the industry
7363	Help Supply Services	Transaction	Yes	Monthly	General
7513	Truck Rental & leasing, Without Drivers	Transaction & Average	No No	Monthly	Companies in the industry
7514	Passenger Car Rental, Without Drivers	Transaction	No	Monthly	Companies in the industry
8071	Medical Laboratories	Net reimbursement	Yes	Monthly	Insurance companies. Federal Reserve, researchers, Government agencies, Trade Association

SIC #	SPECIFICATION OF SERVICE	TYPE OF PRICE	QA'	FREQUENCY OF PRICING	USE OF DATA
8721	Accounting, auditing, and bookkeeping services	Estimated net (input specification)	No	Monthly	Researchers industry- related professionals
		Estimated net price (average)	No		
		Estimated list price (average)	No		
		Net transaction, actual shipment	No		

Service industries use estimated prices and average prices in order to minimize the need for explicit quality adjustment.

Division of industrial Prices and Price Indexes  
 Bureau of Labor Statistics  
 US Department of Labor  
 Washington, D.C  
 May 1996

## JAPAN

## The Contents of Corporate Service Price Index

Items	Detailed contents	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Finance and insurance					
Over the counter remittance	Charges for domestic counter remittance For a large transaction	Transaction price	Yes <sup>1</sup>	Any time	Economic indicator
Collection of finance bills	Charges for collection of finance bills	(ditto)	(ditto)	(ditto)	(ditto)
Direct debit	Charges for direct debit of public utilities, . charges and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Electronic banking with corporate customers	Charges for use of personal computer services and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Foreign exchange-related charges	Charges for cable orders	(ditto)	(ditto)	(ditto)	(ditto),
Stock transfer agency charges	Basic charges and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Voluntary automobile	A private small freight truck and other three kinds	Authorized charges	(ditto)	Basic annual	(ditto)
Compulsory automobile	(ditto)	(ditto)	(ditto)	(ditto)	(ditto)
Fire	Office building and other two kinds	The others <sup>2</sup>	(ditto)	(ditto)	(ditto)

<sup>1</sup> When there-happens the difference of quality between new and old items due to the change of items. it is coordinated and so forth.

<sup>2</sup> It's needed to make indicators reflecting the price change of insurance's objects on a premium rate.

Items	Detailed contents	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Marine and other transportation	Marine transportation for a foreign voyage freight (import) and other three kinds	(ditto)	(ditto)	Any time	(ditto)
Rent paid on real estate					
Offices	Rental charges for contracts of real estates for offices in main cities	Transaction price	Yes	Biennial or any time	Economic indicator
Stores	Rental charges for contracts of spaces for commerce in main cities	(ditto)	(ditto)	Biennial or monthly	(ditto)
Hotels	Rental charges for contracts of real estates for hotels in main cities	(ditto)	(ditto),	mostly biennial or triennial	(ditto)
Parking lots	Charges for monthly parking lots of enterprises renting offices in main cities	(ditto)	(ditto)	biennial or triennial	(ditto)
Transportation					
Railroad freight,	Container fares in main trunk lines and another kind	Transaction price	Yes.	Any time	Economic indicator
Special road freight	Truck fares with specific customers, routes and freights.	(ditto)	(ditto)	(ditto)	(ditto)
Ordinary road freight	Truck fares with specific customers, routes and freights	Transaction price	Yes.	Any time	Economic indicator
Liners	Spot fares and other two kinds.	(ditto)	(ditto)	(ditto)	(ditto)
Trampers	Fares for ocean liners of import freights	(ditto)	(ditto)	(ditto)	(ditto)
Ocean tankers	Spot fares and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Freighters	Fares with specific customers, sections and freights	(ditto)	(ditto)	Basically annual	(ditto)
Car ferries	Fares for Car ferries with specific customers And sea route per one truck	(ditto)	(ditto)	Any time	(ditto)
Domestic tankers	Fares with specific routes and types of tankers	(ditto)	(ditto)	Basically annual	(ditto)
Ship stevedoring	Charges for ship stevedoring with specific customers. ports and freights	(ditto)	(ditto)	Any time	(ditto)



Items	Detailed contents	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Coastal stevedoring	Charges for Coastal stevedoring with specific customers, ports and freights and other three kinds	(ditto)	(ditto)	(ditto)	(ditto)
International air freight	Charges for import freights with specific routes and freights	(ditto)	(ditto)	(ditto)	(ditto)
Domestic air freight	Charges for air freights of national main routes	(ditto)	(ditto)	(ditto)	(ditto)
Railroad fares	Fares for passengers	Authorized charges	(ditto)	Biennial or triennial	(ditto)
Buses	Normal fares for buses	(ditto)	(ditto)	(ditto)	(ditto)
Hire cars	Fares for hire cars with specific customers	Transaction price	(ditto)	Basically annual	(ditto)
Taxis	Fares for taxis	Authorized charges	(ditto)	Any time	(ditto)
International air fares	International air fares	(ditto)	(ditto)	Basically annual	(ditto)
Domestic air fares	Domestic air fares	(ditto)	(ditto)	Any time	(ditto)
Ordinary storage	Charges for custody and stevedoring with specific customers. addresses and dealing freights	Transaction price	(ditto)	(ditto)	(ditto)
Cold storage	(ditto)	(ditto)	(ditto)	(ditto)	(ditto)
Packing charges,	Charges for packing with specific customers. packed goods, measures and destinations measures and destinations	(ditto)	(ditto)	(ditto)	(ditto)
National expressways	Passage money for national expressways by kind of car	Authorized charges <sup>3</sup>	Yes.	Any time	Economic indicator
Ordinary toll roads	Passage money by road	(ditto)	(ditto)	(ditto)	(ditto)
Urban expressways	Passage money for urban expressways and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Information services					

<sup>3</sup> Based on authorized charges. charges needed for 45km running are mostly modeled.

Items	Detailed contents	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Software services	Charges for order-received software services	Wage per month	Yes.	Any time	Economic indicator
Data processing	Charges for using computers and other three kinds	Charges for using computers per hour, etc.	(ditto)	(ditto)	(ditto)
Data base services	Charges for using data base	List price	(ditto)	(ditto)	(ditto)
Market research	Panel surveys and other two kinds	Model charges	(ditto)	Basically annual	(ditto)
Communications					
Sealed letters	First class postage	Authorized charges	Yes.	Any time	Economic indicator
Postal card	Second class postage	(ditto)	(ditto)	(ditto)	(ditto)
Other postal services	Third class postage and other three kinds	(ditto)	(ditto)	(ditto)	(ditto)
Telephone charges	Charges for telephone calls and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Leased circuits	Charges for using leased circuits	(ditto)	(ditto)	(ditto)	(ditto)
Mobile and portable telephone charges	Charges for telephone calls and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Pocket beepers	Charges for using pocket beepers	(ditto)	(ditto)	(ditto)	(ditto)
Value-added networks	Charges for services of packet switching and another kind	Notification charges	(ditto)	(ditto)	(ditto)
International telephone charges	International telephone charges	Authorized charges	(ditto)	(ditto)	(ditto)
International leased circuits	Charges for using international leased circuits	(ditto)	(ditto)	(ditto)	(ditto)
International telex	International telex charges	(ditto)	(ditto)	(ditto)	(ditto)

Items	Detailed contents	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Advertising services					
TV commercials	Charges for spot electric waves	Transaction price and list price	Yes.,	Any time and annual	Economic Indicator
Radio commercials	(ditto)	(ditto)	(ditto)	Annual or biannual	(ditto)
Newspaper advertising	Charges for mediums running in newspapers	(ditto)	(ditto)	Mostly biannual	Economic indicator
Magazine advertising	Charges for mediums running in magazines	(ditto)	(ditto)	Any time	(ditto)
Direct mail	Charges by kind of works of direct mail	Transaction price	(ditto)	(ditto)	(ditto)
Fliers	Charges for newspaper fliers	Transaction price and list price	(ditto)	(ditto)	(ditto)
Advertising In traffic facilities	Charges for mediums advertising in traffic facilities	(ditto)	(ditto)	Basically biannual	(ditto)
Outdoor advertising	Charges for mediums of outdoor sign boards	Transaction price	(ditto)	Any time	(ditto)
Leasing and renting					
Electronic computers and related equipment leasing	Charges or rates <sup>4</sup> of charges for leasing of electronic computers and related equipment and another kind	Transaction price	Yes	Monthly	Economic indicator
Communications equipment leasing	Rates of charges for facsimiles and the another kind	(ditto)	(ditto)	(ditto)	(ditto)
Office equipment leasing	Rates of charges for wordprocessors and other two kinds	(ditto)	(ditto)	(ditto)	(ditto)
Industrial machinery leasing	Rates of charges for fibre machinery and other three kinds	(ditto)	(ditto)	(ditto)	(ditto)
Machine, tools leasing	Charges or rates of charges for machining centres and the other four kinds	(ditto)	(ditto)	(ditto)	(ditto)
Transportation equipment leasing	Charges or rates of charges for Passenger cars and another kind	(ditto)	(ditto)	(ditto)	(ditto)

<sup>4</sup> Charges is calculated by multiplying machine price in case of rates of charges. and so forth.

Items	Detailed contents	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Machinery and equipment for commercial establishments leasing	Charges or rates of charges for vending machines and other three kinds	(ditto)	(ditto)	(ditto)	(ditto)
Medical equipment leasing	Rate of charges for supersonic diagnosis devices and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Construction machinery leasing	Charges or rates of charges for oil pressure shovels	(ditto)	(ditto)	(ditto)	(ditto)
Electronic computer rental	Rental charges for electronic computers with specific models	List price	Yes.	Any time	Economic indicator
Construction machinery rental	Rental charges for new contacts of construction machines and other two kinds	Transaction price	(ditto)	(ditto)	(ditto)
Car rental	Rental charges with specific customers and kinds	(ditto)	(ditto)	(ditto)	(ditto)
Other renting	Rental charges for pot plants and other two kinds with specific customers	(ditto)	(ditto)	(ditto)	(ditto)
Other services					
Car maintenance	Charges for maintenance with specific customers and kind of cars and another.	Transaction price	Yes.	Basically annual	Economic indicator
Machinery maintenance	Charges for machinery maintenance with specific customers and other three kinds	A unit of personnel expenditure	(ditto)	(ditto)	(ditto)
Cleaning	Charges for cleaning of office buildings with specific customers	Transaction price	(ditto)	(ditto)	(ditto)
Facility management	Charges for facility management such as electricity and air-conditioning and other two kinds	(ditto)	(ditto)	(ditto)	(ditto)
Security	Charges for permanently stationed securities with specific customers and another kind	(ditto)	(ditto)	(ditto)	(ditto)
Hygiene services	Charges for extermination of rats with specific customers and other two kinds	(ditto)	(ditto)	(ditto)	(ditto)
Design and on-site supervision	Rewards for construction design and on-site supervision	Wage per month	(ditto)	Once some years	(ditto)
Measurement	Charges for ground measurement and another kind	Transaction price and model fares	(ditto)	Basically annual	(ditto)
Soil surveying	Charges for soil surveying and another kind	Model fares, etc.	(ditto)	(ditto)	(ditto)

Items	Detailed contents	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Legal services	Charges for lawyers and other two kinds	Transaction prices and model fares	(ditto)	Basically annual or any time	(ditto)
Accounting services	Charges for audit In certified public accountants' charges and another kind	(ditto)	(ditto)	Biennial or any time	(ditto)
Temporary worker services	Charges for an hour with specific customers and levels of skills	Transaction price	(ditto)	Basically annual	(ditto)
Industrial waste disposal	Charges for collection, transfer and dealing of industrial waste disposal with specific customers	Transaction price	Yes.	mostly annual	Economic indicator
Sewerage disposal	Charges paid for local governments for use of sewerage by enterprise	Model charges	(ditto)	Once three or five years	(ditto)

# ANNEX 3

## GERMANY

Specification of service	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
<b>Postal services<sup>1</sup></b>				
<b>Letter mail services</b> 47 variants differentiated by types of letters, format, weight, domestic and selected foreign destinations	transaction price <sup>2</sup>	in principle yes <sup>3</sup>	in the case of price change	construction of a price index of postal services; deflation in the National Accounts
<b>Freight services</b> 27 variants differentiated by types of parcels, weight, mode of transport, domestic and selected foreign destinations				
<b>Newspaper services</b> 7 variants differentiated by types of items, weight, frequency				
<b>Telecommunications services<sup>4</sup></b>				
<b>Telex services</b> basic charge for access 5 tariff zones (home and abroad)	transaction price	in principle yes	in the case of price change	construction of a price index of telecommunications services; deflation in the National Accounts

<sup>1</sup> For a more detailed listing see table 1 in the attached methodological description.

<sup>2</sup> We also try to consider discounts given to big customers.

<sup>3</sup> This answer is more a theoretical demand than a fact. In practice we ignore "incremental" quality changes, e.g. faster letter delivery, because it is too difficult to estimate a correction factor. See also the respective explanations on the index concept in the methodological description.

<sup>4</sup> For more detailed information see the attached methodological description.

Specification of service	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
<b>Telephone services</b> installation charge basic charge for access (standard and social tariff) telephone calls 90 variants <sup>5</sup> differentiated by call duration, day time, distance zones, home and abroad				
<b>Telecommunications services in the ISDN</b> installation charge basic charge for access telephone calls 7 variants differentiated by call duration, day time, distance zones, home and abroad				
<b>Mobile radio</b> mobile telephone services installation charge basic charge for access calls mobile radio services 2 types				
<b>Goods transport in ocean-shipping<sup>6</sup></b>				
<b>World-wide sea transport for Conference-bound liner trades from/to North Sea ports</b> 110 variants of trade relations and selected types of commodities	transaction price <sup>7</sup>	no	monthly	construction of an index of sea freight rates in liner trades; deflation in the National Accounts

<sup>5</sup> Due to the latest tariff reform of the Deutsche Telekom the number of priced items has to be extended significantly.

<sup>6</sup> For more detailed information see the attached methodological description.

<sup>7</sup> We are often confronted with the problem that enterprises tend to report the list price, especially if they do not have the requested case of transport in the reference month. Should we learn about this we ask for the model price.

## UNITED KINGDOM

Service Sector Price Index  
Indexes collected at April 1996

Index area	Specification of service	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Freight transport by road	Conveyance of specified cargoes to specified destinations	Mix of transaction prices, model prices and contract prices	Yes	Quarterly	Deflation in the National Accounts
Industrial cleaning	Cleaning of specified locations	Contract prices	Yes	Quarterly	Deflation in the National Accounts
Hire of buses and coaches (with driver)	Hire of vehicles for specified journey	Mix of transaction prices, model prices and contract prices	Yes,	Quarterly	Deflation in the National Accounts
Waste disposal	Disposal of waste of a specified kind and volume	Mix of transaction prices, model prices and contract prices	Yes	Quarterly	Deflation in the National Accounts
Adult education	Provision of educational courses of specified kinds	Transaction prices	Yes	Quarterly	Deflation in the National Accounts
Security services	Provision of security services of various kinds as specified	Mix of contract prices and hourly rates	Yes, but limited	Quarterly	Index on trial
Courier services	Transportation of packages of various sizes to specified destinations	Mix of contract prices, model prices and transaction prices	Yes	Quarterly	Index on trial
Sewerage services	Charges for collection and disposal of sewage or various specified strengths	List prices	No	Annual	Index on trial
Accountancy services	Rates for provision of accountancy and related services	Average hourly fee rates	No, but under investigation	Quarterly	Index on trial
Consulting engineering services	Rates for provision of various kinds of consulting engineering services	Average hourly fee rates	No, but under investigation	Quarterly	Index on trial



# Prices for Intermediate Services: The ONS Approach.

## 1. History

1.1 The service sector now accounts for around two-thirds of gross domestic product. It is widely recognised that - partly for historical reasons - less is known about the sector than about manufacturing industry. In order to help remedy this situation, the Office for National Statistics (ONS) has been engaged in a programme to improve the statistical coverage of the sector.

1.2 As part of this programme, the ONS has since 1991 prepared, but not published, price indices for five service industries. These are:

- road haulage
- contract cleaning
- waste disposal
- bus and coach hire
- private (non-school) educational services.

1.3 Collection has been carried out quarterly on a voluntary basis. The resultant price indices have been used to deflate turnover data, and thus provide a measure of real output for use in the calculation of GDP by output.

1.4 Price quotations are collected either for specific service activities (for example, the collection and disposal of a skip filled with a particular kind of waste) or for contracted services (for example, the provision of cleaning services to a specific office block). In the latter case, care must be taken to ensure that price movements are accurately captured at the time of contract change.

1.5 Contributors are asked to notify the ONS of any quality changes, and to estimate the impact of such changes on prices. The effects are then discounted.

1.6 Confidentiality of information supplied to the ONS is protected under the Statistics of Trade Act, 1947.

## 2. *Developments*

2.1 Early in 1995, Ministers gave their approval to plans for further improving the coverage of the prices charged for intermediate services (that is, services provided by one business to another).<sup>1</sup> Developments include:

- progressive expansion to cover the bulk of the services sector; putting the survey onto a statutory basis;
- eventual monthly collection, where needed for the deflation of turnover data obtained on a monthly basis.

2.2 Ultimate outputs of the new developments will be:

- a summary index of price movements for business services;
- a set of high-quality deflators covering individual service industries, and which contribute to improved estimates of GDP by output.

2.3 Priority will be given to those industries which are relatively important in the construction of GDP by output, and to those industries where the problems of measurement are less severe.

2.4 Data collection for the existing industries has recently been placed on a statutory basis. Collection has also recently started for five new industries. These are:

- accountancy
- consulting engineering
- courier services
- security services
- sewerage services.

2.5 From January 1996, therefore, prices data will be collected quarterly on ten service industries. In total, there will be around 500 contributors providing prices for around 1,500 service activities.

2.6 Research is also in progress on computer services, sea and coastal transport, and the hire of construction equipment.

## 3. *Issues*

3.1 Measuring prices for 'services raises a number of difficulties. In some service industries, two features cause particular problems. These are:

- the provision of one-off products (e.g. in consulting engineering);

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<sup>1</sup> Parallel developments are taking place within the RPI to improve the coverage of services provided to the consumption sector.

-- the intangibility of the output provided to customers (e.g. in management consultancy).

3.2 Where these features mean that actual prices are not available, the options include measuring changes in 'model prices' or in 'price determinants'.

3.3 Model prices are prices for fictional but typical services. Often they would be based on re-pricing previous jobs. Disadvantages include concerns over whether productivity growth would be reliably measured, and whether prices would realistically reflect prevailing market conditions. Compliance costs could also be very high. This means that in many cases it may be better to measure price determinants.

3.4 Measuring price determinants involves the separate identification of movements in:

- fees (or in wages plus mark-up) per period;
- productivity.

3.5 Measuring productivity change for services is a major challenge. We are confident that for a number of industries it will be possible to make progress. For instance, in Canada, civil engineers have taken part in a programme with the national statistical office to re-estimate the labour hours required to complete a set, of typical projects. This work has been judged a success.

3.6 One option is to combine the measurement of fees per period with a -smaller-scale and less frequent model-pricing or productivity measurement exercise.

3.7 The ONS intends to adopt a pragmatic approach for the more difficult industries. Data on fee rates will be collected at an early stage, with work on productivity and/or model prices following as developments allow.

# ANNEX 5

## CANADA

### Consulting Engineering (In production)

Specification of Service	Type of price observed	Quality adjustment	Frequency of pricing	Use of Data
<b>CANADA (1)</b>				
Total Engineering	Transaction	partial (2)	Annual	(3)
Buildings	Transaction	partial	Annual	"
Transportation	Transaction	partial	Annual	"
Municipal Services	Transaction	partial	Annual	"
Other Environment Services	Transaction	partial	Annual	"
Industrial Services	Transaction	partial	Annual	"
Mining, Metallurgy and Primary Metals	Transaction	partial	Annual	"
Pulp and Paper	Transaction	partial	Annual	"
Oil, Petroleum and Natural Gas	Transaction	partial	Annual	"
Power Generation and Transmission	Transaction	partial	Annual	"
Other Industrial Services	Transaction	partial	Annual	"
Other Engineering Services	Transaction	partial	Annual	"
Total Engineering Foreign Market	Transaction	partial	Annual	"
Total Engineering All Markets	Transaction	partial	Annual	"

- (1) The Consulting Engineering Price indexes for some types of services are also available for the Atlantic region, Quebec, Ontario, Manitoba-Saskatchewan, Alberta and British Columbia.

(2) Note: The quality adjustment is partial in the sense that a measure from the productivity of labour for industries that use consulting engineer services is utilised to factor out the impact on price indexes of changes in the number of labour hours charged to contracts. This measure is calculated at an aggregate level and is applied to total price indexes for all regions and fields of specialisation.

(3) The major use of these data for the time being are for:

- the deflation of National Accounts
- contract escalation
- proxy for other Service sectors
- competitiveness assessment

NOTE: Weighting structure is updated every second year

**Professional Computer Services**  
**(To be launched summer 1996)**

<b>Specification of Service</b>	<b>Type of price observed</b>	<b>Quality adjustment</b>	<b>Frequency of pricing</b>	<b>Use of Data</b>
<b>CANADA</b>				
<b>Total Computer Services</b>	Transaction	(1)	Annual	(2)
Packaged Software Products	Transaction	cc	cc	4C
Professional Services	Transaction	44	cc	94
Computer Processing Services	Transaction	cc	cc	cc
Computer Renting and Leasing	Transaction	cc	cc	C6
Repair and Maintenance	Transaction	cc	cc	cc

(1) To be determined

(2) The major use of these data will be for:

- the deflation of National Accounts
- contract escalation
- proxy for other service sectors

**NOTE:** Frequency for updating the weighting structure remains to be determined

**Telecommunication Services**  
**(Except Radio, TV, Mobile, Satellite Services)**  
**Design Stage**

Specification of Service	Type of price observed	Quality adjustment	Frequency of pricing	Use of Data
<b>CANADA</b>				
<b>Total Telecommunications</b>	Transaction	(1)	(2)	(3)
<b>Local and Access Services</b>	Transaction	cc	cc	C4
<b>Public Switched Toll Services</b>	Transaction	cc	cc	cc
<b>Private Line and Data Transfer</b>	Transaction			
<b>Other Telephone Services</b>	Transaction			

- (1) An attempt is made to price detailed types of transactions after discounts by customer by type of call in a base period and to keep the calling structure fixed through time to be able to reprice it in subsequent periods. This approach would eliminate the need for adjusting for quality change. The level of detail for publication purposes remains to be determined.
- (2) Frequency would be a mix between monthly pricing for the residential portion of this Service sector to be incorporated into the M program and possibly a quarterly or annual pricing frequency for the commercial side, depending on how quickly prices evolve through time.
- (3) The major use of these data would be for:
  - the deflation of National Accounts
  - contract escalation
  - proxy for other telecommunication sectors (mobile, satellite etc.)

**NOTE:** Research has recently been started in the area of Radio and Television in view of developing a price index for this sector. When operational, it will complement the telephone component of the telecommunication sector.

## ANNEX 6

## AUSTRALIA

## PRODUCER PRICE INDEXES - AUSTRALIA

Specification of service	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Residential real estate sales (service of agent in selling a property). Details of properties sold x sale price x commission earned x city.	Transaction price	Yes	Quarterly	1. National Accounts deflator 2. PPI construction
Residential real estate property management. Details of fee charged for property management x city.	Transaction price	Yes	Quarterly	"
Commercial real estate sales (services of agent in selling a property). No specifications priced -- index of changes in price of commercial property x city used as a proxy.	Price index	None	Quarterly	"
Commercial real estate property management. No specifications priced. An index of rents paid for commercial property x city used as a proxy.	Price index	None	Quarterly	"
Rail freight services. Fee for freighting specific products x specified journey x mode (i.e. bulk, container, etc.).	Transaction price	Yes	Various	"
Commercial property operators and developers (proposed index). Investigating: Existing price indexes produced by outside organisation	Price index	Yes	Monthly proposed. Quarterly is minimum acceptable.	"



<p>Motor vehicle hiring, leasing including trucks.</p> <p>1. Rate per day x category of vehicle x location x length of hire period.</p> <p>2. Lease charge x category of vehicle x type of lease x location x length of lease.</p>	Transaction prices	Yes	Monthly	"
<p>Road freight (development stage). Proposed -- Fees for designated transport services, e.g. type of freight x specific journeys x express/normal</p>	Transaction prices	Yes	Monthly proposed. Quarterly is minimum acceptable	"
<p>Air freight (development stage). Proposed -- Fees for designated air freight services, e.g. type of freight x specific journeys x express/normal</p>	Transaction prices	Yes	Monthly proposed	"
<p>Grain storage and handling (development stage) Proposed -- Fees for the service of storing and handling grain x type of grain x location</p>	Transaction prices	Yes	Monthly proposed	"

THE NETHERLANDS

STATISTICS NETHERLANDS

OVERVIEW OF PRODUCER PRICE INDICES FOR SERVICES IN THE NETHERLANDS (MAY 1996)

This overview only contains service PPIs currently under construction.

TYPE OF SERVICE AND SPECIFICATIONS

ROAD HAULAGE (ANACE 60.24)

1. NATIONAL

1. Open/closed
2. Container
3. Remover
4. Tipper
5. Freezer/cooler
6. Tanker
7. N.e.s.

2. INTERNATIONAL

Same specifications as national road haulage

Prices: Mainly renegotiated contract prices

Quality Adjustment: Yes

Frequency of price collection: Mainly quarterly

Purposes: Construction of an index, deflation

## ARCHITECTURAL AND ENGINEERING ACTIVITIES AND RELATED TECHNICAL CONSULTANCY (NACE 74.20)

1. Construction engineering
2. Urban development, traffic engineering and environmental . town and country planning
3. Civil engineering
4. Electrical engineering
5. Mechanical engineering
6. Process engineering
7. Other technical consultancy

Prices: Mainly quotation prices

Quality Adjustment: Yes

Frequency of price collection: Quarterly

Purposes: Construction of an index, deflation

## ACCOUNTING, BOOK-KEEPING AND AUDITING; TAX CONSULTANCY (NACE 74.12)

1. Accounting and auditing
2. Book-keeping
3. Tax consultancy
4. Administration services
5. Other

Prices: Mainly tariffs per hour

Quality Adjustment: Yes

Frequency of price collection: Quarterly

Purposes: Construction of an index, deflation

## RENTAL OF AUTOMOBILES (NACE 71.10) AND TRUCKS (PART OF NACE 71.21)

(The base year for catalogue values is 1990 = 100)

### RENTAL TARIFFS

#### A. Type of motor vehicles

1. Automobiles
  - 1.1 Automobiles (catalogue price < Dfl 28 500
  - 1.2 Automobiles (catalogue price Dfl 28 500 - 39 900)
  - 1.3 Automobiles (catalogue price Dfl 39 900 - 57 000)
  - 1.4 Automobiles (catalogue price Dfl 57 000)
2. Vans
3. Trucks

B. Location and type of customer

1. Schiphol
2. Elsewhere
  - 2.1 Consumers
  - 2.2 Businesses

Prices: Price list

Quality Adjustment: Yes

Frequency of price collection: Monthly

Purposes: Construction of an index, deflation

## LEASE TARIFFS

1. Automobiles
  - 1.1 Automobiles (catalogue price < Dfl 33 900)
  - 1.2 Automobiles (catalogue price Dfl 33 900 - 50 900)
  - 1.3 Automobiles (catalogue price Dfl 50 900)
2. Vans
3. Trucks

Prices: Quotation prices

Quality Adjustment: Yes

Frequency of price collection: Quarterly

Purposes: Construction of an index, deflation

## ANNEX 8

## NORWAY

Product No./Name	Kind of information	Frequency	Use of data
410090 Collected, and purified water, distribution services of water	Price for consumption of 175 cubic meter a year	Half-yearly	Deflation of intermediate consumption in the national accounts(NA).
502010 Maintenance and repair of motor vehicles and motor cycles	Lubrication of car, Volvo Replacement of car oil, VW Golf Price per hour at car repair shops	Monthly Monthly Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
502030 Car-washing	Car-washing	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
551000 Hotel services	Package tours Price per 24 hours stay at 36 hotels	Yearly Yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
553000 Food serving services	12 specified products	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
555000 Canteen and catering services	16 specified products	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.

Product No./Name	Kind of information	Frequency	Use of data
601010 Interurban passenger transportation services by railways	Norwegian State Railways, single ticket, 2 cl., 50 km. Reservation ticket.	Monthly Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
602123 Urban and suburban passenger transportation by bus	19 specified services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
602130 Interurban passenger transportation by bus	12 specified service's	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
602210 Taxi services and rental services of passenger cars with operator	Taxi fares in the cities Oslo, Bergen, Trondheim and Stavanger. Taxi fare per km, interurban	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
611011 Passenger transport services in local inland water	6 specified services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
611012 Passenger transport services in distance inland water	5 specified services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
621010 Scheduled passenger transportation services by air	4 specified services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.

Product No./Name	Kind of information	Frequency	Use of data
642011 Public telephone services	5 specified services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
642013 Mobil telephone services	8 specified mobile telephone services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
748120 Photographic services	3 specified services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
803010 Higher education services	Payment for 6 types of schools, level 2 and 3 of ISCED	Yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
804110 Driving school services	Price per hour, driving school	Yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
804200 Adult and other education services n.e.c.	Payment for 6 types of schools	Yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
851210 Medical practice services	Consultation price at specialists and general practitioners	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.

Product No./Name	Kind of information	Frequency	Use of data
851413 Services provided by physiotherapists and other paramedical persons	Consultation price at physiotherapists	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
900091 Sewage services	Consumption of 175 cubic metres a years	Half-yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
900092 Refuse disposal	Price of weekly collection of one garbage can	Half-yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
922001 Radio and television services, licences	Licence fee	Yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
930110 Washing and dry-cleaning services	4 specified services	Monthly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.
5520000 Other accommodation services (other than hotel services)	The Norwegian Mounting Touring Association, prices per night by type of accommodation	Yearly	Deflation of household final consumption expenditure and intermediate consumption in the NA. Consumer price index.



## ANNEX 9

### SWEDEN

Specification of service	Type of price observed	Quality adjustment	Frequency of pricing	Use of data
Hotel rates for business travellers	Transaction price	No	Quarterly	Deflation of intermediate consumption in the National Accounts
Rents for offices, shops, etc.	Agreed price per m <sup>2</sup>	No	Twice a year	Deflation of intermediate consumption in the National Accounts

In addition to these two areas, data collection is underway for three additional areas: road transports, air fare for business travellers and telecommunications.