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SESSION 2: MINI PRESENTATIONS ON PRODUCER PRICE INDICES

PPI for Scheduled Air Transport in Sweden

Version 1

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PPI for Scheduled Air Transport in Sweden

1. Introduction

The development programme of PPI for Services in Sweden started in January 2000. The work is carried out as a project by the Department of Economic Statistics and this year it includes, among other things, the development of all freight transport industries including air transport of freight, scheduled and non-scheduled. The development work in this area began in autumn 2002. As PPI for Services in Sweden already produces price indices for both scheduled domestic and international air transport of passengers, this document summarises both parts: the description of existing indices and the development efforts on PPI for air transport of freight so far.

2. Industry description and output (overview of statistical classification and industry structure)

2.1 Statistical classification of industry

In SE-SIC 92, the Swedish Standard Industrial Classification 1992, the Subgroup 62.10 is called Scheduled air transport, including scheduled air transport services of both passengers and freight. That subgroup corresponds to Class 62.10 in NACE Rev.1. The code in ISIC Rev.3 for the Group of Scheduled Air Transport is 621. The Class 6210 relates to Scheduled air transport including transport of passengers or freight by air over regular routes and on regular schedules.

In CPC Ver.1.1, Division 66 is called Air transport services. This Division is divided in the following Groups, Subgroups, Classes and Subclasses:

661	Air transport services of passengers
6611	Scheduled air transport services of passengers
66110	Scheduled air transport services of passengers
662	Air transport services of freight
6621	Air transport services of letters and parcels
66210	Air transport services of letters and parcels
6629	Air transport services of other freight
66290	Air transport services of other freight
663	Transport services via space
664	Rental services of aircraft with operator

The last two Groups are not relevant for this survey.

There are four CPA codes in the Group 62.1 (Scheduled air transportation services): 62.10.10 Scheduled passenger air transportation services, 62.10.21 Scheduled transportation services of mail by air, 62.10.22 Scheduled transportation services of containerised freight by air and 62.10.23 Scheduled transportation services of other freight by air.

2.2 Providers of services and industry structure

Providers of scheduled air transport services have to offer services according to a published schedule on a regular basis over regular routes. The industry includes both providers of air transport of passengers, and providers of air transport of freight. Enterprises providing scheduled air transport of mail are also included in the industry. In this industry, enterprises provide their services over a large geographic area. Swedish production is considered domestic if international passenger and/or freight (including mail) air transport is provided by companies registered in Sweden.

Enterprises primarily engaged in non-scheduled air transport, such as charter, air taxis and air sightseeing services are excluded from 621.

2.3 Industry output

There are about 280 enterprises operating in 62 Air transport industry and the majority of them are very small. Only 120 enterprises provide air transportation services as their main business, of which 40 are classified as 621 Scheduled air transport and 80 as 622 Non-scheduled air transport. The ten biggest enterprises alone cover 90 per cent of turnover of the industry as a whole. Travel Agencies are excluded from this industry.

Air transport of passengers is the dominating part of the air transport industry in Sweden. Only three per cent of the turnover of the industry came from the air transport of freight in 2001 and this number is relatively stable over time.

Volume statistics of the industry are available on the website of the Swedish Civil Aviation Administration (Luftfartsverket) <http://www.lfv.se>. The responsible authority is SIKÅ (Swedish Institute for Transport and Communications Analysis).

3. Scheduled Air Transport of Passengers

3.1 PPI for Scheduled Domestic Air Transport of Passengers

Price information for scheduled domestic air transport of passengers has been collected since December 1995. Prices are collected monthly, using an e-mail survey. The respondents submit price information for tickets for both business travel and private travel. Business travel refers to passenger travel in the line of duty and for which the employer pays. Commuter travel passes, group tickets, corporate tickets, etc. are included in price information for business travel. Tax is excluded for business travel. The collection of prices covers the major part of scheduled domestic air transport of passengers.

The index for both business travel and non business (private) travel is published as a quarterly index since 2002 at Statistic Sweden website:

<http://www.scb.se/statistik/pr0801/pr0801tab1bas1996eng.asp>

During 1997 to 2002, the index has been published annually in Statistical Report P 10 SM, as a monthly index. See the attached annex.

3.2 PPI for Scheduled International Air Transport of Passengers

The main user of PPI for Services in Sweden is the National Accounts Unit at Statistics Sweden. The indices are used for deflating the production values at the product group levels. There are three product groups within air transport industry in the system of the Swedish National Accounts. 62A Air transport of passengers is one of them. To cover the major part of the group, it was necessary to develop PPI for scheduled international air transport of passengers as well. The development work started during autumn 1999. The index has been formed as a producer price index for passengers with scheduled airlines, tracking price developments for tickets in business class and economy class.

3.2.1 Index Methodology

The Swedish PPI for scheduled air transport services uses revenue data collected by the Services Unit of Statistics Sweden as a basis for the sample of respondents. The revenue data includes the turnover derived from both passenger and freight transportation services.

The sample of flight routes is the same as in the CPI, international flights. Departure cities are Stockholm and Gothenburg.

The index is calculated in two steps. A sub-index is first calculated for each flight route and subsequently the indices for the different flight routes are weighted together to make a total index for scheduled international air transport of passengers.

Both ticket categories and flight routes are weighted. Information on the respondent's turnover for flight routes and ticket categories is used as a basis for calculating these weights for each flight route.

A weighted average of four different categories of tickets in economy class and two categories in business class are included. Since the respondent's revenues for business class are larger, the weight of business class tickets represents approximately 90 per cent of the total weight for ticket categories for most flight routes. This means that the PPI for scheduled international air transport of passengers is primarily affected by price developments in business class tickets. Price developments are not currently tracked for business travel passes, i.e. vouchers and annual passes.

Price information is received on a monthly basis from the respondent and is updated monthly in the index calculations. The prices are as per the fifteenth of each month.

Since one respondent has the dominant position in the Swedish air transport industry, the index cannot be published.

For the purposes of use within the National Accounts, the PPI for Scheduled domestic air transport of passengers and the PPI for Scheduled international air transport of passengers are weighted together to produce the quarterly index of Air transport of passengers.

The PPI is computed as an annually chained price index with Laspeyres links. The weights are updated annually.

4. Scheduled Air Transport of Freight

4.1 PPI for Scheduled Air Transport of Freight

As mentioned above, there are three product groups within the air transport industry in the system of the Swedish National Accounts. Another of these is 62B Air transport of freight.

The Swedish PPI for Scheduled air transport of freight uses revenue data obtained from the Services Unit and business databases of Statistics Sweden. The revenue data includes the turnover derived from both passenger and freight transportation.

The transport industry is concentrated to a few large providers that cover most of the market. Consequently, the scope is limited to the large providers and this helps to reduce the total reporting burden. The project currently visits each of the large companies in this industry.

Prices will also be collected for the transport of mail, since it is a significant part within the air transport of freight.

The test survey will be carried out during Autumn 2003. The actual price collection is planned to start from 2004 on a quarterly basis.

Usually the main user of PPI for Services in Sweden is the Swedish National Accounts but, in this case, the goal is also to assist in the amendment of short-term statistics, EU Council Regulation 1165/98.

4.2 Index Methodology

4.2.1 Price determining characteristics

It is difficult to compile price indices for transport of freight since there are generally no fixed tariffs. Each transport of freight is seen as a unique service. The price for transporting freight from one place to another can depend on a variety of factors, such as the distance between the places, the weight of the cargo, whether it is a domestic or international destination, whether there is return freight, the kind of product transported, etc. Therefore Model Pricing is suggested for compiling price indices.

4.2.2 Model Pricing

Briefly described, Model Pricing involves the choosing, in cooperation with the enterprises in the industry, a number of services that are representative for the business activities. These are specified by characteristics such as type of freight, distance of transport and customer. When one of the enterprises notifies that a service is no longer representative, that service is replaced by another more representative activity. Key issues in the use of Model Pricing are: regular updating of the models used, representativity of the models and actual price charged.

5. Issues in Maintaining Constant Quality

The ability to maintain constant quality is an important issue in pricing air transport services. To observe and manage changes in the industry's offerings requires a well-specified description of the services and a generally high level of industry monitoring. When changes in services are identified and noted, a quality adjustment should also be carried out.

6. Price Measurement Challenges

The lack of detailed classification is one serious obstacle. It is relatively difficult to get hold of economic information on the detailed level necessary for the weighting calculations in the index. The structure of the classifications from NACE and ISIC do not seem totally suitable for the usual concepts of the transport industry. It would be more suitable to have passenger transport and freight separated at a higher level in the hierarchy of the classification schemes.

Changes in traditional distribution of airline tickets have been observed. Call centres, the Internet, WAP or digital television, etc. now exist alongside the traditional channels of travel agency and/or direct customer. Should this affect the PPI in the long term?

The service providers' bonus programmes have acquired an increasingly important strategic role as the air transport market has been deregulated and competition has increased. Passenger loyalty has become vital to the profitability of the service providers. It is important to establish a long-term relationship with frequent-flyers. One question is how to make quality adjustments for the best customer magazine, the best Internet page or the best bonus promotions? How can these be evaluated in a proper way?

The project is also required to develop an index for export of air transport of goods. Export of services is defined as the payment by an enterprise located abroad for a service from an enterprise located in Sweden.

7. End note

Progress is being made in the development of PPI for Services in Sweden. The coverage of the PPI for the air transport industry has been expanded step by step, and from quarter 1 2004, it will also include air transport of freight.

Annex

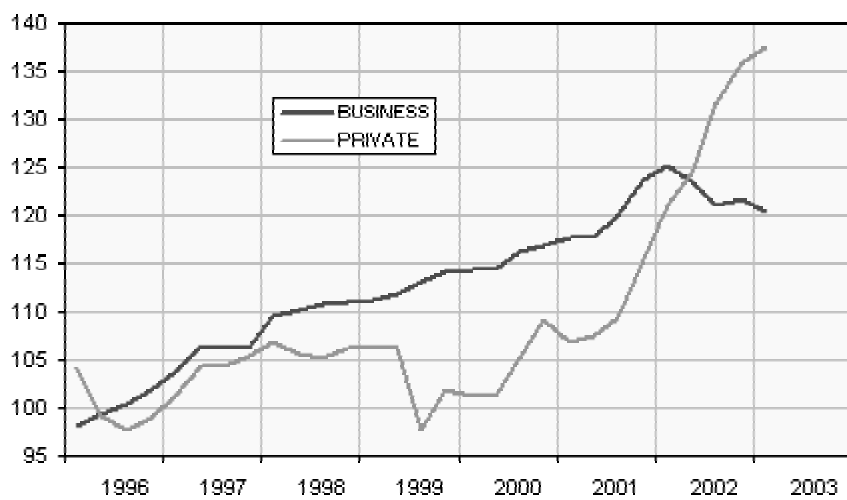
PPI for Scheduled Domestic Air Transport of Passengers

		Business	Private
1996	Quarter 1	98.2	104.1
	Quarter 2	99.5	99.2
	Quarter 3	100.4	97.8
	Quarter 4	101.9	99.0
1997	Quarter 1	103.8	101.2
	Quarter 2	106.5	104.4
	Quarter 3	106.2	104.4
	Quarter 4	106.2	105.5
1998	Quarter 1	109.6	106.8
	Quarter 2	110.2	105.6
	Quarter 3	110.7	105.3
	Quarter 4	111.0	106.3
1999	Quarter 1	111.3	106.3
	Quarter 2	112.0	106.3
	Quarter 3	113.1	97.7
	Quarter 4	114.2	101.8
2000	Quarter 1	114.3	101.2
	Quarter 2	114.3	101.2
	Quarter 3	116.3	105.2
	Quarter 4	116.9	109.1
2001	Quarter 1	117.6	106.8
	Quarter 2	117.8	107.5

	Quarter 3	120.0	109.4
	Quarter 4	123.9	115.3
2002	Quarter 1	125.2	121.0
	Quarter 2	123.6	124.4
	Quarter 3	121.1	131.7
	Quarter 4	121.7	135.8
2003	Quarter 1	120.4	137.6

Source: Statistics Sweden

PPI for Scheduled Domestic Air Transport of Passengers, 1996=100



Source: Statistics Sweden

Data up to and including First Quarter 2003

