



STATISTICS NETHERLANDS

Department for National Accounts

P.O. Box 4000
2270 JM Voorburg
Netherlands
tel. (070) 3374830
fax. (070) 3375981

DATA FOR THE SERVICE SECTOR
Priorities for the Dutch National Accounts

Gerrit M. Zijlmans *)

August, 1995

*) Paper to be presented at the 10th meeting of the Voorburg Group, September 11-15, 1995. The author thanks Steven Keuning for valuable remarks. The views expressed in this paper are those of the author and do not necessarily reflect the views of Statistics Netherlands.

BPA no.: 6745-95-PNR\Ext

Notanr.: 098-95-DFB.PNR

Data for the service sector: priorities for the Dutch National Accounts

ABSTRACT

This paper gives an overview of the service sector data available for the Dutch National Accounts (NA) and of the priorities for filling in the gaps, as the NA see them. Furthermore, something is said about the plans and programs Statistics Netherlands has been developing with respect to these priorities.

Data for the service sector: priorities for the Dutch National Accounts

CONTENTS

1. Introduction	1
2. Data available for the National Accounts	3
3. Priorities	6
4. Actions and plans	8
Literature	11

Annex 1: Service sector data for Dutch National Accounts

Annex 2: Priorities for filling in the gaps

Data for the service sector: priorities for the Dutch National Accounts

1. Introduction

Basic statistics on the service sector are not as abundantly available as many economists would like. For example, in Business Week of Nov 7th, 1994 government statistics are called myths, because the service sector is covered so badly. In the BEA's strategic review, published in April 1995's Survey of Current Business, one can find a.o. that "the need to update and fill gaps in coverage, particularly those in services" is an important theme, and services are called a "high priority area". This, of course, concerns the USA, but clearly they are not the only country having statistical problems of this kind. Also at Statistics Netherlands (CBS) this problem was recognized and since a few years the CBS has been working on a program to fill the gaps in the statistical coverage of the economic process.

At about the same time, another program was started. The CBS wishes to relieve the survey burden firms and individuals suffer from. This may seem contradictory to better field coverage, but in fact it means that ways are sought to make surveys more efficient. Traditional ways to gather data are under evaluation, plans are being made to make use of administrative data sources, electronic data interchange and sources hitherto mostly or totally unused, e.g. fiscal sources.

Statistics Netherlands has almost a monopoly on official statistics. Over 90% of them is made by the CBS. This implies that both plans mentioned cover in fact all economic statistics. As the service sector is the black sheep of the statistical family and at the same time has the largest contribution to GDP, these plans will have their greatest effect on service sector statistics. In this paper we will restrict ourselves to the service sector. Moreover, we try to look at things from the point of view of the yearly production account of the National Accounts. This means a.o. that, although survey methods may have severe consequences for quality and field coverage, we will stress the priority for filling in the gaps.

If a statistical office tries to fulfill the National Accounts' wishes on the service sector, the first question would be: what (more) do they need to give an adequate description of the service sector? To answer this question an overview is given of what data are available in The Netherlands at this moment and of what NA would like to have. The information gap thus becoming clear cannot wholly be filled on short notice. Therefore priorities will be attached to the data needs, according to a few criteria.

This paper is written at a time the CBS is "on the move". As said before, it is felt that the service sector does not receive the statistical attention it needs. As the outcome of this process is unknown, this paper is at least for a part tentative: the CBS may in fact decide that priorities should lay differently.

The contents of this paper is as follows. In section 2 data availability in the Dutch case is described in the light of what yearly figures NA would like to have. This is done for a number of variables, both for the provisional NA estimates and for the definite estimate. Section 3 gives some criteria which eventually will lead to the priorities in the view of the NA. In section 4 something is said about the CBS plans in this field.

2. Data available for the National Accounts

Restricting ourselves to the yearly description of the production process, i.e. production, intermediate consumption and value added, data on all three items mentioned are necessary. In the case of value added this boils down to data on wages paid etc. and employment.

In The Netherlands, production, intermediate consumption and value added are estimated simultaneously in current prices and in prices of last year. Therefore, data on price changes should be available or, if this not possible, data on volume changes. We refer to the paper by Verbiest, Drost and In 't Veld for a discussion on this subject and the methodology used at the Dutch National Accounts. Here we restrict ourselves to mentioning the need for data on prices or volumes.

Furthermore surveys in this field must preferably be linked to a business register. The Dutch CBS possesses and maintains a General Business Register. Linkage to this GBR more or less guarantees full coverage of the industries involved. In case all industries are surveyed on the basis of the GBR, this would mean full coverage of GDP. So the data needs of NA include the demand that the data surveys involved are based on the GBR.

Last but not least, data on the supply of goods and services are of great value in the balancing process of the Make and Use tables. To be more specific, for each industry National Accounts would like to know to what types of firm or final demand categories output is supplied to, especially if this concerns exports.

To summarize the above, the National Accounts need data on the following variables:

- production
- intermediate consumption
- wages etc.
- employment
- output price (deflator)

- survey's linkage to business register
- market data.

For industries outside the service sector these items, except price data for which separate surveys are held, can mostly be obtained from so called production statistics. Furthermore, separate surveys on employment and wages paid cover almost all industries. Both are based on the general business register. A minor drawback is that not all production statistics ask exactly the same questions. Worse, however, is that only part of the service sector is covered by production statistics. Sometimes adequate alternatives are available, sometimes not. Therefore we will describe the actual situation variable by variable.

Another important item, of course, is the timeliness of the data. The Dutch National Accounts produce three estimates for each reporting year^{*)}. The first provisional estimate is published just over half a year after the end of the reporting period. This means that the data involved are required in about 4 months time. For the second provisional estimate data should be available 13 months after the end of the reporting period and for the definite estimate the time lag for the can be about 21 months.

The production blocks of the provisional estimates consist of aggregated input-output tables, while the definite estimate is based on a very detailed set of make and use tables. This implies that the required precision for provisional data is less than that for definite data. In general, we have not made a distinction with regard to quality.

A few items are left out of the overview. Full coverage by the National Accounts includes estimations for fraud and illegal activities. These items can hardly be expected to appear in CBS surveys. In fact, the CBS is developing a program to gather this kind of data from fiscal sources. This will amount to a certain degree of cooperation with the fiscal authorities.

^{*)} Also short term NA estimates are compiled, but these are not reviewed here.

which are of course very much interested in the GDP estimates resulting from this (EC contribution is partly based on GNP). In this paper we will not elaborate any further on these subjects.

Annex 1 shows the data available for the service sector. To fulfill all of the National Accounts' wishes, all cells should contain an item. An empty cell literally means an information gap, as experienced by the NA. This boils down to one of two possibilities: 1. the information lacks or 2. the data concerned are always too late. Possibility 1 has by far the largest chance of occurrence.

3. Priorities

It is clear that the CBS cannot, on short notice, fill all data gaps for the National Accounts. Furthermore some gaps are more serious than others. By assigning priorities we try to indicate the order in which the information problems can best be solved. To assign priorities properly a number of criteria are used.

The first criterion concerns timeliness. National Accounts (and some of their clients) find that the second provisional estimate of the National Accounts should be qualitatively upgraded and eventually become the definite one. This implies that basic statistics departments should be able to produce results within 13 months after the year under report. In this regard help can be expected from a new CBS policy: it is proclaimed to be one of the main targets of the CBS that 1 year must suffice to compile yearly statistics. Regarding the most important data source, the production statistics, common practice is that they produce their definite results after about 1½ year, and are able to provide a provisional estimate after 1 year. Therefore, filling the gaps for the second provisional estimate of the NA gets the highest priority, filling the gap for the definite estimate the lowest.

Contribution to GDP is a very natural second criterion. It is equivalent to field coverage, as far as the National Accounts are concerned, and very straightforward. Even the fact that for some industries value added estimates are drawn out of thin air is not very relevant: it explicitly clarifies NA's valuation of its importance.

There is still a third criterion. This concerns the difference between functional and institutional statistics. National Accounts prefer the institutional type, if only to be able to certify full coverage of the field. Traditionally however, a number of CBS surveys yield a description of a certain phenomenon instead of the description of a certain industry. In The Netherlands this is particularly the case for health care and some other social services. In other words: a large quantity of value added is not covered institutionally but functionally. A further disadvantage of this type

of surveys is that the specification of intermediate consumption is far less detailed than that of the production statistics. That is why NA would like to assign high priority to replacing these "costs and financing" statistics by normal production statistics, based on the General Business Register.

This being said, priorities are divided into three categories. Top priority means that the gap should be filled as soon as possible. The quality of the NA is severely hampered because of this lack of data. Normal priority means that NA would like to have the gap filled, low priority in fact means that the NA is not very seriously bothered by the lack of this kind of information. This may not seem a very sophisticated way of dealing with priorities, but in fact it is a very practical one.

The CBS is not compiling statistics just for the benefit of the National Accounts. Apart from the three programs mentioned (field coverage, timeliness and survey burden), the departments involved in producing basic statistics have a number of targets which do not directly involve the NA. An important one is the aim to have a more direct contact with clients and data suppliers. As a result, the wishes of the National Accounts form only part of the business plans of these departments (see also section 4). Therefore, intensive and continuous contact between NA and the rest of the CBS is necessary, and the priorities as assigned by the NA must leave some room to manoeuvre.

Annex 2 gives an overview of priorities as the Dutch National Accounts see them.

4. Actions and plans

From the above it is clear that the Dutch National Accounts also experience large "white spots" concerning the service sector. The tables given in the annexes were compiled in the beginning of 1995, though in more detail, at the request of the CBS policy makers. In the mean time, departments on basic statistics have been developing and executing plans with regard to coverage and timeliness of data on the service sector. Here those plans are divided into two parts, because the plans on price statistics do not completely match those on the other items.

4a Prices

In the beginning of 1995 a workshop on price surveys was held. One of the results of this workshop was, that within the CBS its policy on price surveys was brought into the limelight and has been there ever since. The contributions here of Van Tuinen and of Verbiest, Drost and In 't Veld are but examples.

For the National Accounts output deflation is quite an important item. From the overviews in this paper it can be concluded that price surveys do not come close to fulfilling the needs of the National Accounts. Clearly more surveys on output prices are needed. However, the measuring of output prices in the service sector is by no means an easy task. All kinds of theoretical and practical problems have to be dealt with. Furthermore, as staff is scarce, priorities had to be set as accurately as possible.

At the workshop a number of criteria were mentioned which could be used in determining the order of the industries for which new price surveys should be established, namely:

- share in final demand (i.e. direct influence on deflating GDP)
- measurability
- availability of alternatives (i.e. unit values or volume indicators?)
- how much do prices differ for different demand categories?

- price volatility
- speed of technological development
- heterogeneity of output (product mix).

In practice, the first four of the criteria mentioned were used to draw a top priority list (Sevat/Zijlmans, 1995):

1. part of the communication and transport sector
2. a number of commercial services, however difficult this may be
3. that part of hotels, restaurants etc. that supplies many services to other firms (for the rest consumer prices are available)
4. real estate (trade and exploitation).

In the medium term business plans of the basic statistics departments most of these suggestions have been taken up. This concerns the departments of commercial services and of trade and transport. In addition, discussions are going on about a price survey on the services of real estate brokers.

4b Other

One of the most important new CBS programs, as seen in the eyes of the National Accounts, is called "partial integration". This program is implemented to enable the basic statistics departments to supply complete overviews of their part of the economy. This also entails that they should eventually be able to fulfill all the requirements of the National Accounts. In this respect exhaustiveness (linkage to the GBR, estimates on not surveyed firms, fraud etc), continuity of the data and transformation of survey variables to NA concepts play a major role. Also the question is raised whether balanced NA results should/can be used to update the results of production statistics.

On the one hand this means that demands are made concerning quality, timeliness and coverage of the survey results. On the other hand, to make this program a success, the National Accounts must be very clear about their concepts and their methodology. Thus, both parties must be, and in fact are, deeply involved in this scheme. We will give a birds' eye view of the plans

made and actions taken.

The National Accounts have implemented a set of tailor made courses for the other CBS departments. Apart from the PR, this leads to many discussions concerning the whole data stream concerning economic statistics. For the basic statistics departments the business plans are ambitious. The field of the commercial services will in the near future be covered by a complete set of short term surveys. Here not only the influence of the CBS program is felt, but also that of the Eurostat regulations. The results will be of immediate use for the first (provisional) NA estimate. Besides that, plans have been made to set up production statistics on research and development (now only functionally surveyed) in the course of 1997. For trade and transport statistics full coverage of the field, including short term statistics, should be realized within a few years. Health care and welfare statistics are planning to have surveys based on the business register within 4 years from now. And for statistics on financial enterprises a discussion is going on to what extent fiscal registrations can be used (see the paper of Van de Stadt).

The conclusion must be that the Dutch CBS has been developing many plans to fill the gaps in services sector statistics. The National Accounts should benefit from them, and official statistics on the service sector should be a lot better by the turn of the century. We do not doubt that by that time there still will be economists who claim that the ideal situation is still far away...

Literature

U.S. Chamber of Commerce Bureau of Economic Analysis, 1995, Mid-Decade Strategic Review of BEA's Economic Accounts: An Update. Survey of Current Business, April 1995.

Michael J. Mandel, 1994, The real truth about the economy. Business Week, November 7, 1994, p. 44-49.

Peter Sevat & Gerrit Zijlmans, 1995, Waarneming producentenprijzen in de dienstensector, het Veldhoven initiatief. (Only in Dutch)

Huib van de Stadt, 1995, Replacing business surveys by tax registers. Paper to be presented at the 10th meeting of the Voorburg Group, September 11-15, 1995.

Piet Verbiest, Feike Drost, Arij in 't Veld, 1995, National Accounts: Deflation of value added in service industries. Paper to be presented at the 10th meeting of the Voorburg Group, September 11-15, 1995.

Explanation of abbreviations

An empty cell means that there are no data

-p means partial coverage

Estimate

def definite estimate
prov2 second provisional estimate
prov1 first provisional estimate

Production and Intermediate consumption

bs branche survey (external source)
cf "costs and financing" statistics (functional)
cf/3 alternating coverage of 1/3 each year
fin statistics on financial institutions
gf financial reports of government
ind indicator of value, volume and/or price change
pa production statistics
pa5 5-yearly production statistics
ts turnover statistics
yr year report (external source)

*1 based on stock of dwellings and the rent survey
*2 partly gf, partly reports to Ministry of Economic
Affairs, partly no data
*3 number of members

Wages and Employment

x statistics on wages and employment
a included in data on a larger aggregate

Deflator

x price statistics
a implicitly calculated
p partial coverage
t test survey

General Business Register (GBR)

x survey based on the GBR
r survey based on an own register

Market

x more or less detailed data
cons data on supply to consumers
exp data on exports
c+e data on supply to consumers and exports
* data on type of staff

Name	Estimate	Production	Int_cons	Wages	Employment	Deflator	GBR	Market
Trade	def	ps-p	ps-p	x	x	a	x	x-p
	prov2	ps-p	ps-p	x	x	a	x	x-p
	prov1			x	x	a	x	x-p
Hotels, restaurants etc.	def	ps	ps	x	x	x	x	
	prov2	ps	ps	x	x	x	x	
	prov1	ts		a	a	x	x	
Car repair services	def	ps	ps	x	x	x	x	
	prov2	ps	ps	x	x	x	x	
	prov1	ts		x	x	x	x	
Other repair services	def	ps-p	ps-p	x	x	x	x	
	prov2	ps-p	ps-p	x	x	x	x	
	prov1	ts-p		a	a	x	x	
Transport	def	ps	ps	x	x	v, x-p	x	exp
	prov2	ps, yr	ps, yr	x	x	v, x-p	x	exp
	prov1	ind-p				v, x-p		
Telecommunications	def	yr	yr	x	x	v	x	exp
	prov2	yr	yr	x	x	v	x	exp
	prov1	ind				v		
Banking and insurance	def	fin	fin	x	x			x
	prov2	fin	fin	x	x			x
	prov1	fin	fin	x	x			x
Dwellings (trade and exploitation)	def	*1		x	x	x		
	prov2	*1		x	x	x		
	prov1	*1		x	x	x		
Other real estate	def							
	prov2							
	prov1							
Real estate agents	def	bs		x	x			
	prov2	bs		x	x			
	prov1			x	x			
Commercial services	def	ps-p	ps-p	x	x	t-p	x	exp, x-p
	prov2	ps-p	ps-p	x	x	t-p	x	exp, x-p
	prov1			a, x-p	a, x-p	t-p	x	

Name	Estimate	Production	Int_cons	Wages	Employment	Deflator	GBR	Market
Manpower recruitment services	def	ps	ps	x	x	t	x	*
	prov2	ps	ps	x	x	t	x	*
	prov1	ts		x	x	t	x	*
Leasing and rental services of movable property	def	ps	ps	x	x	x	x	c+e
	prov2	ps	ps	x	x	x	x	c+e
	prov1			x	x	x	x	c+e
Government and social security	def	gf	gf	x	a	a	x	
	prov2	gf-p	gf-p	x-p	a	a	x	
	prov1	gf-p	gf-p	x-p	a	a	x	
Education (state)	def	gf	gf	x	a	a	x	
	prov2	gf-p	gf-p	x	a	a-p	x	
	prov1	gf-p	gf-p	x	a	a-p	x	
Educational services (private)	def	ps5-p	ps5-p	a,x-p	a	x	x	
	prov2	ps5-p	ps5-p	a,x-p	a	x	x	
	prov1			a	a	x	x	
Religious organizations	def							
	prov2							
	prov1							
Health care	def	cf	cf	x	x	x	r	
	prov2	cf	cf	x	x	x	r	
	prov1	cf-p		a	a	x	r	
Veterinary surgeons	def			a	x	x		
	prov2			a	a	x		
	prov1			a	a	x		
Welfare	def	cf-p	cf-p	x	x	x	r	
	prov2	cf-p	cf-p	x	x	x	r	
	prov1			a	a	x	r	
Cultural services	def	cf,ts-p	cf,ts-p	a,x-p	a,x-p	a,x-p		
	prov2	cf,ts-p	cf,ts-p	a,x-p	a,x-p	a,x-p		
	prov1			a,	a	a		
Sports and recreational services	def	cf/3	cf/3	x	x	a	x	
	prov2	cf/3	cf/3	x	x	a	x	
	prov1			a	a	a	x	

Name	Estimate	Production	Int_cons	Wages	Employment	Deflator	GRR	Market
Gambling and betting	def prov2 prov1	yr yr yr	yr yr yr	x x a	a a a			
Industrial organizations	def prov2 prov1	*2 *2 *2	*2 *2 *2	x x a	x x a			
Employers' organizations	def prov2 prov1	*3 *3 *3		a a a	a a a			
Research	def prov2 prov1	cf cf cf	cf cf cf	x x a	x x a	v v v		
Cleaning and disinfecting (private)	def prov2 prov1	ps p ps-p ps-p	ps-p ps-p ps-p	x x a	x x a	x x x	x x x	
Cleaning and disinfecting (government)	def prov2 prov1	gf gf gf	gf gf gf	x x a		x x x	r r r	
Laundries and hairdressers	def prov2 prov1	ps ps ps	ps ps ps	x x a	x x a	x x x	x x x	x x x
Other personal services	def prov2 prov1	ps5-d ps5-d ps5-d	ps5-d ps5-d ps5-d	x x a	x x a		x x x	
Household services	def prov2 prov1			x-p x-p x-p	x-p x-p x-p	x x x		

Explanation of abbreviations

- ++ top priority
- + priority
- 0 no or low priority

- i should be transferred to institutionally based statistics
- f estimates for fraud etc. should be made
- t timeliness should be improved

Name	Estimate	Production	Int_cons	Wages	Employment	Deflator	GBR	Market
Trade	def	+	+					+
	prov2	+	+					+
	prov1	+	+					+
Hotels, restaurants etc.	def	f	f	f				+
	prov2	f	f	f				++
	prov1	f	f	f				+
Car repair services	def	f	f	f				+
	prov2	f	f	f				+
	prov1	+f	+f	f				+
Other repair services	def	+	+					0
	prov2	+	+					0
	prov1	+	+					0
Transport	def							
	prov2							
	prov1	0	0	0	0		0	+
Telecommunications	def	t	t					
	prov2	t	t					+
	prov1	0	0	0	0		0	+
Banking and insurance	def	+	+					
	prov2	+	+					
	prov1	+	+					
Dwellings (trade and exploitation)	def	+	+				0	0
	prov2	++	++				0	0
	prov1	++	++				0	0
Other real estate	def	+	+	+	+	+	+	+
	prov2	++	++	++	++	++	++	++
	prov1	+	+	+	+	+	+	+
Real estate agents	def	+	+			+	+	+
	prov1	++	+			+	+	++
	prov2	+	+			+	+	+
Commercial services	def	+	+			+		+
	prov2	+	+			++		+
	prov1	+	+			+		+

Name	Estimate	Production	Int_cons	Wages	Employment	Deflator	GBR	Market
Manpower recruitment services	def					+		+
	prov2					++		++
	prov1	+	+			+		+
Leasing and rental services of movable property	def							
	prov2							
	prov1	+	+					
Government and social security	def							0
	prov2	+	+	+				0
	prov1	+	+	+				0
Education (state)	def	0	0			0		0
	prov2	0	0			0		0
	prov1	0	0			0		0
Educational services (private)	def	+	+	+				0
	prov2	++	++	++				0
	prov1	++	++	++				0
Religious organizations	def	+	+	+	+	+	+	0
	prov2	++	+	++	+	+	+	0
	prov1	+	+	+	+	+	+	0
Health care	def	if	if				+	0
	prov2	if	if				+	0
	prov1	ift	ift				+	0
Veterinary surgeons	def	+	+				+	+
	prov2	+	+				+	+
	prov1	+	+				+	+
Welfare	def	+i	+i				+	0
	prov2	++i	++i				+	0
	prov1	+i	+i				+	0
Cultural services	def	0	0	0	0	+	+	0
	prov2	+(i)	+	0	0	+	+	0
	prov1	0	0	0	0	+	+	0
Sports and recreational services	def	+	+					0
	prov2	++	++					0
	prov1	+	+					0

Name	Estimate	Production	Int_cons	Wages	Employment	Deflator	GBR	Market
Gambling and betting	def	+i	+i			+	+	0
	prov2	+i	+i			+	+	0
	prov1	+i	+i			+	+	0
Industrial organizations	def	+	+			0	+	0
	prov2	+	+			0	+	0
	prov1	+	+			0	+	0
Employers' organizations	def	+	+	+	+	0	+	0
	prov2	++	++	++	++	0	+	0
	prov1	+	+	+	+	0	+	0
Research	def	+i	+i			+	+	+
	prov2	++i	++i			+	++	+
	prov1	+i	+i			+	+	+
Cleaning and disinfecting (private)	def	+	+					+
	prov2	+	+					+
	prov1	+	+					+
Cleaning and disinfecting (government)	def	+	+		+		+	+
	prov2	+	+		+		+	+
	prov1	+	+		+		+	+
Laundries and hairdressers	def							
	prov2							
	prov1	+	+					
Other personal services	def	0	0			+		+
	prov2	+	+			+		+
	prov1	0	0			+		+
Household services	def			+	+			
	prov2			+	+			
	prov1			+	+			