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COMPARABILITY OF THE SECTOR GENERAL GOVERNMENT IN THE NATIONAL ACCOUNTS

a case study for The Netherlands and Germany

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Abstract

In this paper a first step is made to answer the question whether data of the sector General Government in the National Accounts are appropriate for international comparison. As the data in the National Accounts of the EC countries are compiled according to the internationally accepted rules of the European System of Integrated Accounts (ESA), they can be used as a starting point for international comparison. Nevertheless, there can be differences between countries that give rise to statistical incomparability.

In this study two main categories of differences between countries are distinguished: differences due to lack of compliance with the international guidelines, and institutional differences. We propose adjustments to National Accounts data when differences between the countries lead to different amounts of economic transactions of the sector General Government, while the actual government activity does not lead to differences in a material sense for other actors.

A module was worked out for two EC countries, Germany and The Netherlands, observing the current and capital flows of the sector General Government for the years 1987 and 1990.

Adjustments were made for two major differences between the two countries. In the first category of differences, the discrepancy in the sectoring of some Non-Profit Institutions is eliminated. The second category of differences yields the financing of the old age pension schemes for civil servants.

Comparison of the adjusted data of both countries yields striking differences in the total resources as well as in the total uses of the General Government: in The Netherlands these are substantial higher. On the resources side the taxes and social contributions turn out to be higher in The Netherlands. On the uses side the final consumption expenditures and the social benefits are higher.



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1. Introduction

This paper examines the comparability of the sector General Government in the National Accounts (NA), an interesting topic for international comparison. Answers to questions such as 'how much of Gross Domestic Product (GDP) is made up of taxes and social contributions?' or 'what proportion of GDP is accounted for by the net lending or net borrowing balance of the government?' give an indication of differences in the financial burden governments place on their economies.

As a case study, the data for the sector General Government of two EC countries, The Netherlands and Germany, are compared in the context of the NA. However, international comparability studies are burdensome because of problems with the comparability of data. This study focuses on the analysis of main problems in comparability between Germany and the Netherlands using NA data. NA data are increasingly used for these purposes. The fact that NA are harmonized for EC countries gives rise to the idea that these data must be comparable. It is interesting to put this to the test.

The research is restricted to the current and capital transactions, so financial transactions and balance sheets are beyond the scope of this paper. The years 1987 and 1990 are observed.

The countries were chosen because Germany is The Netherlands' main trade partner and the two countries have a similar standard of living. There were some differences in 1990 due to the German unification. But as the influence of the reunion on the data will mainly increase from 1991, and as only rough data are available for the 'new' Germany, the data in this paper refer to the western part of Germany, including West Berlin (comparable with the 'old' Federal Republic).

The present paper examines the sector General Government in the NA. The data refer to the consolidated data of the sub-sectors Central Government, Local Government and Social Security of the NA. To eliminate

discrepancies due to differences in the internal organization of government, consolidated data are taken.

The results of this study are preliminary in the sense that only adaptations have been made for main problems. The aim of the exercise is to give an impression of the difficulties involved in international comparison of NA data.

In the context of international comparison many more things can be investigated: the comparison of government data of other countries; another sector (e.g. the Non-Financial Corporations Sector, focused on profitability); an analysis of time series. These are all recommendable subjects. The importance of international comparison using NA data was the stimulus to start with this first exercise.

2. The system of National Accounts

2.1 International guidelines

The NA give a systematic description of all economic processes, from production to financing. The actors in these economic processes have been grouped together in institutional sectors according to their principal role in the economic process. The main sectors described in the system are the Non-Financial Corporations sector, the Financial Corporations sector, the General Government sector, the Non-Profit Institutions serving Households sector and the Households sector. For all main sectors, in a sequence of accounts an overview is given of the total of resources and uses in a period, specified in a standard classification of transactions.

The central framework of the NA is a consistent and integrated system. The concepts, definitions and classifications have been set down in an international handbook of the United Nations, called the System of National Accounts (SNA). For the countries in the EC, a counterpart of the SNA is used: the European System of Integrated Economic Accounts (ESA). All EC member countries compile NA according to these international ESA guidelines. Therefore, the system of NA is very useful for international comparison.

The SNA and ESA are institutional accounting systems. That means that the fundamental units identified in the system are the economic units which are capable of owning assets and incurring liabilities on their own behalf. These units are called *institutional units*.

In ESA (second edition, 1979) the sector Government is defined as follows: "The sector General Government (S60) includes all institutional units which are principally engaged in the production of non-market services intended for collective consumption and/or in the redistribution of national income and wealth. The principal resources of these units are derived directly or indirectly from compulsory payments made by units belonging to other sectors.

The institutional units included in sector S 60 are the following:

- a) general government agencies (excluding public enterprises established as public corporations or, by virtue of special legislation, recognized as independent legal entities or classified as quasi corporate enterprises) which administer and finance a group of activities, principally of a non-market nature, intended for the benefit of the community
- b) non-profit institutions recognized as independent legal entities which are principally engaged in the production of non-market services and whose principal resources other than the proceeds of sales are derived from payments made by the government departments specified in a) above
- c) autonomous pension funds if the premium charged is not based on the individual exposure to risk."

Basically, data according to ESA are very useful for international comparison. All EC countries have applied the same, consistent guidelines for compiling their NA. So, these data give a systematic overview of the economic processes in a country, given the way things are legally organized in that country.

However, even when these international guidelines are used to compile the accounts for the sector Government in the NA, differences can still occur between countries.

Non-compliance with international guidelines

In the first place, differences can occur if the international guidelines are not fully applied. Because of measuring problems, e.g. if no data are available and it is not possible to make meaningful estimates, the actual registration in the NA of a country can deviate from the prescribed registration. Differences may also occur because of different interpretation of the international guidelines. For instance the vague borderline between transactions taxes and sales of goods and services can lead to differences in classification of transactions between countries.

Institutional differences

Secondly, differences between countries may be caused by institutional differences, i.e. differences in the way matters are (legally) organized in countries. A well-known example is how health care is financed.

In some countries a large part of the population is insured under social security funds. These funds provide social benefits to members of the community or to groups of individuals such as employees. The benefits are paid out of funds derived mainly from social contributions. Health care itself (producers of health care services) is privately organized. For example, hospitals charge their clients at market prices for services rendered. This is how The Netherlands organises health care funding (e.g. Medical Expenses Fund Act, Exceptional Medical Expenses Act). In other countries health care is provided (almost) free of charge to members of the community. Health care itself is directly financed by government, out of taxes and is (almost completely) part of the sector government (e.g. United Kingdom). This example illustrates that a difference in organization can lead to differences in the sectoring of institutional units and the classification of transactions.

Besides there are many institutional differences concerning size and composition of provisions. An example is the difference between countries in the borderline between private and collective insurance in the field of social protection.

2.2 How to treat differences

As stated above there are two main causes for differences between countries in NA data. These differences have an impact on the size of the financial flows of the sector Government. The question now is do we have to modify the government data to eliminate these differences and to get more comparable data?

Non-compliance with international guidelines

Of course, in principle adjustments must be made for imperfections in applying the international guidelines and for differences in interpre-

tation. The data will then be made fully compliant with international guidelines. The description of the sector Government will be the same for all countries given the (different) institutional organization of the economic process in those countries. Nevertheless, when no data are available at all and it is not possible to make meaningful estimates, no adjustments can be made.

Institutional differences

However, if the purpose is to get an idea of the real differences between the same sectors for different countries in for example shares of uses and resources as a percentage of GDP etc., adjustments will also have to be made for institutional differences insofar as they give rise to statistical incomparability. In other words, adjustments are only needed if the differences lead to different amounts of transactions of the government, while the actual government activity does not lead to differences in material sense for other actors (other things being equal). Of course, in this case, too, adjustments can only be made when it is possible to make meaningful estimates of the institutional differences.

It must be stated that it is important that in the core of the system of NA the original NA data are presented. These data are very useful as a starting point for international comparison. The adjustments to the original NA data for the above-mentioned differences to achieve a more meaningful comparison could be stated in a separate module. If this module is applied for the EC countries the number of differences will be substantial. A full (quantitative) description of the institutional differences between countries will be very demanding with respect of expertise and capacity. It also requires arbitrary choices. Therefore it is suggested to make adjustments only for the main differences.

For some specific subjects Eurostat, the statistical office of the EC, already pays attention to those aspects of (in)comparability. An example is the publication on social protection. The data in this publication are drawn up according to the European System of integrated Social Protection Statistics (ESSPROS). The definitions used in this system are similar

with those in ESA. But, in this publication the expenditures and receipts on social protection are registered irrespective the sector of origin and the way how it is financed. So, in ESSPROS more harmonized data are presented.

In the present paper a first step is made to get more harmonized NA data.

3. The sector Government in The Netherlands and Germany, a comparison

In the previous section it was stated that the original NA data are very useful as a starting point for international comparison. It was also concluded that for a more meaningful comparison it is necessary to make adjustments for some (institutional) differences between countries. In this paragraph the suggested module is applied for the data on the sector General Government of The Netherlands and Germany. To this end we start in section 3.1 with a presentation of the original NA data.

3.1 A comparison of original data

Before discussing the data let us dwell for a moment on the German unification. In October 1990, when the unification took place, Germany instituted a unification fund. From this fund West Germany finances the unification. The fund is consolidated with the German General Government, so the flows of this fund are registered as flows of General Government (e.g. taxes on the resources side, unrequited current transfers to the rest of the world on the uses side). As already mentioned in the introduction, the German data presented in this paper all refer to the 'old' Federal Republic.

In this paragraph a complete overview is given of the uses and resources of the consolidated sector General Government, ending in the net borrowing. The data are presented for Germany and The Netherlands for two years, 1987 and 1990.

The German data are linked with data from the Eurostat publications 'General Government Accounts and Statistics, 1980-1991' and 'National Accounts ESA, 1980-1991'. Their (provisional) data for 1990 refer to the 'old' FRG. The data for The Netherlands are linked with the publication 'National Accounts ESA, 1985-1992', published by Statistics Netherlands (CBS). These data refer to the final figures for the years 1987 and 1990 and are connected with the revised NA data in the CBS publication 'Nationale rekeningen 1992'. Table 1 shows the original Dutch and German data. The main current and capital transactions of the accounts of the

sector General Government are presented as a percentage of GDP. Table A of appendix I also shows the monetary values. The final consumption of General Government can easily be derived from these data by adding the first three items of the uses (in Table A of appendix I, the first four items) and subtracting the sales of goods and services produced.

Table 1.
Transactions of the sector General Government, The Netherlands and Germany in % of GDP, original data

	1987			1990		
	Neth. 1	Germ. 2	Diff. 1-2	Neth. 1	Germ. 2	Diff. 1-2
A. Resources						
Sales of g/s produced	2.7	3.0	-0.3	2.6	3.1	-0.5
Taxes linked to prod. and imp.	12.0	11.3	0.7	11.1	11.6	-0.5
Property and entrepr. income	4.7	1.3	3.4	4.1	1.4	2.7
Transfers 1)	36.6	30.9	5.7	34.4	29.1	5.3
Consumption of fixed capital	0.8	0.7	0.1	0.8	0.7	0.1
Total resources	56.8	47.2	9.6	53.0	45.9	7.1
B. Uses						
Intermediate consumption 2)	6.7	5.1	1.6	6.5	4.8	1.7
Consumption of fixed capital	0.8	0.7	0.1	0.8	0.7	0.1
Compensation of employees	11.1	10.6	0.5	9.8	9.8	0.0
Subsidies	2.9	1.7	1.2	2.0	1.6	0.4
Property and entrepr. income	6.4	2.9	3.5	6.0	2.6	3.4
Transfers	32.7	25.7	7.0	31.0	26.1	4.9
Gross capital formation 3)	2.1	2.4	-0.3	2.0	2.3	-0.3
Total uses	62.7	49.1	13.6	58.1	47.9	10.2
C. (B-A) Net borrowing	5.9	1.9	4.0	5.1	2.0	3.1

1) Transfers include accident insurance transactions, unrequited transfers n.e.c. and capital transfers
2) Intermediate consumption including taxes linked to production excluding VAT
3) Gross capital formation including net purchases of land and intangible assets

The main differences between The Netherlands and Germany occur in the transactions property and entrepreneurial income and transfers on the

resources side and intermediate consumption, subsidies, property and entrepreneurial income and transfers on the uses side. There are substantial differences for uses and resources alike in the transactions property and entrepreneurial income and transfers. The net borrowing of the sector General Government in The Netherlands is structurally higher than in Germany according to original data: 5.9% versus 1.9% in 1987 and 5.1% versus 2.0% in 1990.

3.2 Differences between The Netherlands and Germany

This case study focussed on a high level of aggregation, so only the main differences between The Netherlands and Germany in the sector Government were studied. No detailed overview of all differences between the two countries was intended.

Some major differences show up in the comparison of the Dutch and German General Government sectors in NA.

Non-compliance with international guidelines

The first difference concerns the sectoring of some Non-Profit Institutions (NPI's), which is due to a statistical imperfection in the NA of The Netherlands. According the international guidelines SNA and ESA, the sector General Government should include certain NPI's (see the definition above) such as subsidized private schools, libraries, museums etc. The NA of The Netherlands only has part of these NPI's in the sector General Government, namely the private schools subsidized by government. This is caused by the lack of information on the rest of this group of NPI's.

No significant differences in interpretation of the international guidelines between The Netherlands and Germany showed up. There is a very small difference in the borderline between the transactions indirect taxes and sales of goods and services. It concerns compulsory payments for inspection of meat, fish etc. which are registered as indirect taxes in The Netherlands and as sales in Germany.

Institutional differences

The first institutional difference between The Netherlands and Germany concerns financing old age pension schemes for civil servants. In Germany they are directly paid by the government (an unfunded scheme). In The Netherlands, however, the (supplementary) old age pension scheme for civil servants is carried out by a separate pension fund, by way of a capital coverage system. In the NA this fund is described in the Financial Corporations sector.

A second, completely different institutional difference may occur in the variant fiscal regulations of governments. For instance, in country A the government can give a social benefit to households, while in country B the government achieves the same material effect (for households) by reducing taxes. However, in the NA the amounts of the social benefits and tax income of the sector General Government are both higher in country A than in country B. Government expenditures in the form of reduction, exemption or postponement of tax payments are often called tax expenditures. It is not clear whether the differences in tax expenditures between The Netherlands and Germany actually lead to substantial differences in transactions. No data are available on the subject.

Differences in the taxes and social contributions charged on social benefits also belong to this category of variant fiscal regulations. In both countries, income tax and social premiums have to be paid by the beneficiaries out of social benefits. However, in The Netherlands the income tax and the social premiums out of social benefits are substantially higher than in Germany.

In principal all these differences between The Netherlands and Germany have to be considered for adjustment. However, for the differences caused by not complying with the international guidelines, only adjustments are made in the sectoring of the NPI's. These adjustments are discussed in section 3.3.1.

Because the differences in interpretation of the guidelines are of no quantitative importance, no adjustments are made.

In the institutional differences, adjustments are made for the registration of the pension scheme for civil servants. These are

discussed in section 3.3.2.

No adaptations are made for the tax expenditures because of the lack of information on this item. The difference in the taxation of social benefits is only tentatively calculated. The result of this calculation is discussed in section 3.4.2., where a comparison of the adjusted figures is made.

3.3 Adjustments in the original data

3.3.1 Adjustments for NPI's mainly financed by government

In SNA and ESA, the sector General Government encompasses NPI's that produce non-market services and are controlled and mainly financed by the government. In The Netherlands, however, only a part of these institutions, namely the private, subsidized schools, are registered as part of the sector General Government in the NA. Examples of 'missing' institutions are private subsidized libraries and museums. The transactions of these 'missing' institutions in the production process are registered in the Dutch NA under Non-Financial Corporations. The services are primarily delivered to households. In order to get a conceptually correct registration, the contributions from the government to these institutions are mainly registered as unrequited current transfers from the sector General Government to the Households sector.

However, this creates a difference between The Netherlands and Germany, as all these institutions are part of the Government in Germany. The Netherlands intends to harmonize its NA with the international guidelines in the near future, but for this paper adjustments are already made on the Dutch data, through rough estimates for the current and capital transactions of these NPI's. Table B in appendix I shows these data and also an overview of this group of NPI's. The financing principle criterion is used to delimit the group of institutions. That is, when the government structurally contributes more than 50% of the total income of an NPI, then the NPI is taken into account. In practice, of course, we do not deal with individual NPI's, only with groups.

Starting point for the estimates are the resources of the NPI: the contributions from the sector General Government and income out of sales and contributions from households. The contributions from the government and most of the sales from these NPI's to the government are derived from integrated NA data. The other income components are mainly derived from various CBS statistics, and for missing NPI's rough estimates are made. As said, these NPI's produce non-market services and their total costs are mainly financed out of contributions from Government. Since these institutions generally do not make profits, we put the net balancing item equal to zero. Furthermore, the gross capital formation of the NPI's is put on the level of the investment grants received from government. This assumes that these NPI's do not enter the capital market on their own behalf. As a consequence the interest flows are considered to be nil. Finally, the division of the production costs into compensation of employees and intermediate consumption is estimated on the basis of information derived from various CBS statistics.

The income and capital transfers from the sector General Government to the NPI's were consolidated. The adjustments on the original Dutch data concerning the consolidation of these NPI's are presented in Table 2 below.

The calculations on the transactions of the NPI's are very tentative. Therefore the results must be considered as indications.

3.3.2 Adjustments for differences in the organization and classification of the old age pension schemes for civil servants

In Germany most old age pensions for civil servants are directly paid by the government, without mediation of a separate pension fund with actuarial reserves (unfunded scheme). The pension expenditures are registered as compensation of employees of the sector General Government, as part of the item employers' imputed social contributions. Some civil servants have their old age pension scheme in a social security fund, as part of the consolidated sector General Government.

The Netherlands, however, distinguishes a basic and a supplementary pension scheme for civil servants. The basic scheme, the General Old Age Pension Act, is available to all residents. Its General Old Age Pension Fund is described in the consolidated sector General Government in the NA. There is a separate supplementary pension fund for civil servants, excluding military personnel, the General Civilian Pension Fund (GCPF). This fund provides supplementary pension benefits to the employees of government agencies. It has its own assets and liabilities and engages in financial transactions on its own account.

Table 2.
Transactions of the sector General Government in The Netherlands,
in % of GDP, adjustments on the original data

	1987				1990			
	Neth. orig. 1	NPIs 2	GCPF 3	Neth. adj. 1+2+3	Neth. orig. 1	NPIs 2	GCPF 3	Neth. adj. 1+2+3
A. Resources								
Sales of g/s prod.	2.7	1.1	0.0	3.8	2.6	0.8	0.0	3.4
Taxes on prod/imp.	12.0	0.0	0.0	12.0	11.1	0.0	0.0	11.1
Prop/entrepr. inc.	4.7	0.0	0.0	4.7	4.1	0.0	0.0	4.1
Transfers 1)	36.6	0.6	1.4	38.6	34.4	0.6	1.5	36.5
Cons. of fix. cap.	0.8	0.0	0.0	0.8	0.8	0.0	0.0	0.8
Total resources	56.8	1.7	1.4	59.9	53.0	1.4	1.5	55.9
B. Uses								
Interm. cons. 2)	6.7	1.5	0.0	8.2	6.5	1.4	0.0	7.9
Cons. of fix. cap.	0.8	0.0	0.0	0.8	0.8	0.0	0.0	0.8
Comp. of employees	11.1	2.0	0.5	13.6	9.8	1.7	0.9	12.4
Subsidies	2.9	0.0	0.0	2.9	2.0	0.0	0.0	2.0
Prop/entrepr. inc.	6.4	0.0	-2.0	4.4	6.0	0.0	-2.0	4.0
Transfers	32.7	-1.9	1.3	32.1	31.0	-1.8	1.4	30.6
Gross cap. form. 3)	2.1	0.1	0.0	2.2	2.0	0.1	0.0	2.1
Total uses	62.7	1.7	-0.2	64.2	58.1	1.4	0.3	59.8
C. (B-A) Net borrow.	5.9	0.0	-1.6	4.3	5.1	0.0	-1.2	3.9

- 1) Transfers include accident insurance transactions, unrequited transfers n.e.c. and capital transfers
- 2) Intermediate consumption including taxes linked to production excluding VAT
- 3) Gross capital formation including net purchases of land and intangible assets

According to the international guidelines, the GCPF is a separate, autonomous pension fund. In contrast with the pay-as-you-go system in the basic scheme, a capital coverage system is operational for the supplementary scheme. This means that every civil servant builds up an individual, guaranteed right to supplementary benefits. The fund has actuarial reserves. For this reason international guidelines would have it allocated to the Financial Corporations sector. Hence, all resources and uses of the GCPF are entered under these accounts and not under the sector General Government.

Table B of appendix I shows the resources and uses of the Dutch pension fund for civil servants (GCPF)¹.

The supplementary pension benefits for military personnel are directly paid by the government, just like the basic unfunded pension benefits for civil servants in Germany.

In order to get more comparable data for Germany and The Netherlands it is necessary to make adjustments for this difference in the registration of the old age pension schemes for civil servants. There are two options. The first option is to transform the pay-as-you-go pension systems for civil servants in both countries into a capital coverage system. The second option is the other way around, i.e. transformation of the capital coverage system of the supplementary pension system in The Netherlands into a pay-as-you-go system.

From an accounting point of view, the first option should be adopted because one party (i.e. the government) has a future obligation to the other party (i.e. the household). And, according to generally accepted accounting principles, this liability has to be expressed in the financial account and in the balance sheet. This is the case in a capital coverage system, while in a pay-as-you-go system no reservations are made to meet these liabilities. By transforming a pay-as-you-go system into a capital coverage system estimates have to be made for the net present

1. CBS, Sociale Verzekering, pensioenverzekering, levensverzekering 1987-1991, Den Haag, 1992, p.11; data on the compensation of employees, intermediate consumption, sales of goods and services produced and gross capital formation are derived from specified NA data.

value of the future obligations with respect to the pensions. These calculations are very demanding. Complicated methods are used and assumptions have to be made regarding future interest rates, wage levels, life time expectations etc.. Moreover, information is needed about the age structure of the civil servants. From a statistical point of view the second option is much easier. Bearing in mind the scope of this study, researching the **differences** between transactions rather than the **levels** of the transactions, the second option is also convenient for our purposes. Therefore, in this study we have adopted it and we will be transforming the capital coverage pension system in The Netherlands into a system of direct payments by the government and consolidating the GCPF with the sector General Government.

The consolidation gives rise to some problems with the registration of the various transactions. In the first place, the GCPF is the pension fund for all civil servants. This means that employees of quasi-corporations (e.g. government units on water supply, government units on public transport) are also insured by the GCPF. However, in the NA these quasi-corporations are not part of the sector General Government, according to the international guidelines. So, the employees are not employees of the sector General Government and the GCPF transactions for these employees should not be registered as transactions of the sector General Government. In the NA the breakdown of the two 'groups' of civil servants is only estimated for the transaction pension premiums. In 1987 the pension premiums in the quasi-corporations were about 22% of the total pension premiums paid to the GCPF; in 1990 this percentage was about 16%. The decline was mainly caused by the privatization of the Dutch PTT in 1989. A separate pension fund was founded for its employees who left the GCPF with the privatization. In this study the transactions of the GCPF are consolidated with the sector General Government as far as it concerns employees belonging to this sector. Therefore a proportional breakdown of the pension premiums is adopted for all transactions. So, in 1987 only 78% of the value of the transactions of the GCPF was consolidated, in 1990 84%.

There are also problems with the registration of the pension premiums

and benefits and how to deal with the property income of the GCPF. First we discuss the registration of the pension premiums and benefits. The pension premiums can be broken down into premiums payable by the employer and premiums payable by the employees. Premiums payable by the employer are registered as part of the compensation of employees. In Germany the pension benefits (directly) paid out are registered (following SNA and ESA) as imputed pension premiums payable by the employer and form part of the compensation of employees (there are no pension premiums payable by the employees).

For The Netherlands we have to make some recalculations. Under the GCPF system the employer and the employees pay pension premiums to the GCPF and the GCPF pays out the pension benefits.

First of all we have to eliminate the pension premiums payable by the employer under the GCPF system.

The next step is to impute a pension premium payable by the employer under a pay-as-you-go system. For the Dutch civil servants we may interpret the pension premiums payable by the employees under the GCPF system as equivalent of pension premiums payable by employees under a pay-as-you-go system. Also the pension benefits paid by the GCPF can be seen as equivalent for pension benefits to be paid under a pay-as-you-go system. So the imputed pension premiums payable by the employer might be calculated as the difference between the pension benefits and the pension premiums payable by the employees. Then, the adaptation on the compensation of employees of the sector Government is built up as follows:

- pension premiums payable by the employer under the GCPF system
- + pension benefits payable under the GCPF system
- pension premiums payable by the employees under the GCPF system

The last two items constitute the 'new' imputed social contributions, as part of the compensation of employees.

In the system of NA, the actually paid pension benefits are also registered as current income transfers from the sector General Government to the households, as part of the transaction social benefits linked to imputed social contributions. On the resources side, its counterpart, i.e. the imputed social contributions, is registered for the same amount.

Secondly, we have to deal with the registration of property income. In 1987 the GCPF's total property income was 11,3 milliard guilders, in 1990 12,2 milliard. About half received from the sector General Government, mainly as returns on the investments in State bonds. There are again two options for the consolidation of the GCPF with the sector General Government. Either only the property income flows between the GCPF and the government are consolidated. Or the property income of the GCPF from other sectors than government is also consolidated. Here the second option is adopted because the ownership of financial assets is not a function of government. In other words, if the General Government would have chosen for a pay-as-you-go system, they would not have had any financial assets at all. For reason of comparability of data between The Netherlands and Germany therefore all property income has to be consolidated.

Of course, with the consolidation of the GCPF, the operation costs and the gross capital formation of the GCPF are added to the sector General Government. Finally, the capital transfers from the government to the GCPF are also consolidated.

Table 2 also gives the adjustments for consolidating the GCPF concerning transactions for government employees.

3.4 Comparison of the adjusted Dutch and German data

3.4.1 A general overview

In the previous section two differences were explained between The Netherlands and Germany. Besides the Dutch NA data are adjusted to get more harmonized data (see Table 2).

In this section these adjusted Dutch data are compared with the German data. They are presented in table 3 below.

Table 3.
Transactions of the sector General Government, The Netherlands and Germany
in % of GDP, *adjusted data*

	1987			1990		
	Neth. adj.	Germ.	Diff.	Neth. adj.	Germ.	Diff.
A. Resources	1	2	1-2	1	2	1-2
Sales of g/s produced	3.8	3.0	0.8	3.4	3.1	0.3
Taxes linked to prod. and imp.	12.0	11.3	0.7	11.1	11.6	-0.5
Property and entrepr. income	4.7	1.3	3.4	4.1	1.4	2.7
Transfers 1)	38.6	30.9	7.7	36.5	29.1	7.4
Consumption of fixed capital	0.8	0.7	0.1	0.8	0.7	0.1
Total resources	59.9	47.2	12.7	55.9	45.9	10.0
B. Uses						
Intermediate consumption 2)	8.2	5.1	3.1	7.9	4.8	3.1
Consumption of fixed capital	0.8	0.7	0.1	0.8	0.7	0.1
Compensation of employees	13.6	10.6	3.0	12.4	9.8	2.6
Subsidies	2.9	1.7	1.2	2.0	1.6	0.4
Property and entrepr. income	4.4	2.9	1.5	4.0	2.6	1.4
Transfers	32.1	25.7	6.4	30.6	26.1	4.5
Gross capital formation 3)	2.2	2.4	-0.2	2.1	2.3	-0.2
Total uses	64.2	49.1	15.1	59.8	47.9	11.9
C. (B-A) Net borrowing	4.3	1.9	2.4	3.9	2.0	1.9
1) Transfers include accident insurance transactions, unrequited transfers n.e.c. and capital transfers						
2) Intermediate consumption including taxes linked to production excluding vat						
3) Gross capital formation including net purchases of land and intangible assets						

Table 3 shows that, after adjusting the original data for two main differences, both the total resources and the total uses (related to the GDP) are much higher in The Netherlands than in Germany in 1987 and 1990 (about 10% to 15% of GDP higher). However, in 1990 the differences

between the two countries are smaller than in 1987. The resulting net borrowing is higher too in The Netherlands, both in 1987 and 1990. Yet, the difference in this balancing item between the two countries also diminishes from 2.4% in 1987 to 1.9% in 1990.

The biggest structural differences between The Netherlands and Germany come to light in the transfers, both on the resources side (7.7% in 1987 and 7.4% in 1990) and uses side (6.4% in 1987 and 4.5% in 1990). There is a remarkable decline in these differences from 1987 to 1990, especially on the uses side.

Other substantial differences are registered in the received property and entrepreneurial income of the sector General Government (3.4% in 1987 and 2.7% in 1990).

Furthermore, as a result of the adjustments on the original Dutch data, the differences between The Netherlands and Germany in intermediate consumption and compensation of employees are now substantial. Both transactions are about 3% of GDP higher in The Netherlands than in Germany. For the same reason, the difference in the property income paid by government decreased to about 1.5% of GDP in both years.

In the next section some of the main transactions are more specified. In this way it is possible to analyze the differences on a lower level of transaction.

3.4.2 Differences observed

In this section the differences between the harmonized data of The Netherlands and Germany are further analyzed. For this purpose, the main transactions presented in Table 3 are subdivided in the underlying transactions.

Consumption of the sector General Government

First, the transactions which form the components of the consumption of the sector General Government as presented in Table 4 are analyzed. The table shows that the final consumption expenditures of the sector General

Government are higher in The Netherlands than in Germany (in 1987 5.4% of GDP higher, in 1990 5.5%).

Table 4.
Final consumption of the sector General Government
in % of GDP

	1987			1990		
	Neth. 1	Germ. 2	Diff. 1-2	Neth. 1	Germ. 2	Diff. 1-2
A. Production						
intermediate consumption	8.1	5.1	3.0	7.8	4.8	3.0
consumption of fixed capital	0.8	0.7	0.1	0.8	0.7	0.1
compensation of employees	13.6	10.6	3.0	12.4	9.8	2.6
taxes l. to prod.(ex. VAT)	0.1	0.0	0.1	0.1	0.0	0.1
Total production	22.6	16.4	6.2	21.1	15.3	5.8
B. Sales of g/s produced	3.8	3.0	0.8	3.4	3.1	0.3
C. (A-B) Final consumption	18.8	13.4	5.4	17.7	12.2	5.5

The higher final consumption expenditures in The Netherlands are mainly caused by higher intermediate consumption and compensation of employees. From 1987 to 1990 the difference in expenses on the compensation of employees diminishes, but remains positive. It seems that the General Government apparatus in The Netherlands is broader than in Germany. For that, let us first study the compensation of employees and the intermediate consumption in more detail.

The transaction compensation of employees can be broken down into the gross wages and salaries, the employers' actual social contributions and the imputed social contributions payable by employers. Table 5 shows that in 1987 the difference on the compensation of employees in The Netherlands is due to all the components of this transaction. In 1990 the situation has changed, as the difference on the gross wages and salaries grows, while the difference on the employers' actual social contributions becomes negative. The difference in the imputed social contributions

continues to be high.

Table 5.
Components of compensation of employees
in % of GDP

Uses	1987			1990		
	Neth. 1	Germ. 2	Diff. 1-2	Neth. 1	Germ. 2	Diff. 1-2
Compensation of employees	13.6	10.6	3.0	12.4	9.8	2.6
gross wages and salaries	9.4	8.5	0.9	9.3	7.8	1.5
employers' actual soc. contr.	1.4	0.9	0.5	0.2	0.9	-0.7
imputed social contributions	2.8	1.2	1.6	2.9	1.1	1.8

The above-mentioned development from 1987 to 1990 can partly be explained by the 1990 tax revision in The Netherlands (Oort tax law). Its most relevant change was the transfer of charges from employers to employees. In fact, some employers' actual social contributions are transferred partly in employees' social contributions and partly in income taxes. With this transfer of charges the employees received compensation for their additional contributions. This compensation is registered in the NA as a part of the gross wages and salaries.

The imputed social contributions differ most in the observed years. They are linked with social benefits to civil servants directly paid by government in its role as employer. The difference is mainly due to the fact that most of the social benefits paid by the Dutch General Government to civil servants (e.g. with respect to unemployment and illness) are directly paid, while German civil servants are (partly) insured for those risks through social security institutions. Of course the actual premiums paid by their employer are registered as employers' actual social contributions, also a part of the compensation of employees.

Differences in the monetary value of the compensation of employees can also be caused by differences in average wage levels between the two

countries. Therefore, labour force data have to be taken into account. Civil servants in Germany constitute about 15.6% in 1987 and 15.1% in 1990 of the work force, and about 18.8% and 18.0% in The Netherlands in these years². These data confirm that the General Government apparatus in The Netherlands is broader than in Germany.

It is also interesting to relate the expenditures on the compensation of employees of General Government to the total expenditures of General Government. In appendix II the compensation of employees of General Government of different EC countries is given in % of the total expenditures of General Government in 1990. The compensation of employees of General Government is about 22% of the total expenditures in The Netherlands and about 21% in Germany. In the other EC countries only the part of the compensation of employees of Belgium is as low as in The Netherlands (22%). All other countries do have higher parts, Denmark and the United Kingdom have obviously the highest (resp. 32% and 30%)³.

In appendix II the intermediate consumption of General Government of different EC countries is also related to the total expenditures of General Government in 1990. It turns out that this ratio is about 15% in The Netherlands and about 11% in Germany. Compared to the other EC countries The Netherlands has relatively high expenditures on intermediate consumption in 1990, only the United Kingdom takes a bigger part (22%).

The tables in appendix II confirm that the General Government apparatus in The Netherlands is more expensive than in Germany.

2. The calculation is made by using data about the German labour force registered in jobs, and Dutch labour forces registered in full-time equivalents, so the percentages have to be considered as indications. The data refer to the Dutch labour forces in the adjusted sector General Government. The GCFP and the NPI of the Dutch labour force are estimated.

Statistisches Bundesamt, Volkswirtschaftliche Gesamtrechnungen, Fachserie 18, Reihe 1.3, Konten und Standardtabellen 1991, Hauptbericht, Wiesbaden, 1992, p.299
CBS, Nationale Rekeningen 1992, Voorburg/Heerlen, 1993

3. Eurostat, General Government accounts and statistics 1980-1991, Luxemburg, 1993

Subsidies and taxes linked to production and imports

For both transactions, subsidies and taxes linked to production and imports, the differences between The Netherlands and Germany decreased from 1987 to 1990. The difference in income out of taxes even became negative in 1990. Possibly this is due to the German unification in 1990.

Table 3 shows a decline in the difference in subsidies between The Netherlands and Germany from 1987 to 1990 from 1.2% to 0.4% of GDP. This is mainly caused by the decrease of the EC subsidies for agriculture in The Netherlands. In 1987 those subsidies amounted to 2.0% of GDP; in 1990 this was only 0.8%.

The property and entrepreneurial income of the Government

The property and entrepreneurial income on the resources side can be broken down in the transactions actual interest, income from land and intangible assets, dividends and withdrawals from quasi-corporations.

In Table 6 details of the main transaction property and entrepreneurial income are presented.

Table 6.
Property and entrepreneurial income, in % of GDP

	1987			1990		
	Neth. 1	Germ. 2	Diff. 1-2	Neth. 1	Germ. 2	Diff. 1-2
Resources						
Actual interest	1.5	0.4	1.1	1.6	0.5	1.1
Income from land and assets	1.4	0.1	1.3	1.1	0.1	1.0
Dividends and withdrawals	1.8	0.8	1.0	1.4	0.8	0.6
Uses						
Actual interest	4.4	2.9	1.5	4.0	2.6	1.4

The actual interest received by government is about 1% higher in The Netherlands than in Germany, the interest paid about 1.5%. The interest

received concerns the interest on loans provided by government. In The Netherlands it refers for example to loans on private social dwelling institutions. The extent to which the government provides loans in a country however is merely a matter of government policy. Therefore in the scope of this study, it is convenient to take into account the net balance of the interest flows. This balancing item is only about 0.4% higher in The Netherlands than in Germany.

The transactions income from land and assets and dividends and withdrawals together form a bigger part of the GDP in the Netherlands than in Germany, about 2.3% of GDP more in 1987 and about 1.6% in 1990. The General Governments' income from intangible assets and from dividends is relatively high in the Netherlands, mainly because of the receipts from the Nederlandse Aardolie Maatschappij (NAM), the Dutch State Mines (DSM), Energie Beheer Nederland (EBN) and some other oil companies. These are receipts of dividends and concession rights on the exploration of gas within Dutch territory, amounting to an income of 1.5% of GDP in 1987 and 1.1% in 1990.

Transfers

The transfers can be subdivided into current income transfers and capital transfers. These transactions are presented in Table 7 where the current income transfers are further specified.

On the resources side the current income transfers can be broken down into the transactions taxes on income and wealth, social contributions and other current transfers. On the uses side the current income transfers are subdivided into the social benefits and the other current transfers.

Table 7 shows that the transfers are substantially higher in The Netherlands than in Germany, the resources as well as the uses. The difference in the received transfers is lower in 1990 than in 1987 (from 7.7% of GDP to 7.4%), while the discrepancy in the paid transfers got even smaller (from 6.4% of GDP to 4.5%). As a result, the difference in

the net transfers received, in 1987 only 1.3% of GDP, grew to 2.9% in 1990.

Table 7.
Transfers, in % of GDP

	1987			1990		
	Neth. 1	Germ. 2	Diff. 1-2	Neth. 1	Germ. 2	Diff. 1-2
A. Resources						
Current income transfers	38.3	30.6	7.7	36.2	28.8	7.4
current taxes on income	14.2	12.4	1.8	15.6	11.2	4.4
social contributions	23.2	17.6	5.6	19.7	17.0	2.7
other current transfers	0.9	0.6	0.3	0.9	0.6	0.3
Capital transfers	0.3	0.3	0.0	0.3	0.3	0.0
Total transfers received	38.6	30.9	7.7	36.5	29.1	7.4
B. Uses						
Current income transfers	29.0	24.2	4.8	29.0	24.7	4.3
social benefits	27.1	23.0	4.1	27.2	21.6	5.6
other current transfers	1.9	1.2	0.7	1.8	3.1	-1.3
Capital transfers	3.1	1.5	1.6	1.6	1.4	0.2
Total transfers paid	32.1	25.7	6.4	30.6	26.1	4.5
C. (A-B) Net transfers received	6.5	5.2	1.3	5.9	3.0	2.9

The current income transfers

It turns out that in 1987 the resources of **current taxes on income and wealth** together with the **social contributions** were 37.4% of GDP in The Netherlands, 7.4% of GDP more than in Germany (in 1990 the difference was 7.1%). At the same time, the 1987 payments of **social benefits** in The Netherlands were 4.1% of GDP more than in Germany (in 1990: 5.6%). As mentioned in section 3.2, income tax and social premiums in both countries have to be paid by the beneficiaries out of social benefits. However, in The Netherlands the taxes and social contributions payable on benefits are substantially higher than in Germany. In Germany

more benefits are paid out net, and taxes on pension benefits are relatively low. For other benefits there are either tax exemptions or certain rules which make that only few beneficiaries have to pay taxes⁴.

Much of the difference between The Netherlands and Germany in social benefits can be explained by this phenomenon. The percentage of income taxes plus social security contributions payable on social benefits in The Netherlands amounted to 4.9% of GDP in 1987. In 1990 this percentage was 5.5%. These calculations are reviewed in Appendix III. In Germany the contributions are estimated on 1.7% of GDP in both years⁵.

The difference in taxation on social benefits between The Netherlands and Germany can be adjusted by a registration of net benefits instead of gross benefits. However, when the income tax and social contributions payable on social benefits are subtracted from these benefits, then an adjustment can be made for the same amount in the resources of the government. This is because less benefits have to be financed. In general, social benefits are financed out of social contributions (as far as it concerns social benefits linked to actual social contributions) and out of taxes (as far as it concerns social benefits linked to imputed social contributions and social assistance benefits). Therefore, in the scope of this study the sum of taxes and social contributions are adjusted with the same percentage as the social benefits.

Table 8 below summarizes these aspects. The taxes and social contributions are shown before and after the adjustment for taxation on

4. Ministry of Social Affairs and Employment, The Netherlands, Social security and taxes, Den Haag, 1994 and Financiële nota sociale zekerheid 1989, Den Haag, 1988, pag. 112

5. from: Dr. Essig, Strohm: "Volkswirtschaftliche Gesamtrechnungen 1991, Vorläufiges Ergebnis", in: Statistisches Bundesamt, Wirtschaft und Statistik, Heft 3, Wiesbaden, 1992 and Statistisches Bundesamt, Volkswirtschaftliche Gesamtrechnungen, Fachserie 18, Reihe 1.3 Konten und Standardtabellen 1991, Hauptbericht, Wiesbaden, 1992, p. 297.

In the context of Essig's study the social benefits refer to social benefits in cash paid to Households. In the scope of our study only social benefits paid by the sector General Government are taken into consideration. Therefore it is assumed that taxes and contributions payable on social benefits paid by non-government institutions (e.g. non-financial corporations) are relatively as high as those paid on benefits from General Government.

social benefits. As a result of this adjustment the differences in taxes and social contributions between The Netherlands and Germany diminish from 8.1% to 4.9% of GDP in 1987; and from 6.6% to 2.8% in 1990.

As Table 8 shows, the resulting net social benefits only differ 0.9% in 1987 and 1.8% in 1990.

An additional explanation for the higher level of social contributions and social benefits in The Netherlands is financing of sickness benefits. When an employee is ill, the employer in Germany has to pay wages for the first six weeks. After that social security steps in. In The Netherlands, however, social security operates from day one. In The Netherlands the benefits from the government as well as the premiums paid to the government are higher.

Table 8.
Taxes, social contributions and social benefits
in % of GDP, adjustments for taxation on benefits

	1987			1990		
	Neth. 1	Germ. 2	Diff. 1-2	Neth. 1	Germ. 2	Diff. 1-2
Resources						
taxes linked to prod. and imp.	12.0	11.3	0.7	11.1	11.6	-0.5
taxes on income and wealth	14.2	12.4	1.8	15.6	11.2	4.4
social contributions	23.2	17.6	5.6	19.7	17.0	2.7
A. Total taxes and contributions	49.4	41.3	8.1	46.4	39.8	6.6
B. Taxation on benefits	4.9	1.7	3.2	5.5	1.7	3.8
C. (A-B) Adjusted taxes/contr.	44.5	39.6	4.9	40.9	38.1	2.8
Uses						
A. Social benefits	27.1	23.0	4.1	27.2	21.6	5.6
B. Taxation on benefits	4.9	1.7	3.2	5.5	1.7	3.8
C. (A-B) Adjusted benefits	22.2	21.3	0.9	21.7	19.9	1.8

Besides, there is an interesting development in the differences in

taxes on income and social contributions from 1987 to 1990. Table 8 shows that the difference in taxes on income increased from 1.8% in 1987 to 4.4% in 1990. At the same time the difference in social contributions decreased from 5.6% in 1987 to 2.7% in 1990. This is mainly due to the 1990 revision of the tax system in The Netherlands (Oort tax law). The most relevant change lies with the transfer of charges from employers to employees. As described before, some employers' social contributions are transferred partly in contributions payable by employees and partly in income taxes.

The difference in **the other current transfers paid** between The Netherlands and Germany is negative in 1990 (-1.3% of GDP) in contrast to 1987 (0.7% of GDP). This can be explained by the German unification in 1990. In the West-German NA, the 'old' GDR was considered as part of the Rest of the World and transfers to the GDR were registered in the transaction other current transfers with respect to current international cooperation.

Capital transfers

Table 7 above shows a difference in the capital transfers paid of 1.6% in 1987, which decreases to 0.2% in 1990. This development is mainly due to decreasing investment grants in The Netherlands from 1987 to 1990 caused by the abolition of the Dutch Investment Account Act. Expenditures related to this Act were about 2.0% of GDP in 1987. By 1990 they had diminished significantly (to 0.4 % of GDP).

4. Summary

In this paper a first step is made to answer the question whether data of the sector General Government in the National Accounts are appropriate for international comparison. As the data in the National Accounts of the EC countries are compiled according to the internationally accepted rules of the European System of Integrated Accounts (ESA), they can be used as a starting point for international comparison. Nevertheless, there can be differences between countries that give rise to statistical incomparability. We suggest that such differences should be eliminated in an additional module in the system of National Accounts to get meaningful comparability.

In this study two main categories of differences between countries are distinguished: differences due to lack of compliance with the international guidelines, and institutional differences. We propose adjustments when differences between the countries lead to different amounts of economic transactions of the sector General Government, while the actual government activity does not lead to differences in a material sense for other actors.

Such a module was worked out for two EC countries, Germany and The Netherlands, observing the current and capital flows of the sector General Government for the years 1987 and 1990.

Adjustments were made for two major differences between the two countries. In the first category of differences, the discrepancy in the sectoring of some Non-Profit Institutions is eliminated. Contrary to the international guidelines, some Non-Profit Institutions in The Netherlands mainly financed by General Government are not (yet) part of the sector General Government. So this sector is adjusted by consolidating the uses and resources of these institutions.

The second category of differences yields the financing of the old age pension schemes for civil servants. The Netherlands has a capital

coverage system for supplementary pension benefits for civil servants and a separate pension fund to handle it. In the National Accounts this fund is recorded in the Financial Corporations sector.

In Germany, however, the old age pension benefits are paid directly by the government without a separate pension fund (an unfunded scheme). In the German National Accounts the directly paid benefits are registered as part of the transaction compensation of employees of the sector General Government. In order to eliminate this difference, the pension fund for civil servants in The Netherlands is consolidated in this study with the sector General Government.

After adjustment of the Dutch data for the two main differences, some conclusions can be made with respect to the transactions of the sector General Government of The Netherlands and Germany.

Result for both countries in the sector General Government is a net borrowing in the observed years. In percentage of GDP the net borrowing in the Netherlands was 4.3% in 1987 and 3.9% in 1990; in Germany 1.9% in 1987 and 2.0% in 1990. So the difference in the net borrowing between The Netherlands and Germany diminished from 2.4% in 1987 to 1.9% in 1990.

There are striking differences between both countries in total resources as well as in the total uses of the General Government: in The Netherlands these are substantially higher. As percentage of GDP the difference in total resources amounted to 12.7% in 1987 and 10.0% in 1990. The difference in total uses between the two countries was 15.1% in 1987 and 11.9% in 1990.

The final consumption expenditures of the sector General Government were in 1987 5.4% of GDP higher in The Netherlands than in Germany, in 1990 this was 5.5%. This is mainly due to the relatively big difference in the compensation of employees between The Netherlands and Germany, which took about 3.0% of GDP in 1987 and 2.6% in 1990. The intermediate consumption of the Dutch government turned out to be 3.0% of GDP higher as well in the observed years. So it appears that the Dutch General Government apparatus is broader than

its German counterpart. This is confirmed by the fact that the labour force of the sector General Government in The Netherlands is higher than in Germany in those years. Besides, the compensation of employees and the intermediate consumption are a bigger part of the total government expenditures in The Netherlands than in Germany.

It is shown that the differences between The Netherlands and Germany on the taxes and social contributions (8.1% of GDP in 1987 and 6.6% of GDP in 1990) and the social benefits (4.1% of GDP in 1987 and 5.6% of GDP in 1990) turn out to be high.

It is not clear whether differences in the so-called tax expenditures actually led to differences in these transactions between The Netherlands and Germany. No data are available on this subject.

However, another difference in the tax systems between The Netherlands and Germany had a great influence on those transactions. It concerns a difference in the taxes and social contributions charged on social benefits. In both countries income tax and social contributions have to be paid by the beneficiaries out of (some) social benefits. However, in The Netherlands these taxes and social contributions are substantially higher than in Germany. As further research is required, the calculations made in the present study are tentative and have to be interpreted as indications. When the social benefits and contributions have been adjusted for the differences in the extent of taxes and social security contributions charged on social benefits, the differences in these transactions decline with 3.2% in 1987 and 3.8% in 1990.

References

- CBS, Maandbericht Gezondheidsstatistieken, Den Haag, 1989
- CBS, Maandbericht Gezondheidsstatistieken, Den Haag, 1992
- CBS, National Accounts ESA, 1980-1991, Voorburg/Heerlen, 1993
- CBS, Nationale Rekeningen 1992, Voorburg/Heerlen, 1993
- CBS, Sociaal culturele berichten 1987, Den Haag, 1990
- CBS, Sociaal culturele berichten 1992, Voorburg/Heerlen, 1992
- CBS, Sociaal-economische maandstatistiek november 1993, Den Haag, 1993
- CBS, Sociale Verzekering, pensioenverzekering, levensverzekering 1987-1991, Den Haag, 1992
- CBS, Speur en ontwikkelingswerk in Nederland 1987, Den Haag, 1989
- CBS, Speur en ontwikkelingswerk in Nederland 1990, Voorburg/Heerlen, 1992
- CBS, Statistiek inkomsten en uitgaven van de overheid voor cultuur, recreatie en maatschappelijk welzijn 1987 en 1989, Voorburg/Heerlen, 1992
- CBS, Statistiek van de bejaardenoorden 1987, Den Haag, 1990
- CBS, Statistiek van de bejaardenoorden 1989 en 1990, Den Haag, 1992
- Essig, Strohm, "Volkswirtschaftliche Gesamtrechnungen 1991, Vorläufiges Ergebnis", in: Statistisches Bundesamt, Wirtschaft und Statistik, Heft 3, Wiesbaden, 1992
- Eurostat, European system of integrated economic accounts ESA, second edition 1979, Luxemburg, 1980
- Eurostat, General Government accounts and statistics 1980-1991, Luxemburg, 1993
- Eurostat, National Accounts ESA, 1980-1991, Luxemburg, 1993
- Ministerie van Sociale Zaken en Werkgelegenheid, Financiële nota sociale zekerheid 1989, Den Haag, 1988
- Ministerie van Sociale Zaken en Werkgelegenheid, Sociale Nota 1994, Den Haag, 1993
- Ministry of Social Affairs and Employment, The Netherlands, Social security and taxes, Den Haag, 1994
- Statistisches Bundesamt, Volkswirtschaftliche Gesamtrechnungen, Fachserie 18, Reihe 1.3, Konten und Standardtabellen 1991, Hauptbericht, Wiesbaden, 1992
- R.E.J. van der Werf, "Taxes and social security contributions related to benefits", Voorburg, 1992, CBS BPA nr. 440-92-S7/Extern

Appendix I

TABLE A
RESOURCES AND USES OF GENERAL GOVERNMENT, THE NETHERLANDS AND GERMANY, 1987, 1990, IN MLN GLD, MLN DM
ORIGINAL DATA

RESOURCES	ESA code	1987				1990			
		Neth.	Germ.	Neth. % OF GDP	Germ. % OF GDP	Neth.	Germ.	Neth. % OF GDP	Germ. % OF GDP
SALES OF GOODS AND SERVICES PRODUCED		12060	60780	2.7	3.0	13320	74960	2.6	3.1
TAXES LINKED TO PRODUCTION AND IMPORTS	R20	52920	225300	12.0	11.3	57450	279650	11.1	11.6
PROPERTY AND ENTREPRENEURIAL INCOME	R40	20460	26040	4.7	1.3	21120	33670	4.1	1.4
ACCIDENT INSURANCE TRANSACTIONS	R50	100	1470	0.0	0.1	90	1580	0.0	0.1
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	159600	606420	36.3	30.5	176050	665410	34.1	28.7
CAPITAL TRANSFERS	R70	1430	6350	0.3	0.3	1550	7710	0.3	0.3
CONSUMPTION OF FIXED CAPITAL	A1	3400	14070	0.8	0.7	3910	16630	0.8	0.7
TOTAL RESOURCES		249970	940430	56.8	47.2	273490	1109610	53.0	45.9
USES									
INTERMEDIATE CONSUMPTION	P20	29070	101780	6.6	5.1	33120	117410	6.4	4.8
CONSUMPTION OF FIXED CAPITAL	A1	3400	14070	0.8	0.7	3910	16630	0.8	0.7
COMPENSATION OF EMPLOYEES	R10	48900	211500	11.1	10.6	50580	236320	9.8	9.8
TAXES LINKED TO PRODUCTION EXCLUDING VAT	R22	470	250	0.1	0.0	510	250	0.1	0.0
SUBSIDIES	R30	12820	33930	2.9	1.7	10190	38130	2.0	1.6
PROPERTY AND ENTREPRENEURIAL INCOME	R40	28170	56780	6.4	2.9	30880	62560	6.0	2.6
ACCIDENT INSURANCE TRANSACTIONS	R50	100	260	0.0	0.0	90	320	0.0	0.0
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	129710	481390	29.4	24.2	150990	598060	29.2	24.7
GROSS CAPITAL FORMATION	P40	11480	46000	2.6	2.3	13700	54510	2.6	2.2
NET PURCHASES OF LAND AND INTANGIBLE ASSETS	P70	-2370	1990	-0.5	0.1	-3220	1520	-0.6	0.1
CAPITAL TRANSFERS	R70	14320	30320	3.3	1.5	9140	33330	1.8	1.4
TOTAL USES		276070	978270	62.7	49.1	299890	1159040	58.1	47.9
GDP (at market prices)	N1	440580	1990480	100.0	100.0	516270	2417800	100.0	100.0
NET LENDING (+) OR NET BORROWING (-)	N5	-26100	-37840	-5.9	-1.9	-26400	-49430	-5.1	-2.0

Sources:

For data on The Netherlands: Netherlands Central Bureau of Statistics, National accounts (ESA) 1985-1992, Voorburg/Heerlen, 1993

For data on Germany: Eurostat, General Government Accounts and Statistics, 1980-1991, Luxemburg, 1993 and Eurostat, National Accounts ESA, 1980-1991, Luxemburg, 1993

TABLE B
RESOURCES AND USES OF NON PROFIT INSTITUTIONS MAINLY FINANCED BY GOVERNMENT (NPI'S) 1)
AND THE GENERAL CIVILIAN PENSION FUND (GCPF), THE NETHERLANDS, 1987, 1990, IN MLN GLD

RESOURCES	ESA code	1987		1990	
		NPI'S	GCPF	NPI'S	GCPF
SALES OF GOODS AND SERVICES PRODUCED		4700	110	4300	90
TAXES LINKED TO PRODUCTION AND IMPORTS	R20	0	0	0	0
PROPERTY AND ENTREPRENEURIAL INCOME	R40	0	11340	0	12180
ACCIDENT INSURANCE TRANSACTIONS	R50	0	0	0	0
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	10700	0	11600	0
CAPITAL TRANSFERS	R70	500	280	600	270
ACTUAL PENSION PREMIUMS 2)		0	5450	0	3950
CONSUMPTION OF FIXED CAPITAL	A1	0	20	0	10
TOTAL RESOURCES		15900	17200	16500	16500
USES					
INTERMEDIATE CONSUMPTION	P20	6500	130	7000	130
CONSUMPTION OF FIXED CAPITAL	A1	0	20	0	10
COMPENSATION OF EMPLOYEES	R10	8900	250	8900	270
TAXES LINKED TO PRODUCTION EXCLUDING VAT	R22	0	0	0	0
SUBSIDIES	R30	0	0	0	0
PROPERTY AND ENTREPRENEURIAL INCOME	R40	0	0	0	0
ACCIDENT INSURANCE TRANSACTIONS	R50	0	0	0	0
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	0	0	0	0
GROSS CAPITAL FORMATION	P40	500	20	600	30
NET PURCHASES OF LAND AND INTANGIBLE ASSET	P70	0	0	0	0
CAPITAL TRANSFERS	R70	0	0	0	0
PENSION BENEFITS 2)		0	7860	0	8910
TOTAL USES		15900	8280	16500	9350
NET LENDING (+) OR NET BORROWING (-)	N5	0	8920	0	7150

1) THIS GROUP OF NPI'S CONSISTS OF E.G. INSTITUTIONS FOR AMBULATORY MENTAL HEALTH CARE, CROSS ORGANIZATIONS, MUSEUMS, LIBRARIES, RESEARCH INSTITUTIONS MAINLY FINANCED BY GOVERNMENT, HOMES OF THE AGED

2) IN THE NA OF THE NETHERLANDS THE PENSION PREMIUMS AND BENEFITS ARE REGISTERED AS FINANCIAL TRANSACTIONS, AS PART OF THE SECTOR INSURANCE COMPANIES AND PENSION FUNDS

TABLE C
RESOURCES AND USES OF GENERAL GOVERNMENT, THE NETHERLANDS AND GERMANY, 1987, 1990, IN MLN GLD, MLN DM
ADJUSTED DUTCH DATA

RESOURCES	ESA code	1987				1990			
		Neth. adj.	Germ.	Neth. % OF GDP	Germ. % OF GDP	Neth. adj.	Germ.	Neth. % OF GDP	Germ. % OF GDP
SALES OF GOODS AND SERVICES PRODUCED		16840	60780	3.8	3.0	17690	74960	3.4	3.1
TAXES LINKED TO PRODUCTION AND IMPORTS	R20	52920	225300	12.0	11.3	57450	279650	11.1	11.6
PROPERTY AND ENTREPRENEURIAL INCOME	R40	20460	26040	4.7	1.3	21120	33670	4.1	1.4
ACCIDENT INSURANCE TRANSACTIONS	R50	100	1470	0.0	0.1	90	1580	0.0	0.1
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	168510	606420	38.3	30.5	186340	695410	36.2	28.7
CAPITAL TRANSFERS	R70	1430	6350	0.3	0.3	1550	7710	0.3	0.3
CONSUMPTION OF FIXED CAPITAL	A1	3420	14070	0.8	0.7	3920	16630	0.8	0.7
TOTAL RESOURCES		263680	940430	59.9	47.2	288160	1109610	55.9	45.9
USES									
INTERMEDIATE CONSUMPTION	P20	35670	101780	8.1	5.1	40230	117410	7.8	4.8
CONSUMPTION OF FIXED CAPITAL	A1	3420	14070	0.8	0.7	3920	16630	0.8	0.7
COMPENSATION OF EMPLOYEES	R10	59860	211500	13.6	10.6	63870	236320	12.4	9.8
TAXES LINKED TO PRODUCTION EXCLUDING VAT	R22	470	250	0.1	0.0	510	250	0.1	0.0
SUBSIDIES	R30	12820	33930	2.9	1.7	10190	38130	2.0	1.6
PROPERTY AND ENTREPRENEURIAL INCOME	R40	19320	56780	4.4	2.9	20640	62560	4.0	2.6
ACCIDENT INSURANCE TRANSACTIONS	R50	100	260	0.0	0.0	90	320	0.0	0.0
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	127920	481390	29.0	24.2	149670	598060	29.0	24.7
GROSS CAPITAL FORMATION	P40	12000	46000	2.7	2.3	14530	54510	2.7	2.2
NET PURCHASES OF LAND AND INTANGIBLE ASSETS	P70	-2370	1990	-0.5	0.1	-3220	1520	-0.6	0.1
CAPITAL TRANSFERS	R70	13600	30320	3.1	1.5	8110	33330	1.6	1.4
TOTAL USES		282810	978270	64.2	49.1	308540	1159040	59.8	47.9
GDP (at market prices)	N1	440580	1990480	100.0	100.0	516270	2417600	100.0	100.0
NET LENDING (+) OR NET BORROWING (-)	N5	-19130	-37840	-4.3	-1.9	-20380	-49430	-3.9	-2.0

Appendix II

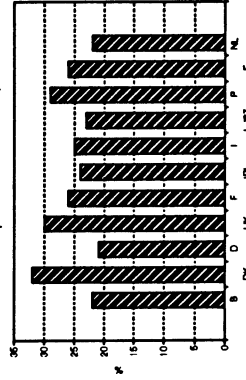
Compensation of employees General Government in % of total expenditure General Government in different EC-countries, 1990

	B	DK	D	F	I	L '87	P	E	NL		
	BELGIUM	DENMARK	GERMANY	UN.KINGDOM	FRANCE	IRELAND	ITALY	LUXEMBURG	PORTUGAL	SPAIN	NETH.
	mio bfr	mio dkr	mio dm	mio uki	mio ff	mio iri	mio lit	mio lfr	mrd esc	mrd pes	mio gld
Total expenditure 1)	3313327	465197	1114630	225483	3266.6	11052.1	656525	117701	3762.7	21319.2	290228
Total comp.employes	723633	146755	236320	66483	863.6	2875.3	166851	27572	1092	5565.6	63870
Tot.comp.empl./tot.exp.*100	22	32	21	30	26	24	25	23	29	26	22

1) Total expenditure is defined as total uses minus consumption of fixed capital and imputed social contributions.

Compensation of employees Gen.Gov. in

% of total expenditure Gen.Gov., 1990



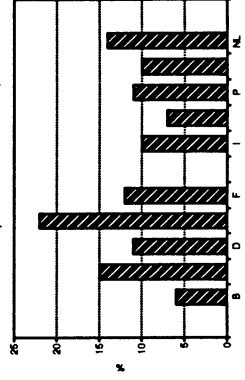
Intermediate consumption of General Government in % of total expenditure of General Government in different EC-countries, 1990

	B	DK	D	F	I	L '87	P	E	NL		
	BELGIUM	DENMARK	GERMANY	UN.KINGDOM	FRANCE	IRELAND	ITALY	LUXEMBURG	PORTUGAL	SPAIN	NETH.
	mio bfr	mio dkr	mio dm	mio uki	mrd ff	mio iri	mrd lit	mio lfr	mrd esc	mrd pes	mio gld
Total expenditure 1)	3313327	465197	1114630	225483	3266.6	11052.1	656525	117701	3762.7	21319.2	290228
Intermediate cons.	196530	68767	117410	48597	404.1	7	63696	8265	418.7	2136	40230
Tot.int.cons./tot.exp.*100	6	15	11	22	12	0	10	7	11	10	14

1) Total expenditure is defined as total uses minus consumption of fixed capital and imputed social contributions.

Intermediate consumption of Gen.Gov. in

% of total expenditure Gen.Gov., 1990



Appendix III

For 1987 the presented figures for The Netherlands on the taxes and social security contributions payable on social benefits are based on a study, carried out by Statistics Netherlands. In this study these calculations have been made up for the years 1985 to 1989. The results of the study have been presented in the paper 'Taxes and social security contributions related to benefits', by R.E.J. van der Werf, BPA nr.: 440-92-S7/Extern, Voorburg, 9 January 1992.

The taxes and social contributions related to benefits for 1990 are calculated in connection with the calculated figures in the study for 1989. However, as a result of a revision of the tax system in The Netherlands in 1990 (Oort tax law), the amount of taxes and social contributions payable on benefits is strongly increased from 1989 to 1990. In behalf of this study, the additional charges on benefits caused by the Oort tax law have been estimated.

Therefore, in the first place for both years, 1989 and 1990, all taxable benefits paid by government are selected. These benefits are broken down in groups of similar type of benefits, e.g. labour disablement benefits, old age benefits, unemployment benefits etc.. For every group, the gross benefits in 1989 are multiplied by a factor corresponding to the net income development and a factor for the growth in volume. The resulting differences between the actual gross benefits in 1990 and the above mentioned calculations can be considered as (rough) estimates of the additional charges on the benefits caused by the Oort tax law.

Then, the total taxes and social contributions related to benefits for 1990 are calculated as:

$$TS_{1990} = (1 + m) \times TS_{1989} + AC_{1990}$$

with

TS:= taxes and social contributions payable on benefits

m:= weighted average factor for net income development and growth
in volume from 1989 to 1990

AC:= additional charges on benefits caused by the Oort tax law

Statistics Netherlands
National Accounts Occasional Papers

- NA/01 Flexibility in the system of National Accounts**, Van Eck, R., C.N. Gorter and H.K. van Tuinen (1983).
This paper sets out some of the main ideas of what gradually developed into the Dutch view on the fourth revision of the SNA. In particular it focuses on the validity and even desirability of the inclusion of a number of carefully chosen alternative definitions in the "Blue Book", and the organization of a flexible system starting from a core that is easier to understand than the 1968 SNA.
- NA/02 The unobserved economy and the National Accounts in the Netherlands, a sensitivity analysis**, Broesterhuizen, G.A.A.M. (1983).
This paper studies the influence of fraud on macro-economic statistics, especially GDP. The term "fraud" is used as meaning unreporting or underreporting income (e.g. to the tax authorities). The conclusion of the analysis of growth figures is that a bias in the growth of GDP of more than 0.5% is very unlikely.
- NA/03 Secondary activities and the National Accounts: Aspects of the Dutch measurement practice and its effects on the unofficial economy**, Van Eck, R. (1985).
In the process of estimating national product and other variables in the National Accounts a number of methods is used to obtain initial estimates for each economic activity. These methods are described and for each method various possibilities for distortion are considered.
- NA/04 Comparability of input-output tables in time**, Al, P.G. and G.A.A.M. Broesterhuizen (1985).
It is argued that the comparability in time of statistics, and input-output tables in particular, can be filled in in various ways. The way in which it is filled depends on the structure and object of the statistics concerned. In this respect it is important to differentiate between coordinated input-output tables, in which groups of units (industries) are divided into rows and columns, and analytical input-output tables, in which the rows and columns refer to homogeneous activities.
- NA/05 The use of chain indices for deflating the National Accounts**, Al, P.G., B.M. Balk, S. de Boer and G.P. den Bakker (1985).
This paper is devoted to the problem of deflating National Accounts and input-output tables. This problem is approached from the theoretical as well as from the practical side. Although the theoretical argument favors the use of chained Vartia-I indices, the current practice of compiling National Accounts restricts to using chained Paasche and Laspeyres indices. Various possible objections to the use of chained indices are discussed and rejected.
- NA/06 Revision of the system of National Accounts: the case for flexibility**, Van Bochove, C.A. and H.K. van Tuinen (1985).
It is argued that the structure of the SNA should be made more flexible. This can be achieved by means of a system of a general purpose core supplemented with special modules. This core is a fully fledged, detailed system of National Accounts with a greater institutional content than the present SNA and a more elaborate description of the economy at the meso-level. The modules are more analytic and reflect special purposes and specific theoretical views.
- NA/07 Integration of input-output tables and sector accounts; a possible solution**, Van den Bos, C. (1985).
The establishment-enterprise problem is tackled by taking the institutional sectors to which the establishments belong into account during the construction of input-output tables. The extra burden on the construction of input-output tables resulting from this approach is examined for the Dutch situation. An adapted sectoring of institutional units is proposed for the construction of input-output tables.
- NA/08 A note on Dutch National Accounting data 1900-1984**, Van Bochove, C.A. (1985).
This note provides a brief survey of Dutch national accounting data for 1900-1984, concentrating on national income. It indicates where these data can be found and what the major discontinuities are. The note concludes that estimates of the level of national income may contain inaccuracies; that its growth rate is measured accurately for the period since 1948; and that the real income growth rate series for 1900-1984 may contain a systematic bias.

- NA/09 The structure of the next SNA: review of the basic options**, Van Bochove, C.A. and A.M. Bloem (1985).
There are two basic issues with respect to the structure of the next version of the UN System of National Accounts. The first is its 'size': reviewing this issue, it can be concluded that the next SNA should contain an integrated meso-economic statistical system. It is essential that the next SNA contains an institutional system without the imputations and attributions that pollute the present SNA. This can be achieved by distinguishing, in the central system of the next SNA, a core (the institutional system), a standard module for non-market production and a standard module describing attributed income and consumption of the household sector.
- NA/10 Dual sectoring in National Accounts**, Al, P.G. (1985).
Following a conceptual explanation of dual sectoring, an outline is given of a statistical system with complete dual sectoring in which the linkages are also defined and worked out. It is shown that the SNA 1968 is incomplete and obscure with respect to the links between the two sub-processes.
- NA/11 Backward and forward linkages with an application to the Dutch agro-industrial complex**, Harthoorn, R. (1985).
Some industries induce production in other industries. An elegant method is developed for calculating forward and backward linkages avoiding double counting. For 1981 these methods have been applied to determine the influence of Dutch agriculture in the Dutch economy in terms of value added and labour force.
- NA/12 Production chains**, Harthoorn, R. (1986).
This paper introduces the notion of production chains as a measure of the hierarchy of industries in the production process. Production chains are sequences of transformation of products by successive industries. It is possible to calculate forward transformations as well as backward ones.
- NA/13 The simultaneous compilation of current price and deflated input-output tables**, De Boer, S. and G.A.A.M. Broesterhuizen (1986).
A few years ago the method of compiling input-output tables underwent in the Netherlands an essential revision. The most significant improvement is that during the entire statistical process, from the processing and analysis of the basic data up to and including the phase of balancing the tables, data in current prices and deflated data are obtained simultaneously and in consistency with each other.
- NA/14 A proposal for the synoptic structure of the next SNA**, Al, P.G. and C.A. van Bochove (1986).
- NA/15 Features of the hidden economy in the Netherlands**, Van Eck, R. and B. Kazemier (1986).
This paper presents survey results on the size and structure of the hidden labour market in the Netherlands.
- NA/16 Uncovering hidden income distributions: the Dutch approach**, Van Bochove, C.A. (1987).
- NA/17 Main national accounting series 1900-1986**, Van Bochove, C.A. and T.A. Huitker (1987).
The main national accounting series for the Netherlands, 1900-1986, are provided, along with a brief explanation.
- NA/18 The Dutch economy, 1921-1939 and 1969-1985. A comparison based on revised macro-economic data for the interwar period**, Den Bakker, G.P., T.A. Huitker and C.A. van Bochove (1987).
A set of macro-economic time series for the Netherlands 1921-1939 is presented. The new series differ considerably from the data that had been published before. They are also more comprehensive, more detailed, and conceptually consistent with the modern National Accounts. The macro-economic developments that are shown by the new series are discussed. It turns out that the traditional economic-historical view of the Dutch economy has to be reversed.
- NA/19 Constant wealth national income: accounting for war damage with an application to the Netherlands, 1940-1945**, Van Bochove, C.A. and W. van Sorge (1987).

- NA/20 The micro-meso-macro linkage for business in an SNA-compatible system of economic statistics**, Van Bochove, C.A. (1987).
- NA/21 Micro-macro link for government**, Bloem, A.M. (1987).
This paper describes the way the link between the statistics on government finance and national accounts is provided for in the Dutch government finance statistics.
- NA/22 Some extensions of the static open Leontief model**, Harthoorn, R.(1987).
The results of input-output analysis are invariant for a transformation of the system of units. Such transformation can be used to derive the Leontief price model, for forecasting input-output tables and for the calculation of cumulative factor costs. Finally the series expansion of the Leontief inverse is used to describe how certain economic processes are spread out over time.
- NA/23 Compilation of household sector accounts in the Netherlands National Accounts**, Van der Laan, P. (1987).
This paper provides a concise description of the way in which household sector accounts are compiled within the Netherlands National Accounts. Special attention is paid to differences with the recommendations in the United Nations System of National Accounts (SNA).
- NA/24 On the adjustment of tables with Lagrange multipliers**, Harthoorn, R. and J. van Dalen (1987).
An efficient variant of the Lagrange method is given, which uses no more computer time and central memory than the widely used RAS method. Also some special cases are discussed: the adjustment of row sums and column sums, additional restraints, mutual connections between tables and three dimensional tables.
- NA/25 The methodology of the Dutch system of quarterly accounts**, Janssen, R.J.A. and S.B. Algera (1988).
In this paper a description is given of the Dutch system of quarterly national accounts. The backbone of the method is the compilation of a quarterly input-output table by integrating short-term economic statistics.
- NA/26 Imputations and re-routeings in the National Accounts**, Gorter, Cor N. (1988).
Starting out from a definition of 'actual' transactions an inventory of all imputations and re-routeings in the SNA is made. It is discussed which of those should be retained in the core of a flexible system of National Accounts. Conceptual and practical questions of presentation are brought up. Numerical examples are given.
- NA/27 Registration of trade in services and market valuation of imports and exports in the National Accounts**, Bos, Frits (1988).
The registration of external trade transactions in the main tables of the National Accounts should be based on invoice value; this is not only conceptually very attractive, but also suitable for data collection purposes.
- NA/28 The institutional sector classification**, Van den Bos, C. (1988).
A background paper on the conceptual side of the grouping of financing units. A limited number of criteria are formulated.
- NA/29 The concept of (transactor-)units in the National Accounts and in the basic system of economic statistics**, Bloem, Adriaan M. (1989).
Units in legal-administrative reality are often not suitable as statistical units in describing economic processes. Some transformation of legal-administrative units into economic statistical units is needed. This paper examines this transformation and furnishes definitions of economic statistical units. Proper definitions are especially important because of the forthcoming revision of the SNA.
- NA/30 Regional income concepts**, Bloem, Adriaan M. and Bas De Vet (1989).
In this paper, the conceptual and statistical problems involved in the regionalization of national accounting variables are discussed. Examples are the regionalization of Gross Domestic Product, Gross National Income, Disposable National Income and Total Income of the Population.

- NA/31 The use of tendency surveys in extrapolating National Accounts**, Ouddeken, Frank and Gerrit Zijlmans (1989).
This paper discusses the feasibility of the use of tendency survey data in the compilation of very timely Quarterly Accounts. Some preliminary estimates of relations between tendency survey data and regular Quarterly Accounts-indicators are also presented.
- NA/32 An economic core system and the socio-economic accounts module for the Netherlands**, Gorter, Cor N. and Paul van der Laan (1989).
A discussion of the core and various types of modules in an overall system of economy related statistics. Special attention is paid to the Dutch Socio-economic Accounts. Tables and figures for the Netherlands are added.
- NA/33 A systems view on concepts of income in the National Accounts**, Bos, Frits (1989).
In this paper, concepts of income are explicitly linked to the purposes of use and to actual circumstances. Main choices in defining income are presented in a general system. The National Accounts is a multi-purpose framework. It should therefore contain several concepts of income, e.g. differing with respect to the production boundary. Furthermore, concepts of national income do not necessarily constitute an aggregation of income at a micro-level.
- NA/34 How to treat borrowing and leasing in the next SNA**, Keuning, Steven J. (1990).
The use of services related to borrowing money, leasing capital goods, and renting land should not be considered as intermediate inputs into specific production processes. It is argued that the way of recording the use of financial services in the present SNA should remain largely intact.
- NA/35 A summary description of sources and methods used in compiling the final estimates of Dutch National Income 1986**, Gorter, Cor N. and others (1990).
Translation of the inventory report submitted to the GNP Management Committee of the European Communities.
- NA/36 The registration of processing in supply and use tables and input-output tables**, Bloem, Adriaan M., Sake De Boer and Pieter Wind (1993).
The registration of processing is discussed primarily with regard to its effects on input-output-type tables and input-output quotes. Links between National Accounts and basic statistics, user demands and international guidelines are examined. Net recording is in general to be preferred. An exception has to be made when processing amounts to a complete production process, e.g. oil refineries in the Netherlands.
- NA/37 A proposal for a SAM which fits into the next System of National Accounts**, Keuning, Steven J. (1990).
This paper shows that all flow accounts which may become part of the next System of National Accounts can be embedded easily in a Social Accounting Matrix (SAM). In fact, for many purposes a SAM format may be preferred to the traditional T-accounts for the institutional sectors, since it allows for more flexibility in selecting relevant classifications and valuation principles.
- NA/38 Net versus gross National Income**, Bos, Frits (1990).
In practice, gross figures of Domestic Product, National Product and National Income are most often preferred to net figures. In this paper, this practice is challenged. Conceptual issues and the reliability of capital consumption estimates are discussed.
- NA/39 Concealed interest income of households in the Netherlands; 1977, 1979 and 1981**, Kazemier, Brugt (1990).
The major problem in estimating the size of hidden income is that total income, reported plus unreported, is unknown. However, this is not the case with total interest income of households in the Netherlands. This makes it possible to estimate at least the order of magnitude of this part of hidden income. In this paper it will be shown that in 1977, 1979 and 1981 almost 50% of total interest received by households was concealed.

- NA/40 Who came off worst: Structural change of Dutch value added and employment during the interwar period**, Den Bakker, Gert P. and Jan de Gijt (1990).
In this paper new data for the interwar period are presented. The distribution of value added over industries and a break-down of value added into components is given. Employment by industry is estimated as well. Moreover, structural changes during the interwar years and in the more recent past are juxtaposed.
- NA/41 The supply of hidden labour in the Netherlands: a model**, Kazemier, Brugt and Rob van Eck (1990).
This paper presents a model of the supply of hidden labour in the Netherlands. Model simulations show that the supply of hidden labour is not very sensitive to cyclical fluctuations. A tax exempt of 1500 guilders for second jobs and a higher probability of detection, however, may substantially decrease the magnitude of the hidden labour market.
- NA/42 Benefits from productivity growth and the distribution of income**, Keuning, Steven J. (1990).
This paper contains a discussion on the measurement of multifactor productivity and sketches a framework for analyzing the relation between productivity changes and changes in the average factor remuneration rate by industry. Subsequently, the effects on the average wage rate by labour category and the household primary income distribution are studied.
- NA/43 Valuation principles in supply and use tables and in the sectoral accounts**, Keuning, Steven J. (1991).
In many instances, the valuation of transactions in goods and services in the national accounts poses a problem. The main reason is that the price paid by the purchaser deviates from the price received by the producers. The paper discusses these problems and demonstrates that different valuations should be used in the supply and use tables and in the sectoral accounts.
- NA/44 The choice of index number formulae and weights in the National Accounts. A sensitivity analysis based on macro-economic data for the interwar period**, Bakker, Gert P. den (1991).
The sensitivity of growth estimates to variations in index number formulae and weighting procedures is discussed. The calculations concern the macro-economic variables for the interwar period in the Netherlands. It appears, that the use of different formulae and weights yields large differences in growth rates. Comparisons of Gross Domestic Product growth rates among countries are presently obscured by the use of different deflation methods. There exists an urgent need for standardization of deflation methods at the international level.
- NA/45 Volume measurement of government output in the Netherlands; some alternatives**, Kazemier, Brugt (1991).
This paper discusses three alternative methods for the measurement of the production volume of government. All methods yield almost similar results: the average annual increase in the last two decades of government labour productivity is about 0.7 percent per full-time worker equivalent. The implementation of either one of these methods would have led to circa 0.1 percentage points higher estimates of economic growth in the Netherlands.
- NA/46 An environmental module and the complete system of national accounts**, Boo, Abram J. De, Peter R. Bosch, Cor N. Gorter and Steven J. Keuning (1991).
A linkage between environmental data and the National Accounts is often limited to the production accounts. This paper argues that the consequences of economic actions on ecosystems and vice versa should be considered in terms of the complete System of National Accounts (SNA). One should begin with relating volume flows of environmental matter to the standard economic accounts. For this purpose, a so-called National Accounting Matrix including Environmental Accounts (NAMEA) is proposed. This is illustrated with an example.

- NA/47 Deregulation and economic statistics: Europe 1992**, Bos, Frits (1992). The consequences of deregulation for economic statistics are discussed with a view to Europe 1992. In particular, the effects of the introduction of the Intrastat-system for statistics on international trade are investigated. It is argued that if the Statistical Offices of the EC-countries do not respond adequately, Europe 1992 will lead to a deterioration of economic statistics: they will become less reliable, less cost effective and less balanced.
- NA/48 The history of national accounting**, Bos, Frits (1992). At present, the national accounts in most countries are compiled on the basis of concepts and classifications recommended in the 1968-United Nations guidelines. In this paper, we trace the historical roots of these guidelines (e.g. the work by King, Petty, Kuznets, Keynes, Leontief, Frisch, Tinbergen and Stone), compare the subsequent guidelines and discuss also alternative accounting systems like extended accounts and SAMs.
- NA/49 Quality assessment of macroeconomic figures: The Dutch Quarterly Flash**, Reininga, Ted, Gerrit Zijlmans and Ron Janssen (1992). Since 1989-IV, the Dutch Central Bureau of Statistics has made preliminary estimates of quarterly macroeconomic figures at about 8 weeks after the end of the reference quarter. Since 1991-II, a preliminary or "Flash" estimate of GDP has been published. The decision to do so was based on a study comparing the Flash estimates and the regular Quarterly Accounts figures, which have a 17-week delay. This paper reports on a similar study with figures through 1991-III.
- NA/50 Quality improvement of the Dutch Quarterly Flash: A Time Series Analysis of some Service Industries**, Reininga, Ted and Gerrit Zijlmans (1992). The Dutch Quarterly Flash (QF) is, just like the regular Quarterly Accounts (QA), a fully integrated statistic based on a quarterly updated input-output table. Not all short term statistics used to update the QA's IO-table are timely enough to be of use for the QF, so other sources have to be found or forecasts have to be made. In large parts of the service industry the latter is the only possibility. This paper reports on the use of econometric techniques (viz. series decomposition and ARIMA modelling) to improve the quality of the forecasts in five parts of the service industry.
- NA/51 A Research and Development Module supplementing the National Accounts**, Bos, Frits, Hugo Hollanders and Steven Keuning (1992). This paper presents a national accounts framework fully tailored to a description of the role of Research and Development (R&D) in the national economy. The framework facilitates to draw macro-economic conclusions from all kinds of data on R&D (also micro-data and qualitative information). Figures presented in this way can serve as a data base for modelling the role of R&D in the national economy.
- NA/52 The allocation of time in the Netherlands in the context of the SNA; a module**, Kazemier, Brugt and Jeanet Exel (1992). This paper presents a module on informal production, supplementing the National Accounts. Its purpose is to incorporate informal production into the concepts of the SNA. The relation between formal and informal production is shown in the framework of a Social Accounting Matrix (SAM). To avoid a controversial valuation of informal production, the module consists of two SAMs. One expressed in actual prices with informal labour valued zero, and one which expresses the embedded informal labour input measured in terms of hours worked.
- NA/53 National Accounts and the environment: the case for a system's approach**, Keuning, Steven J. (1992). The present set of main economic indicators should be extended with one or a few indicators on the state of the environment. This paper lists various reasons why a so-called Green Domestic Product is not suitable for this purpose. Instead, a system's approach should be followed. A National Accounting Matrix including Environmental Accounts (NAMEA) is presented and the way to derive one or more separate indicators on the environment from this information system is outlined.

- NA/54 How to treat multi-regional units and the extra-territorial region in the Regional Accounts?**, De Vet, Bas (1992).
This paper discusses the regionalization of production and capital formation by multi-regional kind-of-activity units. It also examines the circumstances in which a unit may be said to have a local kind-of-activity unit in the extra-territorial region and what should be attributed to this "region".
- NA/55 A historical Social Accounting Matrix for the Netherlands (1938)**, Den Bakker, Gert P., Jan de Gijt and Steven J. Keuning (1992).
This paper presents a Social Accounting Matrix (SAM) for the Netherlands in 1938, including related, non-monetary tables on demographic characteristics, employment, etc. The distribution of income and expenditure among household subgroups in the 1938 SAM is compared with concomitant data for 1987.
- NA/56 Origin and development of the Dutch National Accounts**, Den Bakker, Gert P. (1992).
This paper describes the history of national accounting in the Netherlands. After two early estimates in the beginning of the nineteenth century, modern national accounting started in the 1930s on behalf of the Tinbergen model for the Dutch economy. The development spurred up after World War II to provide data to the government for economic planning purposes. In the 1980s, the development was towards a flexible and institutional approach.
- NA/57 Compiling Dutch Gross National Product (GNP); summary report on the final estimates after the revision in 1992**, Bos, Frits (1992).
This summary report describes the sources and methods used for compiling the final estimate of Dutch Gross National Product after the revision of the Dutch National Accounts in 1992. Attention is focused on the estimation procedures for 1988. A more extensive report is also available.
- NA/58 The 1987 revision of the Netherlands' National Accounts**, Van den Bos, C and P.G. Al (1994).
The 1987 revision that was completed in 1992 has improved the Dutch National Accounts in three ways. First, new and other data sources have been used, like Production statistics of service industries, the Budget Survey and Statistics on fixed capital formation. Secondly, the integration process has been improved by the use of detailed make- and use-tables instead of more aggregate input-output tables. Thirdly, several changes in bookkeeping conventions have been introduced, like a net instead of a gross registration of processing to order.
- NA/59 A National Accounting Matrix for the Netherlands**, Keuning, Steven and Jan de Gijt (1992).
Currently, the national accounts typically use two formats for presentation: matrices for the Input-Output tables and T-accounts for the transactions of institutional sectors. This paper demonstrates that presently available national accounts can easily be transformed into a National Accounting Matrix (NAM). This may improve both the transparency and analytic usefulness of the complete set of accounts.
- NA/60 Integrated indicators in a National Accounting Matrix including environmental accounts (NAMEA); an application to the Netherlands**, De Haan, Mark, Steven Keuning and Peter Bosch (1993).
In this paper, environmental indicators are integrated into a National Accounting Matrix including Environmental Accounts (NAMEA) and are put on a par with the major aggregates in the national accounts, like National Income. The environmental indicators reflect the goals of the environmental policy of the Dutch government. Concrete figures are presented for 1989. The NAMEA is optimally suited as a data base for modelling the interaction between the national economy and the environment.

- NA/61 Standard national accounting concepts, economic theory and data compilation issues; on constancy and change in the United Nations-Manuals on national accounting (1947, 1953, 1968 and 1993), Bos, Frits (1993).**
In this paper, the four successive guidelines of the United Nations on national accounting are discussed in view of economic theory (Keynesian analysis, welfare, Hicksian income, input-output analysis, etc.) and data compilation issues (e.g. the link with concepts in administrative data sources). The new guidelines of the EC should complement those of the UN and be simpler and more cost-efficient. It should define a balanced set of operational concepts and tables that is attainable for most EC countries within 5 years.
- NA/62 Revision of the 1987 Dutch agricultural accounts, Pauli, Peter and Nico van Stokrom (1994).**
During the recent revision of the Dutch national accounts, new agricultural accounts have been compiled for the Netherlands. This paper presents the major methodological and practical improvements and results for 1987, the base year for this revision. In addition, this paper demonstrates that a linkage can be established between the E.C. agricultural accounting system and the agricultural part of the standard national accounts.
- NA/63 Implementing the revised SNA in the Dutch National Accounts, Bos, Frits (1993).**
This paper discusses the implementation of the new United Nations guidelines on national accounting (SNA) in the Netherlands. The changes in basic concepts and classifications in the SNA will be implemented during the forthcoming revision. The changes in scope will be introduced gradually. Important changes scheduled for the near future are the incorporation of balance sheets, an environmental module and a Social Accounting Matrix.
- NA/64 Damage and insurance compensations in the SNA, the business accounts and the Dutch national accounts, Baris, Willem (1993).**
This paper describes the recording of damages to inventories and produced fixed assets in general, including damages as a result of legal product liability and of the liability for damage to the environment. In this regard, the 1993 System of National Accounts and the practice of business accounting are compared with the Dutch national accounts.
- NA/65 Analyzing economic growth: a description of the basic data available for the Netherlands and an application, Van Leeuwen, George, Hendrie van der Hoeven and Gerrit Zijlmans (1994).**
This paper describes the STAN project of the OECD and the Dutch national accounts data supplied to the STAN database, which is designed for a structural analysis of the role of technology in economic performance. Following an OECD analysis for other industrial countries, the importance of international trade for a small open economy such as the Netherlands is investigated. The STAN database is also available on floppy disk at the costs of DFL. 25, an can be ordered by returning the order form below (Please mention: STAN floppy disk).
- NA/66 Comparability of the sector General Government in the National Accounts, a case study for the Netherlands and Germany, Streppel, Irene and Dick Van Tongeren (1994).**
This paper questions the international comparability of data concerning the sector General Government in the National Accounts. Two differences are distinguished: differences due to lack of compliance with international guidelines and institutional differences. Adjustments to National Accounts data are reflected in a separate module which compares Germany versus The Netherlands. The module shows that total General Government resources as well as uses are substantially higher in the Netherlands.

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Appendix I

TABLE B
RESOURCES AND USES OF NON PROFIT INSTITUTIONS MAINLY FINANCED BY GOVERNMENT (NPI'S) 1)
AND THE GENERAL CIVILIAN PENSION FUND (GCPF), THE NETHERLANDS, 1987, 1990, IN MLN GLD

RESOURCES	ESA code	1987		1990	
		NPI'S	GCPF	NPI'S	GCPF
SALES OF GOODS AND SERVICES PRODUCED		4700	110	4300	90
TAXES LINKED TO PRODUCTION AND IMPORTS	R20	0	0	0	0
PROPERTY AND ENTREPRENEURIAL INCOME	R40	0	11340	0	12180
ACCIDENT INSURANCE TRANSACTIONS	R50	0	0	0	0
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	10700	0	11600	0
CAPITAL TRANSFERS	R70	500	280	600	270
ACTUAL PENSION PREMIUMS 2)		0	5450	0	3950
CONSUMPTION OF FIXED CAPITAL	A1	0	20	0	10
TOTAL RESOURCES		15900	17200	16500	16500
USES					
INTERMEDIATE CONSUMPTION	P20	6500	130	7000	130
CONSUMPTION OF FIXED CAPITAL	A1	0	20	0	10
COMPENSATION OF EMPLOYEES	R10	8900	250	8900	270
TAXES LINKED TO PRODUCTION EXCLUDING VAT	R22	0	0	0	0
SUBSIDIES	R30	0	0	0	0
PROPERTY AND ENTREPRENEURIAL INCOME	R40	0	0	0	0
ACCIDENT INSURANCE TRANSACTIONS	R50	0	0	0	0
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	0	0	0	0
GROSS CAPITAL FORMATION	P40	500	20	600	30
NET PURCHASES OF LAND AND INTANGIBLE ASSET	P70	0	0	0	0
CAPITAL TRANSFERS	R70	0	0	0	0
PENSIONBENEFITS 2)		0	7860	0	8910
TOTAL USES		15900	8280	16500	9350
NET LENDING (+) OR NET BORROWING (-)	N5	0	8920	0	7150

1) THIS GROUP OF NPI'S CONSISTS OF E.G. INSTITUTIONS FOR AMBULATORY MENTAL HEALTH CARE, CROSS ORGANIZATIONS, MUSEUMS, LIBRARIES, RESEARCH INSTITUTIONS MAINLY FINANCED BY GOVERNMENT, HOMES OF THE AGED

2) IN THE NA OF THE NETHERLANDS THE PENSION PREMIUMS AND BENEFITS ARE REGISTERED AS FINANCIAL TRANSACTIONS, AS PART OF THE SECTOR INSURANCE COMPANIES AND PENSION FUNDS

TABLE C
RESOURCES AND USES OF GENERAL GOVERNMENT, THE NETHERLANDS AND GERMANY, 1987, 1990, IN MLN GLD, MLN DM
ADJUSTED DUTCH DATA

RESOURCES	ESA code	1987				1990			
		Neth. adj.	Germ.	Neth. % OF GDP	Germ. % OF GDP	Neth. adj.	Germ.	Neth. % OF GDP	Germ. % OF GDP
SALES OF GOODS AND SERVICES PRODUCED		16840	60780	3.8	3.0	17690	74960	3.4	3.1
TAXES LINKED TO PRODUCTION AND IMPORTS	R20	52920	225300	12.0	11.3	57450	279650	11.1	11.6
PROPERTY AND ENTREPRENEURIAL INCOME	R40	20460	26040	4.7	1.3	21120	33670	4.1	1.4
ACCIDENT INSURANCE TRANSACTIONS	R50	100	1470	0.0	0.1	90	1580	0.0	0.1
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	168510	606420	38.3	30.5	186340	695410	36.2	28.7
CAPITAL TRANSFERS	R70	1430	6350	0.3	0.3	1550	7710	0.3	0.3
CONSUMPTION OF FIXED CAPITAL	A1	3420	14070	0.8	0.7	3920	16630	0.8	0.7
TOTAL RESOURCES		263680	940430	59.9	47.2	288160	1109610	55.9	45.9
USES									
INTERMEDIATE CONSUMPTION	P20	35670	101780	8.1	5.1	40230	117410	7.8	4.8
CONSUMPTION OF FIXED CAPITAL	A1	3420	14070	0.8	0.7	3920	16630	0.8	0.7
COMPENSATION OF EMPLOYEES	R10	59860	211500	13.6	10.6	63870	236320	12.4	9.8
TAXES LINKED TO PRODUCTION EXCLUDING VAT	R22	470	250	0.1	0.0	510	250	0.1	0.0
SUBSIDIES	R30	12820	33930	2.9	1.7	10190	38130	2.0	1.6
PROPERTY AND ENTREPRENEURIAL INCOME	R40	19320	56780	4.4	2.9	20640	62560	4.0	2.6
ACCIDENT INSURANCE TRANSACTIONS	R50	100	260	0.0	0.0	90	320	0.0	0.0
UNREQUITED CURRENT TRANSFERS N.E.C.	R60	127920	481390	29.0	24.2	149670	598060	29.0	24.7
GROSS CAPITAL FORMATION	P40	12000	46000	2.7	2.3	14530	54510	2.7	2.2
NET PURCHASES OF LAND AND INTANGIBLE ASSETS	P70	-2370	1990	-0.5	0.1	-3220	1520	-0.6	0.1
CAPITAL TRANSFERS	R70	13600	30320	3.1	1.5	8110	33330	1.6	1.4
TOTAL USES		282810	978270	64.2	49.1	308540	1159040	59.8	47.9
GDP (at market prices)	N1	440580	1990480	100.0	100.0	516270	2417800	100.0	100.0
NET LENDING (+) OR NET BORROWING (-)	N5	-19130	-37840	-4.3	-1.9	-20380	-49430	-3.9	-2.0