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A HISTORICAL SOCIAL ACCOUNTING MATRIX FOR THE NETHERLANDS*)

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A HISTORICAL SOCIAL ACCOUNTING MATRIX FOR THE NETHERLANDS (1938)
including a comparison with the 1987 distribution of income and outlay

Summary

This paper presents a historical Social Accounting Matrix for the Netherlands, including related, non-monetary tables on demographic characteristics, employment, etc. The explanation of the SAM proceeds in stages, starting from an aggregate, macro-table and introducing increasingly more details. In this way, it is hoped that the reader will be able to see the wood and at the same time retain the trees.

Subsequently, the distribution of income and expenditure among household subgroups as appears from this 1938 SAM is compared with concomitant data for 1987. Some interesting conclusions are:

- The middle class has expanded enormously in these years and in 1987 this class largely consisted of employee households; the relative share of entrepreneurs declined drastically. Besides, a much larger proportion of households was headed by pensioners in 1987.
- The average household became much smaller: 2.5 persons in 1987 versus 4.0 in 1938. Recently, the smallest households were found among the transfer income recipients, whereas fifty years ago the unemployed still had the largest households.
- The food budget share more than halved in the last five decades. Simultaneously, the budget shares of passenger cars, bicycles, cameras, etc. and of consumption expenditures abroad were almost negligible in 1938, and equal to 7% and 5%, respectively in 1987.
- The distribution of income and expenditure among household subgroups has become much less unequal.
- The variance in food budget shares was very small in the recent past; on the contrary, in 1938 the poorer subgroups still spent roughly half of their budget on food, while this proportion was only 20% in the richer subgroups. This indicates that the poorer subgroups could fulfil hardly more than their basic needs in 1938, while this was no longer the case in 1987.

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1. Introduction

Several years ago, the Netherlands Central Bureau of Statistics (CBS) embarked on a project dealing with the compilation of long, consistent time-series of national accounts. As part of this project, the national accounting data for the years 1921-1939 have been revised and elaborated. In the first instance, this concerned a revision of macro-economic variables (Den Bakker, Huitker and Van Bochove, 1990). However, it was gradually realized that macro-figures provide only part of the picture, if only because the crisis of the 1930s did not hit all industries and all population groups to the same extent. For an in-depth analysis of the economic situation in those years, several dispersed sources of data are available. Just like today, each of these sources focus on a certain aspect of the economy: inter-industry relations, labour force, household consumption, balance of payments, unemployment, etc.

Combining such isolated sources into a general framework increases both their relevance and their reliability. Only an integrated set of data at a meso-level allows for a formal analysis of inter-relations among various economic processes. Moreover, when compiling such a set, all kinds of consistency checks can be built in, so that the quality of the underlying sources is screened and improved. This principle is well-known in the case of production-oriented analyses, which often utilize input-output tables for this purpose. However, it could be extended to analyses which take a broader view and incorporate issues like income distribution and unemployment. This requires the compilation of a so-called Social Accounting Matrix (SAM).

Concerning the interwar-period in the Netherlands, we have been able to compile a SAM for 1938. Evidently, such a detailed historical snapshot is even more interesting if it can be put in perspective with a more recent year. For that reason, this paper contains a comparative analysis of the distributions of income and expenditures by household subgroup in 1938 and 1987.

The next section introduces the SAM-concept and discusses its main

features. Section 3 describes a 1938 SAM for the Netherlands, including related, non-monetary tables on demographic characteristics, unemployment, etc. The explanation of the SAM proceeds in stages, starting from an aggregate, macro-table and introducing increasingly more details. Section 4 deals with the comparability of the 1938 SAM and detailed 1987 accounts for the household sector. Section 5 analyzes the household conditions in both years and the last section contains some conclusions. A description of data sources and estimation methods for the 1938 SAM is given in the Appendix.

2. A Social Accounting Matrix for Historical Economic Analysis

In terms of national data availability, the interwar period is often characterized by the presence of a range of isolated sources which in some cases contain fairly detailed figures. However, these statistics have typically not yet been integrated into a common consistency framework. In this respect, this period deviates from earlier years for which detailed information at the national level is much more scarce, and as well from the period after World War II in which the compilation of national accounts has rapidly developed.

Therefore, it is not surprising that at present the compilation of national accounts for the interwar years is undertaken in many countries. Usually, these projects have to cope with the fact that only for a few years relatively much information is available, e.g. from a population census or a household budget survey. In this case, it is advisable to work with one or more benchmark years for which rather detailed accounts are constructed. As a consequence, the macro-figures derived from such a data set also tend to be more reliable than those for other years which are necessarily based on less extensive sources. Time-series data for aggregate variables can then be scaled such that the values for the benchmark year(s) agree with the concomitant figures in the extended benchmark data set. In addition, such benchmark data sets are quite useful for an international or intertemporal comparison of economic performance. Particularly when living standards or institutional settings of two countries or two periods are widely divergent, it may be more relevant to compare economic structures than to juxtapose aggregate figures.

This paper deals with the construction and analysis of such an integrated benchmark data set at a meso-level. For this purpose, national accounts can be cast in several formats, namely straightforward (T-) accounts, balance statements, equations and matrices.¹ In practice, detailed production accounts are often shown in a matrix format (input-output table or supply and use tables), while sectoral accounts for the other economic processes usually apply T-accounts. The link between both parts is typically somewhat problematic, both qua intelligibility and qua

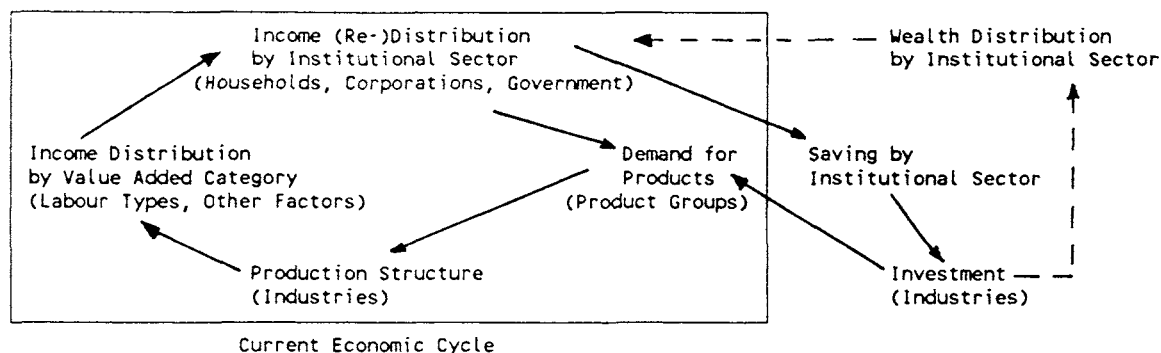
figures. In fact, an overall analysis of a complete economy is best served by the use of a single format for presentation.

As soon as some data are available about the interaction of groups of economic agents involved in processes such as production, income generation, income (re-)distribution and consumption, their reconciliation within a general matrix framework should be considered. A decisive advantage of a matrix framework is that it allows for multiple acting and multiple sectoring.² This means that one can select in each account a unit and a classification of units which are most relevant to the economic process described in this account (Keuning, 1991).

The relevance of this feature can be illustrated by means of the circular flow of income for a closed economy as shown in figure 1 (copied from Keuning, 1988). The interdependence between demand, production and income distribution is well-known, but figure 1 recalls that in these processes different types of economic agents are involved: demand for products leads to production in business units which generate net value added paid to various types of employees and various categories of non-produced assets used (financial assets, land, other intangible assets, etc.). In turn, wages and salaries, self-employment income and the remunerations for asset use are handed over to institutional units such as households, financial and non-financial corporations and the government. After a re-distribution process, these incomes are used for the consumption of products or saved.

1. Refer to chapter 1 of the present System of National Accounts (United Nations, 1968).
2. The draft chapter on Social Accounting Matrices for the 1993 System of National Accounts (SNA) contains a more systematic review of the properties of a matrix presentation (United Nations, 1992; Chapter XX, section B.3). This draft is also available from the last-mentioned author of the present paper.

Figure 1. Flow chart of the economic cycle for a closed economy, as represented in a SAM



A correct representation of this simple economy requires the distinction of four types of statistical units: products, business units (in SNA terms: establishments), primary input units (employed persons, cultivated hectares of agricultural land, etc.) and institutional units (largely based on legal units like households, companies and government units). It goes without saying that it is not possible to record individual units in a nation-wide statistic. Instead, units should be classified in categories so that the interrelations between these subgroups can be shown and analyzed. This is done in a SAM, which can be seen as an extension of an input-output framework so that the entire circular flow of income is presented at a meso-level.³ A SAM is particularly expedient if one wants to study (un)employment in relation to issues like productivity, inflation, external balance and income distribution, as it reconciles, at a meso-level, labour force statistics and conventional national accounts.

The SAM-concept is applied in the next section, which presents a 1938 SAM for the Netherlands.

3. More information on SAMs can be found in e.g., Pyatt and Thorbecke (1976), Pyatt and Round (1986), Keuning and de Ruijter (1988), Alarcon, van Heemst, Keuning, de Ruijter and Vos (1991), the journal *Economic Systems Research*, Volume 3, Number 3 (1991) and the chapter on SAMs in the next SNA (see footnote 2).

3. A Historical Social Accounting Matrix for the Netherlands (1938)

3.1. An Aggregated SAM

First, the basic ideas of the SAM framework are explained with the help of the aggregated version shown in table 1. This SAM also serves as a summary table to which more detailed tables will refer. Besides, the aggregate SAM provides an overall view of the Dutch economy in 1938. It presents the interrelations among main transaction categories and contains as well the most important macro-economic aggregates, such as national income and the current external balance. In a matrix presentation each account is represented by a row and column pair on which transactions are shown. The rows register receipts by origin and the columns outlays by destination. Of course, row and column totals are equal.

In table 1 the following accounts have been distinguished: supply and use of goods and services, production, generation of income and allocation of primary income, secondary distribution of income, use of income, capital, fixed capital formation, financial balance, and current as well as capital transactions of the rest of the world with the national economy.⁴ The financial balance account absorbs the balancing items of the capital accounts for the nation and the rest of the world, respectively. These balancing items always add up to zero. The column for this account is thus empty and has been deleted.

Row 1 shows the uses of goods and services: intermediate consumption by industries (cell 1,2), final consumption expenditures (cell 1,6), changes in stocks (cell 1,7), gross fixed capital formation (cell 1,8) and exports (cell 1,10). Trade and transport margins in cell (1,1) add up to zero at the macro level. All uses in row 1 are valued at purchasers' prices; for exports, this amounts to f.o.b. prices.

Column 1 contains the supply of goods and services from domestic or

4. Up to and including the capital account, this sequence follows the one proposed for the next SNA except for the tertiary distribution of income and expenditure accounts. The rest of the SNA-sequence is only very partially shown due to lack of data. The usefulness of a separate fixed capital formation account is set out in Keuning (1991) and in the SAM-Chapter of the next SNA.

Table 1. An aggregated Social Accounting Matrix for the Netherlands, 1938 (mln guilders)

ACCOUNT (Classification)	1	2	3	4	5	6	7	8	10	11	TOTAL
	codes										
		0. Goods & Services (Products) (Industries)	II.1.1 Generation of Income (Value-added Categories)	II.1.2 Allocation of Primary Income (Institutional Sectors)	II.2 Distribution Secondary Income (Institutional Sectors)	II.4 Use of Income (Institutional Sectors)	III.1 Capital Changes in Stocks	Fixed Capital Formation (Industries)	I./II. Current (Industries)	V. Rest of the World III.1 Capital	
Goods & Services (Products)	1	Trade and Transport Margins 0	Intermediate Consumption 4201			Final Consumption Expenditure 4856	-180	981	1558		11416
Production (Industries)	2	Output 9239									9239
Generation of Income (Value-added Categories)	3		GROSS DOMESTIC PRODUCT, at factor costs 5038						Compensation of Employees from ROW 0		5038
Allocation of Primary Income (Institutional Sectors)	4	Taxes on Products - Subsidies 468	NET GENERATED INCOME, at factor costs 4634	Property Income 1952					Property Income from ROW 506		6660
Distribution of Secondary income (Institutional Sectors)	5			NET NATIONAL INCOME 5459	Current Taxes and Transfers 1332				Current Transfers from ROW 2		6793
Use of Income (Institutional Sectors)	6				NET DISPOSABLE INCOME 5461						5461
Capital	7		Fixed Capital Consumption 404			NET SAVING 605				Capital Transfers from ROW 55	1064
Fixed Capital Formation (Industries)	8						Gross Fixed Cap. Formation 981				981
Financial Balance	9						NET LENDING of the Nation 255			NET LENDING to ROW -255	0
Rest of the World: Current	10	Imports 1709	Employees Compensat. to ROW 0	Property Income to ROW 149	Current Transfers to ROW 0						1858
Rest of the World: Capital	11						Capital Transfers to ROW 8			CURRENT EXTERNAL DEFICIT -208	-200
TOTAL		11416	9239	5038	6660	5461	1064	981	1858	-200	-200

foreign origin. Total domestic output is given in cell (2,1) and total imports in cell (10,1). Output is valued at factor costs and imports at c.i.f. prices. Trade and transport margins are settled in cell (1,1). Some indirect taxes and subsidies, such as import duties, do not relate to industries, but to products. Therefore, net indirect taxes are not included in the output of industries, but directly booked from the goods and services account to the allocation of primary income account (for the government) - see cell (4,1). The total of column 1 agrees with total supply at purchasers' prices. Evidently, this equals total use at purchasers' prices, shown as the sum of row 1.

Row 2 records output of industries, exclusive of indirect taxes minus subsidies. In column 2, the remuneration of all inputs into production is registered. Apart from the payment for intermediate inputs, this concerns gross value added - see cell (3,2). Total value added is equal to Gross Domestic Product (GDP), at factor costs. This amounted to 4.63 billion guilders in 1938. GDP at market prices can easily be obtained by adding GDP at factor costs (cell 3,2) and indirect taxes minus subsidies (cell 4,1).

Row 3 gives the receipts of various categories of national primary inputs into production. The receipts from domestic industries are booked in cell (3,2) and from abroad in cell (3,10). Column 3 shows how net, nationally generated incomes are paid out to their institutional owners, either in the Netherlands (cell 4,3) or in the rest of the world (cell 10,3). Consumption of fixed capital is directly booked on the capital account - see cell (7,3).

Row 4 records the allocation of primary incomes to institutional sectors. In addition to Net National Generated Income at factor costs, these incomes consist of net indirect taxes (cell 4,1) and property income received from other sectors (cell 4,4) and from the rest of the world (cell 4,10). Property income to the rest of the world is booked in cell (10,4). This yields Net National Income (NNI), at market prices, as a balancing item of this account. NNI was 5.46 billion guilders in 1938. This is only marginally lower than GDP at market prices, as the exclusion of fixed capital consumption (8% of GDP) is counterbalanced by an almost equally

large surplus of factor income received from abroad. This income mainly originated from the Netherlands Indies - see also Maddison (1989).

Row and column 5 reveal the relationship between NNI and Net National Disposable Income (NNDI). Starting with NNI, current transfers from the rest of the world (cell 5,10) must be added and current transfers to the rest of the world (cell 10,5) subtracted to arrive at NNDI. Current taxes and national, intersectoral current transfers do not change total net disposable income; they are booked on the diagonal, in cell (5,5).

Row and column 6 describe the use of income. Disposable income is used for final consumption expenditures (cell 1,6) and the balancing item is Net National Saving (cell 7,6). This was equal to 605 million guilders, implying that 11% of Net National Disposable Income was saved. Addition of the consumption of fixed capital (cell 7,3) then yields Gross National Saving (1.01 billion guilders in 1938).

Row 7 shows how the Netherlands acquired the funds for capital accumulation: from their own net saving (cell 7,6), from fixed capital consumption (cell 7,3) and from capital transfers from the rest of the world (cell 7,11). The last of these three items accounted for 5% of the total. National, intersectoral capital transfers as well as net purchases of land and other non-produced assets in 1938 are not known. For that reason, the capital account is not subdivided in any of the subsequent tables. Column 7 contains the allocation of capital funds: changes in stocks (cell 1,7), gross fixed capital formation (cell 8,7) and capital transfers to the rest of the world (cell 11,7). The balancing item is Net Lending of the Nation (cell 9,7), equalling 255 million guilders, or almost 5% of NNI.

Account 8 serves to register: a) who (i.e., which sector) invests where (i.e., in which industry) and b) where (i.e., in which industry) does one invest in what (i.e., what kind of capital good). This means that a detailed SAM will show in which industry capacity is expanded. In the macro-table, this account is not very interesting; it just maps total fixed investment (981 million guilders) from the capital account (cell 8,7) to

the goods and services account (cell 1,8).

Row 9 contains the financial balances of the nation and of the rest of the world. Of course, these balances are the same, but for the reverse sign. Due to lack of data, the financial accounts cannot be shown in full. The empty column 9 has been deleted.

Accounts 10 and 11 concern the transactions of the rest of the world with the Netherlands; current transactions are booked in row and column 10 and capital transactions in row and column 11. Most of the items in these accounts have already been discussed above. The balancing item of account 10 equals the balance on current account of the Netherlands' balance of payments, on an accrual basis and viewed from the perspective of the rest of the world. This means that cell (11,10) shows the current external *deficit* of the Netherlands. It appears that in 1938 the Netherlands' current account showed a surplus of 208 million guilders, that is, roughly 4% of NNDI.

3.2. Classifications in a More Detailed SAM

The definition of classifications is a very important phase in the construction of a SAM (Keuning and De Ruijter, 1988). One of the advantages of a SAM format is the great flexibility in the choice of classifications.

In compiling a historical SAM, the availability of data plays a very important role in the choice of classifications. For instance, the household classification was largely determined by the 1935/36 Budget survey data. The classification of industries in the supply and use tables was based on the information available in both production statistics and accident statistics.

In the goods and services account, twenty-two categories are distinguished. All but one concern groups of products which are generated by a particular industry, and possibly also imported. The last category consists of imported services. The production account will be shown for

twenty-one industries, each of which produces one of the first twenty-one product groups. Manufacturing has been subdivided into fourteen and services into six branches. The classification has been harmonized with the one used in the present Dutch national accounts, the so-called Netherlands Standard Establishment Classification (SBI) 1974. Imputed bank services have been distinguished separately.

The generation of income account contains four value added categories: compensation of employees for breadwinners and non-breadwinners, net operating surplus/mixed income and fixed capital consumption. The distinction of two categories of labour income introduces a typical SAM-aspect in this accounting system. In the accounts for the allocation of primary income, the distribution of secondary income and the use of income, nine (sub)sectors have been distinguished: seven household subgroups, companies and government.

For lack of data on capital transfers, the capital account has not been disaggregated. On the account for fixed capital formation six industries will be shown. The financial balance account functions as a dummy account and such accounts are not subdivided. For the rest of the world, separate current and capital accounts have been included.

The classification of households plays a crucial role in a SAM. Conclusions regarding, for instance, income inequality and consumption patterns are based on household averages, and thus depend very much on how the population has been subdivided. For 1938, the households have been classified according to the occupation and employment status of the breadwinner: 1. agricultural labourer, 2. farmer, 3. blue collar worker, 4. white collar worker, and 5. self-employed outside agriculture. Besides, households with unemployed breadwinners and 'other' households (for instance: pensioners, rentiers) have been distinguished. A subdivision of employees into civil servants and private sector employees was considered but later abandoned because both their socio-economic position and their consumption patterns were very similar. The same holds for a distinction between urban and rural households. In this sense, the final classification has been determined by both data availability and analytic usefulness. This

taxonomy is summarized in figure 2.

Figure 2. The classification of households in the Netherlands, 1938

All households	Employees	Agricultural labourers	
		Blue collar workers	
		White collar workers	
	Self-employed	Agricultural	
		Non-agricultural	
	Recipients of property and transfer income		Recipients of unemployment benefits
			Recipients of pensions and other transfers

3.3. A Somewhat Disaggregated SAM

Table 2 presents a somewhat disaggregated SAM. A full-fledged (85x84) SAM for 1938 is presented in table A2.1. of the statistical annex. In fact, table 2 mainly serves a didactic purpose. As not all readers may know the ins and outs of the SAM-concept, a somewhat disaggregated matrix should facilitate the step from the macro-table to the big SAM. Each submatrix of table 2 is a disaggregation of the corresponding cell in table 1. In table 2, each subaccount is labelled, first according to its position in the aggregated SAM, and then according to a label derived from table A2.1.

The complete conventional use table is shown in the rows 1a-1p/v and 3a-3d. In the first set of rows, the intermediate consumption is specified in the columns 2a-2p/v. A specification of final consumption expenditure by category of goods and services and by subsector is given in columns 6a,c,d-6i. More than half of total private consumption (4412 mln gld) concerned industrial products. Households which primarily depended on wage income spent a bit more on agricultural and industrial products and a bit less on services than the other households. Column 7 shows the changes in stocks of goods and services. The change in livestock was 3 mln gld (cell 1a,7) and the stock of manufacturing products decreased with 183 mln gld. The full SAM in table A2.1 reveals that stocks of all manufactured goods were depleted except those produced by the wood and furniture industry. The submatrix (1a-1p/v, 8a-8c/f) shows fixed capital formation by product of origin and industry of destination. Investment in government services (278 mln gld) is recorded in column 8f of the big SAM and is thus part of column

Table 2. A somewhat disaggregated Social Accounting Matrix for the Netherlands, 1938 (million guilders)

ACCOUNT (Classification)	Goods & Services				Production				Gen of Prim Income				Allocation of Primary Income				Distribution of Secondary Income				Use of Income				Capital Formation				TO-TAL									
	Agri In- cult d vices		Ser- vices		Agri In- cult d vices		Ser- vices		Empl Bread win.		Oper Sur- plus		Fix Con		House- holds		Comp Gov		House- holds		Comp Gov		House- holds		Comp Gov		Ag- ric dus			In- Ser- vice		Cur- rent Cap- ital						
	1a	1b/o	1p/v	2a	2b/o	2p/v	3a	3b	3c	3d	4a,c,d	4b,e/g	4h	4i	5a,c,d	5b,e/g	5h	5i	6a,c,d	6b,e/g	6h	6i	7	8a	8b	8c/f	10	11										
Goods and Services	186	930-1116	174	669	23	1989	295	89		0	0	117	18					181	174			3	21			144		1389										
Production	950	4184	222	1724	406	0	205	1366		0	0	523	104					1279	1251			-183	42	289	553	963		6546										
Generation of Primary Income			118	719	1152	36	218	246	358	553	1234	23	157	224															3481									
Allocation of Primary Income	-66	314	220																										950									
Distribution of Secondary Income										2511	2214	275	459																4184									
Use of Income																														4105								
Capital																														1989								
Fixed Capital Formation																														500								
Financial balance																														2145								
Rest of the World																														404								
TOTAL	1389	6546	3481	950	4184	4105	1989	500	2145	404	2511	2214	1288	647	2617	2664	660	852	2252	2334	321	554	1064	63	290	628	1858	200	2252	2334	321	554	1064	63	290	628	1858	200

8c/f in this table. Government investment produced on own account, 70 mln gld, can be found in cell (1u,8f) of the full SAM and accounts for more than 90% of cell (1p/v,8c/f) in this table. Column 10 gives the exports of goods and services: less than 10% concerned agricultural products (144 mln gld). It appears that imports of agricultural products (cell 10,1a) were twice as high as exports.

The three columns of the goods and services account show the supply of goods and services by domestic industries (rows 2a-2p/v) and from abroad (row 10). For example, agricultural production, valued at factor costs, was 950 mln gld and imports of agricultural products were 319 mln gld. The domestic production of industrial products was almost four times as high as the imports. The block in the upper left-hand corner re-locates trade and transport margins (1116 mln gld) from trade to agricultural products (186 mln gld) and manufactured products (930 mln gld).⁵ The row vector containing indirect taxes minus subsidies (4i, 1a-1p/v) reveals that the government subsidized agricultural products with 66 mln gld. Manufactured products were more heavily taxed than services.

Block (2a-2p/v, 1a-1p/v) reveals which industries produced which goods and services. As in the construction of the 1938 SAM use was made of an input-output table instead of a set of supply and use tables, this make table is a diagonal matrix. The value added submatrix (rows 3a-3d, columns 2a-2p/v) breaks down GDP at factor costs (5038 mln gld, see table 1) into three industries and four value added categories: compensation of employees for breadwinners and non-breadwinners, operating surplus, including net mixed income of the self-employed, and consumption of fixed capital.

More than half (56%) of total wages was paid out by services industries. The distribution of wages over breadwinners and non-breadwinners was about the same in each industry. The ratio of the wages paid to breadwinners to total wages varied from 77% in agriculture and manufacturing to 83% in services (see table 2). Within manufacturing, rather great divergences in this ratio occurred (see table A2.1.), ranging from less than 65% in the

5. As it was not possible to separate trade margins and transport margins, they have been completely assigned to trade services, whereby transport services deliver their margins as intermediate inputs to trade - see table A2.1.

textile and wearing apparel and the leather and footwear industries to more than 88% in utilities. With the exception of domestic services, etc. (73%), the ratio in services industries was more than 80%, with a maximum of 91% in general government. Summarizing, relatively many married women and children were employed in the textile industry while, on the other hand, very few civil servants were married women or children.

In agriculture, net operating surplus/mixed income amounted to 67% of gross value added. This percentage was much lower in manufacturing (34%) and in services (43%). Later, we will see that this difference is largely due to a much smaller proportion of the self-employed in the work force of the latter two industries. The row vector (3d, 2a-2p/v) shows the consumption of fixed capital. In agriculture, this accounted for 4% of gross value added and in manufacturing and services for 10% and 8%, respectively.

In 1938, the compensation of employees to and from the rest of the world was negligible. Therefore, Net National Generated Income equalled Net Domestic Product and the disaggregation of net generated income (submatrix 4a,c,d-4i, 3a-3d) shows the allocation of domestic value added to national institutional sectors. The sector households received 2489 mln gld of wages. By definition, wages of breadwinners all accrued to wage-earners' households, but even the wages of non-breadwinners largely accrued to that category. On the other hand, the bulk of net mixed income was earned by non-wage-earners' households (1366 mln gld). Notice that this amount is also much larger than corporate net operating surplus, which is assigned to companies (690 mln gld). Naturally, a substantial part of mixed income accruing to households consists of a remuneration for the work of the self-employed. The rest of rows 4a,c,d and 4b,e/g show that households received 781 mln gld property income: 640 mln gld from companies, 122 mln gld from government and 19 mln gld from the rest of the world. Property income from abroad largely consisted of remittances of profits earned by foreign subsidiaries of Dutch corporations (see cell 4h,10). Subsequently, part of the total profits of these corporations was distributed to their shareholders; see e.g., cells (4a,c,d, 4h) and (4b,e/g, 4h). All in all, the largest share of property income was earned by non-wage-earners'

households. A more detailed review of income and outlay of household groups is presented in the next section of this paper.

Submatrix (5a,c,d-5i, 5a,c,d-5i) presents the redistribution of income among sectors. Households received 247 mln gld of social benefits from the government and 307 mln gld of pension benefits from companies. They paid 361 mln gld of taxes to the government and 334 mln gld of life insurance premiums and employers' social contributions to companies. Notice that the direct tax rate was significantly higher in non-wage-earners' households. Below, we will see that the same applies to their per household income. All current transfers from the rest of the world (2 mln gld) were received by the subsector other households.

Block (6a,c,d-6i, 5a,c,d-5i) shows the subsectors' net disposable income, available for consumption expenditure and saving. In columns 6a,c,d-6i, net savings appears in row 7. In 1938, more than half of total net saving originated in the sector companies, while the government contributed 18%. The net saving rate is much lower in the wage-earners' households (2%) than in the other households (5%).

Column vector (8a-8c/f, 7) shows the allocation of investment. An interesting comparison can be made with the distribution of depreciation by industry. It appears that in agriculture 37% of investment is to be considered as a replacement of existing production capacity. For manufacturing and services, these proportions are 54% and 36%, respectively.

The rest of the figures in this table are the same as in the macro-matrix (see table 1).

3.4. An Analysis of Standards of Living by Household Category

3.4.1. Number and Composition of Households

In 1938, the Netherlands had a population of over 8.5 million people. This

population lived in almost 2.2 million households. This implies an average household size of 4.0 persons. Table 3 presents a subdivision of the total number of households, the population, the labour force and (un)employment into seven household categories. Table 4 gives the distribution of these variables over household categories. It is referred to the Appendix for a description of the estimation method.

Table 3. Number of households, population, labour force and employment by household category, 1938

	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
1 Number of households	127833	226677	791758	225364	344842	310858	145000	2172332
2 Average household size	3.9	4.2	4.2	3.8	3.6	4.9	2.0	4.0
3 (1x2) Population	504650	960008	3314126	863194	1246654	1510700	284750	8684083
4 Without occupation	316143	517536	1976732	528246	714063	859288	284010	5196018
5 (3-4) Labour force	188508	442471	1337394	334949	532591	651412	740	3488065
6 Unemployment	11732	37100	83351	16380	17704	369400	119	535786
7 (5-6) Employment	176776	405371	1254042	318568	514887	282012	621	2952279
	%							
8 Labour force/population	37.4	46.1	40.4	38.8	42.7	43.1	0.3	40.2
9 Unemployment/population	2.3	3.9	2.5	1.9	1.4	24.5	0.0	6.2
10 Unemployment/labour force	6.2	8.4	6.2	4.9	3.3	56.7	16.1	15.4

Table 4. Distribution of households, population, labour force and employment over household groups

	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
	%							
1 Number of households	5.9	10.4	36.4	10.4	15.9	14.3	6.7	100.0
3 Population	5.8	11.1	38.2	9.9	14.4	17.4	3.3	100.0
4 Without occupation	6.1	10.0	38.0	10.2	13.7	16.5	5.5	100.0
5 (3-4) Labour force	5.4	12.7	38.3	9.6	15.3	18.7	0.0	100.0
6 Unemployment	2.2	6.9	15.6	3.1	3.3	68.9	0.0	100.0
7 (5-6) Employment	6.0	13.7	42.5	10.8	17.4	9.6	0.0	100.0

In 53% of the households a wage labourer (agricultural labourer, blue or white collar) was the breadwinner. The breadwinner was self-employed (agricultural or non-agricultural) in 26% of the households and unemployed in 14% of the households. Finally, roughly 7% of the families principally depended on other transfer or property income. Concerning the industry of employment of the breadwinner, it strikes that only 16% of the households received their main income from agriculture.

Surprisingly, households with unemployed breadwinners were typically the largest: 4.9 persons on average. Farmers' and blue collar workers' households were commonly bigger than those of the self-employed outside agriculture and white collar workers. As expected, the smallest mean

household size was found in the category other households (pensioners, rentiers, etc.). As a consequence of these differences in household size, almost 17.5% of the population lived in a household where the breadwinner was unemployed.

The total labour force consisted of almost 3.5 million persons, that is 40% of the population. The lowest labour force participation rate was found in the category other households and the highest in the categories self-employed and unemployed households. Particularly in farmers' households, unpaid family workers were a common phenomenon. In the case of unemployed households, their meagre incomes may have played a role in the relatively high labour force participation of non-breadwinners.

In table 3, unemployment refers to breadwinners as well as non-breadwinners. Of course, the former (311,000 persons) all belong to the unemployed households. The latter have been classified in the household they were member of, irrespective of their occupation. For instance, in the 792,000 blue collar households lived 83,000 unemployed non-breadwinners. In total, 15% of the labour force was unemployed and 69% of them were in the category unemployed breadwinners. The unemployment rate was lowest in the category of the self-employed outside agriculture (3%) and highest, of course, in the category of the unemployed (57%). Notice, however, that in the latter category not less than 43% of the labour force was working. Obviously, the work of the non-breadwinners was a substantial source of supplementary income in this group. This is further elaborated in the next section of this paper.

Table 3 shows the unemployed breadwinners as a separate category. If this category is removed from the household classification and its members re-classified according to their former occupation and employment status (agricultural labourers, blue collar workers, self-employed etc.), it can be located which types of households suffered most from unemployment, that is, breadwinners and non-breadwinners taken together. The highest percentage (23%) occurred in the agricultural labourers' households and the lowest (8%) in the farmers' households.

3.4.2. Distribution of Income and Outlay

A summary of households' income and outlay is presented in table 5, which is a slight re-arrangement and extension of the relevant parts of the full SAM. The relation between this table and table A2.1 is indicated by the vector numbers in the row headings. The re-arrangement of table A2.1 entails that in table 5 it is not shown from whom household categories receive their incomes and to whom they pay their outlays. The full SAM is extended in two respects: first, net operating surplus/net mixed income is broken down into both components, whereby net operating surplus accruing to households is equal to the imputed rent of owner-occupied housing. In all other cases, profits of a household enterprise consist of a remuneration for both self-employed labour input and other primary inputs, so that the next SNA speaks of 'mixed income'.

Table 5. Income and outlay by household category, 1938

Item (location in full SAM)	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
million guilders								
Compensation of employees (4a/g,3a+3b)	104	27	1370	810	47	131	0	2489
of which breadwinners (4a/g,3a)	90		1136	763				1989
non-breadwinners (4a/g,3b)	14	27	234	47	47	131	0	500
Mixed income, net (4a/g,3c;partly)	11	360	0	0	930	0	0	1301
Operating surplus, net (4a/g,3c;partly)	12	28	47	19	32	14	2	154
Dividends, rents, etc. (4a/g,4h+4i+10)	0	162	0	138	346	8	127	781
Pension benefits etc. (5a/g,5h)	0	0	21	43	43	10	190	307
Social benefits (5a/g,5i)	10	1	31	1	7	189	8	247
Unrequited current transfers from the rest of the world (5a/g,10)	0	0	0	0	0	0	2	2
Total resources	137	578	1469	1011	1405	352	329	5281
Premiums pension & life insurance (5h,5a/g)	3	6	40	67	77	12		205
Employers' social contributions (5h,5a/g)	5	1	65	50	4	4		129
Current taxes (5i,5a/g)	2	41	34	99	151	2	32	361
Consumption (1,6a/g)	125	473	1323	757	1122	338	274	4412
Saving, net (7,6a/g)	2	57	7	38	51	-4	23	174
Total uses	137	578	1469	1011	1405	352	329	5281

The second extension refers to a subdivision of household transfers to companies into a) pension and life insurance premiums and b) employers' social contributions (re-routed from industries to compensation of employees to households' primary incomes to companies, in accordance with the SNA-conventions).

Obviously, mixed income almost completely accrues to farmers and the other self-employed category. For the rest, only agricultural labourers had noticeable income from own production of food stuffs. Dividends, rents etc. were mainly received by the 'other' households category, the self-employed households categories and the white collar workers. Unrequited current transfers from the rest of the world have been assumed to accrue entirely to the other households (rentiers and such). On the expenditure side, other households do not pay transfers to companies. Notice the negative saving in the unemployed households' category.

The inequality among different household categories becomes evident from table 6, which presents the figures of the previous table on a per capita basis. On average, each person had 608 guilders available for spending. However, considerable differences between household categories existed. For

Table 6. Per capita income and outlay by household category, 1938

Item (location in full SAM)	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
	guilders							
Compensation of employees (4a/g,3a+3b)	206	28	414	938	38	87	0	287
of which breadwinners (4a/g,3a)	178		343	884				229
non-breadwinners (4a/g,7b)	28	28	71	54	38	87	0	58
Mixed income, net (4a/g,3c;partly)	22	375	0	0	746	9	7	150
Operating surplus, net (4a/g,3c;partly)	24	29	14	22	26	9	7	18
Dividends, rents, etc. (4a/g,4h+4i+10)	0	169	0	160	278	5	446	90
Pension benefits etc. (5a/g,5h)	0	0	6	50	34	7	667	35
Social benefits (5a/g,5i)	28	1	9	1	6	122	28	28
Unrequited current transfers from the rest of the world (5a/g,10)	0	0	0	0	0	0	7	7
Total resources	271	602	443	1171	1127	233	1155	608
Premiums pension & life insurance (5h,5a/g)	6	6	12	78	62	8	0	24
Employers' social contributions (5h,5a/g)	10	1	20	58	3	3	0	15
Current taxes (5i,5a/g)	4	43	10	115	121	1	112	42
Consumption (1,6a/g)	248	493	399	877	900	224	962	508
Saving, net (7,6a/g)	4	59	2	44	41	-3	81	20
Total uses	271	602	443	1171	1127	233	1155	608

a member of an unemployed household only 233 gld was available and the agricultural labourers (271 gld per capita) were hardly better off. The resources per head for the blue collar workers (443 gld) were still far below the country's average. The farmers were on average. The highest per capita income (1171 gld) was for the white collar workers, nearly twice the overall average. The mean incomes of the self-employed and the other

households were above 1100 gld as well. Total income per capita for the unemployed and the agricultural labourers contrasts sharply with, for instance, just the pensions (667 gld) and dividends etc. (446 gld) received by the 'other households'.⁶

To a somewhat less extent, these differences are also reflected in per capita consumption expenditure. The national average was 508 gld and this varied from 224 gld for the unemployed to 962 gld for the other households.

Table 7 presents for each household category the income and outlay items as a percentage of total resources and uses, respectively. At a macro-

Table 7. Income and outlay as a percentage of total resources/uses by household category, 1938

Item (location in full SAM)	Agricultural labourers	Farmers	Blue collars	White collars	Self-employed	Un-employed	Other	Total
	%							
Compensation of employees (4a/g,3a+3b)	75.9	4.7	93.2	80.1	3.3	37.2	0.0	47.1
of which breadwinners (4a/g,3a)	65.7		77.3	75.5				37.7
non-breadwinners (4a/g,3b)	10.2	4.7	15.9	4.6	3.3	37.2	0.0	9.5
Mixed income, net (4a/g,3c;partly)	8.0	62.3	0.0	0.0	66.2	0.0	0.0	24.6
Operating surplus, net (4a/g,3c;partly)	8.8	4.8	3.2	1.9	2.3	4.0	0.6	2.9
Dividends, rents, etc. (4a/g,4h+4i+10)	0.0	28.0	0.0	13.6	24.6	2.3	38.6	14.8
Pension benefits etc. (5a/g,5h)	0.0	0.0	1.4	4.3	3.1	2.8	57.8	5.8
Social benefits (5a/g,5i)	7.3	0.2	2.1	0.1	0.5	53.7	2.4	4.7
Unrequited current transfers from the rest of the world (5a/g,10)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Total resources	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Premiums pension & life insurance (5h,5a/g)	2.2	1.0	2.7	6.6	5.5	3.4	0.0	3.9
Employers' social contributions (5h,5a/g)	3.6	0.2	4.4	4.9	0.3	1.1	0.0	2.4
Current taxes (5i,5a/g)	1.5	7.1	2.3	9.8	10.7	0.6	9.7	6.8
Consumption (1,6a/g)	91.2	81.8	90.1	74.9	79.9	96.0	83.3	83.5
Saving, net (7,6a/g)	1.5	9.9	0.5	3.8	3.6	-1.1	7.0	3.3
Total uses	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

level, almost half of the resources consisted of compensation of employees. Mixed income and dividends, rents, etc. contributed 25% and 15%, respectively. More than 10% of the resources were unrequited transfers and about half of these transfers were social benefits. As expected, the household categories derived their incomes from quite diverging sources. Paid employees categories received their main income from compensation of employees. For the white collar workers, 14% of their resources came from

6. The divergence in average incomes per household is somewhat smaller, as poorer families were typically larger (cf. table A2.2).

dividends, etc. The 'other households' income consisted for the greater part of pension benefits (58%) and dividends, etc. (39%). More than half of the income of the unemployed household were social benefits. In addition, an important source of income for this category were the wages earned by non-breadwinners.

Naturally, consumption expenditure was the major outlay component: 83.5% on average and even 96% for the unemployed. For the household sector as a whole, 3.3% of total (net) resources went to net saving. In the farmers' category, this percentage was almost 10%, whereas the unemployed had negative saving.

3.4.3. Composition of Final Consumption Expenditure

In this section, private final consumption expenditure by type of goods and services and by household category is presented. The classification of goods and services is, as far as possible, consistent with the one in the present national accounts. The relation between the present classification and the classification in the 1935/36 Budget survey is presented in table A2.3 of the annex. The relation between this extended classification and the one in the full SAM is shown in table A2.4.

Detailed estimates of consumption expenditures are given in table A2.5. Based on these figures, table 8 shows the expenditure pattern in each household category. On average, 31.8% of the consumption budget went to food, 5.5% to tobacco and beverages, 16.5% to durables, 16.5% to dwelling services, 1.0% to consumption abroad and 28.8% to other goods and services.

As expected, the consumption patterns of the household groups differed considerably. In general, Engel's law seems to hold. The proportion of total consumption spent on food was substantially higher in low income households, such as agricultural labourers than in high income households, such as the self-employed (53% versus 19%). Somewhat surprisingly, this low income elasticity of demand seems to apply to all sub-categories of food

Table 8. Total final consumption expenditure per capita and expenditure shares by household category, 1938

	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
Final consumption expenditure per capita	249	493	399	877	900	224	962	508
	%							
Food	53.2	35.3	39.7	23.3	19.5	46.1	34.4	31.8
Groceries	17.8	11.8	12.2	7.1	6.3	15.4	10.7	10.1
Dairy products	7.3	5.6	5.7	3.2	2.7	5.7	5.1	4.5
Bread and pastry	13.6	7.0	9.0	4.2	3.4	12.1	7.7	6.8
Potatoes, vegetables and fruit	6.6	3.8	5.2	3.8	3.5	6.3	4.6	4.5
Meat and meat products	7.2	6.2	6.9	3.9	2.9	6.1	5.9	5.2
Fish and fish preserves	0.8	0.8	0.8	1.1	0.7	0.6	0.4	0.8
Stimulants	4.0	6.3	5.7	5.4	5.5	4.7	5.5	5.5
Tobacco products	2.4	3.4	3.9	2.6	1.8	3.3	3.7	3.0
Beverages	1.6	3.0	1.8	2.8	3.7	1.5	1.8	2.6
Durable consumer goods	14.4	18.1	15.5	18.2	17.6	12.0	15.2	16.5
Textiles and clothing	6.4	11.0	8.2	9.9	9.0	5.6	8.1	8.7
Footwear and leatherware	4.0	1.9	2.3	1.7	1.7	2.4	1.8	2.0
Household articles and interior decorating	4.1	5.2	5.0	6.6	7.0	4.1	5.2	5.7
Durable consumer goods n.e.c.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dwelling services	14.1	13.1	18.1	15.6	16.6	17.3	16.4	16.5
Housing	9.6	9.1	12.5	10.8	11.0	11.5	11.3	11.2
Electricity, gas and water	1.6	1.9	3.7	3.4	4.0	3.3	3.7	3.4
Other dwelling services	2.9	2.1	1.9	1.3	1.6	2.5	1.4	1.8
Other goods and services	14.3	27.3	20.7	35.5	39.0	19.8	27.4	28.8
Expenditure in hotels, cafés and restaurants	0.0	4.2	3.1	4.1	3.1	2.1	6.2	3.4
Entertainment services	1.9	2.2	2.5	4.2	5.1	1.3	2.0	3.3
Transport and communication	2.2	3.3	1.7	4.9	5.6	1.6	2.0	3.4
Health services	3.4	3.2	3.1	3.3	3.3	5.4	3.1	3.4
Goods and services n.e.c.	6.8	14.3	10.2	19.0	21.9	9.4	14.1	15.2
Consumption expenditure abroad	0.0	0.0	0.4	2.0	1.7	0.0	1.1	1.0
Final consumption expenditure of households	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

products distinguished in this table, except fish. Even the meat budget share is highest in agricultural labourers' households.

The purchases of less essential goods were more income elastic. For example, the share of beverages in total consumption was much lower for the unemployed (1.5%) than for the self-employed (3.7%). The same trend is visible in the category 'other goods and services'.

Nowadays, there is wide-spread opinion that every household should spend a roughly equal proportion of his income on housing. In 1938, this was more or less the case. The deviation from the average (11%) is rather small. As both agricultural subgroups spend relatively a bit less on housing, it might be inferred that the average rents were somewhat lower in rural areas. In this respect, the relative spending on both other categories of dwelling services is also worth mentioning. The share of electricity, gas and water in total consumption was much lower for the agricultural

households than for all non-agricultural ones. With regard to the other dwelling services however, the share in agricultural households was higher than in the typically urban households, except the unemployed. Possibly, these figures reflect the different ways the houses were heated: relatively less gas and more fuel (which is part of 'other dwelling services') was used in rural areas.

Notably, the relative expenditure on entertainment services was high in the categories self-employed outside agriculture (6.8%) and white collar workers (6.2%). In the other household categories, this percentage did not exceed 3.1%. The spending on hotels, cafés and restaurants was on average 3.4%, varying from 0.0% for the agricultural labourers to 6.2% for the other households. The budget share of health services was practically the same in all household groups, except in the unemployed category where this percentage was substantially higher.

Table A2.6 exhibits per capita expenditures on goods and services. The differences among household groups were much greater for durable consumer goods and other goods and services than for the food categories. Despite the far greater food budget share in low income households, persons in high income households still spent more on food. In particular this applies to members of 'other' households. On the other hand, members of the other high income groups, the white collar workers and the self-employed outside agriculture, consumed more other goods and services, especially entertainment services, transport and communication and goods and services n.e.c.

3.5. Employment

In connection with the 1938 SAM, various non-monetary data have been compiled. Evidently, demographic data are needed to evaluate the socio-economic situation of household groups. However, another important objective of the construction of a SAM and related tables is to derive a whole range of macro-economic indicators from one integrated and consistent

meso-level data set: a System of Economic and Social Accounting Matrices

and Extensions (SESAME).⁷ If, for instance, unemployment and an income distribution indicator can be related to GDP and the national current account balance, this increases both the relevance and the reliability of these aggregate figures. The underlying SAM-framework can then be used for the construction of all kinds of models which may include feed-backs from non-monetary to monetary variables at the meso-level. Subsequently, simulation experiments on the basis of such models would yield consistent values for the complete set of indicators.

An important non-monetary extension relates to tables on employment and unemployment which are consistent with the detailed labour income data as shown in the SAM proper. This implies that the labour income submatrices by labour type and industry on the one hand and by household group and labour type on the other hand are decomposed into a volume component (employment) and a price component (average wage rates). Subsequently, total employment by household group can be juxtaposed with the labour force to obtain insight into the size and location of unemployment.

In the 1938 SAM, two categories of labour have been distinguished: breadwinners and non-breadwinners. A breadwinner was defined as a married man or an unmarried person over a certain age (i.e. over 29, except 20% of the age group 25-29). This cut-off served to arrive at a total number of breadwinners which is equal to the total number of households. All other persons were thus considered as non-breadwinners. In order to link these labour categories to the industries in which they worked, some simplifying assumptions had to be made: on the one hand, married children were supposed not to live with parents who also obtained an income and on the other hand, all unmarried children below the cut-off age were supposed to live at their parents' home. The non-breadwinners have been split into married women and unmarried children still living at home. An extended description of the estimation method is given in the appendix.

7. This idea is further elaborated in the SAM-chapter for the next SNA (United Nations, 1992) and in Keuning and de Ruijter (1988).

Tables A2.7, A2.8 and A2.9 present detailed employment figures for twenty industries and three categories of workers. The classification of industries is the same as in the full SAM, except for real estate. Employment in this industry was insignificant and thus it has been combined with services n.e.c. Of course, imputed bank services are also not included in the tables on employment. Table 9 is based on these annex tables and gives the distribution of employment in agriculture, industry and services over breadwinners, married women and children. On average, 58% of the employed were breadwinner and 6% married women. Particularly in industry, married women made up an almost negligible part of the total number of employees. On the contrary, married women accounted for 10% of employment in agriculture. The proportion of children in agricultural employment was however rather small.

Table 9. Employment of breadwinners and non-breadwinners (row percent), 1938

Industry (location in full SAM)	Bread- winners	Married women	Children	Total
	%			
Agriculture and fishery (3a+3b,2a)	60.8	9.8	29.3	100.0
Industry (3a+3b,2b/o)	58.7	1.4	39.9	100.0
Services (3a+3b,2p/v)	56.6	6.4	37.0	100.0
Total (3a+3b,2)	58.1	5.5	36.4	100.0

The figures of table A2.8 show that the share of married women in employment differed considerably among industries. In metal manufacturing and in construction married women made up only 0.3% of employment. This percentage was much larger in textiles (3%) and wearing apparel manufacturing (6%). Apart from agriculture, the highest share of women in total employment was found in trade, hotels etc. (10%) and in business services n.e.c. (7%). In government services, relatively few married women were employed (2% of the total).

The share of breadwinners in employment ranged from only 39% in wearing apparel manufacturing to 74% in transport, storage and communication. In the former industry, not less than 55% of employees were children: the highest percentage of all industries. High percentages of children were also found in textiles and in leather and footwear manufacturing. The lowest share of children (29%) was in trade, hotels etc.

In table A2.9, the distribution of breadwinners, married women and children over industries is presented. 21% of the breadwinners was employed in agriculture and fishery, 32% in industry and 46% in services. For married women, agriculture and fishery and trade, hotels etc. were the major industries of employment. A large part of the children (23%) was engaged in services n.e.c. (mainly: domestic servants), but also in agriculture (17%) and trade, hotels etc. (13%) many of the working children were employed. This table shows that the distribution of the three categories of employees over industries differs rather much. Especially married women were concentrated in a few industries.

Table 10 presents a categorization of breadwinners by industry and by household background. In fact, this table is part of a three-dimensional table of employment by industry by labour category by household group. For this reason, there exists no direct link to specific cells in the full SAM. Even at the high level of aggregation shown in table 10, there existed great differences by industry. On average, two third of the breadwinners were paid labourers (blue and white collar workers and agricultural labourers). In industry this proportion was 80%, in services 71% and in agriculture it was very low (37.5). Of course, this is mirrored by the proportions of self-employed breadwinners. As expected, the relative share of white collar breadwinners in the work force was the largest in services.

Table 10. Household background of the employment of breadwinners by industry, 1938

Industry	Agricultural labourers	Farmers	Blue collars	White collars	Self-employed	Total
	%					
Agriculture and fishery	34.7	61.6	2.0	0.8	0.9	100.0
Industry			73.9	6.5	19.6	100.0
Services			47.3	23.4	29.3	100.0
Total	7.4	13.2	46.1	13.1	20.1	100.0

Applying a more detailed industry breakdown reveals even greater differences - see tables A2.10 - 12. For instance, in mining and quarrying 94% of the breadwinners were blue collar workers and in banking and insurance only 15%. In the latter industry the highest percentage white collar workers occurred: 78%. Within manufacturing, relatively many white collar workers were employed in printing and publishing (15% of the work force) and in petroleum and chemicals manufacturing (13%). A lot of small

businesses and thus a high percentage of self-employed breadwinners in the work force were found in trade, hotels etc. (56%), wearing apparel manufacturing (45%), wood and furniture manufacturing (35%) and construction (30%).

Table A2.12 clearly demonstrates the importance of the government for the employment of white collar breadwinners (engaging 34% of them). Almost half of the self-employed breadwinners ran a business in the trade, hotels, etc. industry.

4. Comparability of the 1938 SAM and the Socio-economic Accounts for 1987

Contrary to the reference year 1938, for 1987 a full-fledged SAM is not yet available. In this study, the 1987 data for household categories have been based on the Socio-economic accounts compiled by the CBS (CBS, 1992). These accounts roughly amount to a disaggregation of the household sector in the National accounts, see CBS (1988). The main differences are the exclusion of private non-profit institutions and another way of booking some transactions; transactions with pension funds and life insurance institutions on the one hand and transactions related to medical care on the other are shown from the point of view of households.

In the Socio-economic accounts, the total population is first divided into the population in institutional households (old age homes, etc.) and in private households. Subsequently, private households are split into forty-six household types, distinguishing households with as main source of income:

- a) private sector wages;
- b) public sector wages;
- c) entrepreneurial income from agriculture and fishing;
- d) entrepreneurial income from trade, restaurants and hotels and repair of consumer goods;
- e) entrepreneurial income from business and personal services;
- f) entrepreneurial income from economic activities n.e.c and property income;
- g) transfers in view of old age; and
- h) other transfers.

All these subgroups except the self-employed are further subdivided according to household size (1, 2, 3 and 4 or more members; except subgroup g) which was only split into two: 1 and 2 or more members) and income class (three classes each containing one third of the total number of households).

In a comparison of the 1938 and 1987 situations, the same classification of households should ideally be used. In our case, this met with some difficulties. For instance, in the Socio-economic accounts no distinction

between blue and white collar employees is made. Moreover, this source does not contain information on the branch of industry in which the wages have been earned, and therefore it is not possible to separate agricultural labourers from the other employees.

In the comparison, the 1938 household classification has been maintained as far as possible. This means, first, that the agricultural labourers and the blue collars were combined in 1938. Secondly, the 1987 groups a) and b) were aggregated, and so were d) - f). Thirdly, the 1987 households with wages as main source of income have been split into the categories blue and white collar workers on the basis of a retabulation of basic data from the Household Budget Survey. This new print-out showed for each of the 24 wage-earning subgroups distinguished in the Socio-economic accounts, the number of households and the average household size, net disposable income and consumption expenditure by two sub-classes, depending on the occupational category of the household head. Subsequently, for each wage-earning subgroup the above four indicators from the Budget Survey have been scaled to the concomitant Socio-economic Accounts data, without altering the relative figures for blue and white collar workers, respectively. Finally, the figures by wage-earning subgroup have been added to arrive at two wage-earning classes: blue collar workers and white collar workers.

A next problem concerned the category 'unemployed households'. In the 1938 SAM, this exclusively refers to households in which the breadwinner was unemployed. In the 1987 classification, this category includes households that mainly depended on all kinds of other social benefits, like social assistance benefits, social insurance benefits in view of survivors, disability and sickness, study grants or alimony. Among these kinds of households, a considerable number could just as well be viewed as 'hidden unemployed'. Nevertheless, it should be realized that the definition of this group is broader in 1987 than in 1938.

In 1938, the subgroup 'other households' incorporates not only pension recipients, but also households with property income as their main source of income. In the Socio-economic accounts, the latter category is not given separately and therefore it is combined with the self-employed outside

agriculture in our 1987 data. Table A2.13 of the annex gives the complete relationship between both household classifications.

For the purpose of a comparison with the 1938 estimates, a few adjustments of the Socio-economic accounts were necessary. For instance, transactions with regard to medical care have been distributed among subgroups, following Van der Werf and Van de Stadt (1989). Part of the premiums for pension funds and life insurance have been booked as household consumption expenditures and not as current transfers.

5. A Comparative Analysis of the Household Situation in 1938 and 1987

5.1. Number and Composition of Households in 1938 and 1987

The growth rate of the Dutch population between 1938 and 1987 was 69%, while the number of households increased by 163%. This means that the average household size decreased substantially: from 4.0 to 2.5. The distribution of households over the subgroups was radically different in both years. Table 11 shows that in 1987 the number of farmer households was only two-fifth of the 1938 figure. In relative terms, this fall is even more pronounced: from 10% of the total just before World War II to only 1.6% in 1987. It is perhaps even more surprising that the number of self-employed households outside agriculture also decreased in absolute terms between 1938 and 1987. Partly, this is due to the fact that the fiscal regime has induced many self-employed to convert their firm into a small corporation. As a consequence, these persons are no longer registered as self-employed but as (white collar) employees. Another reason for the fall in the number of self-employed is of course that many of them have not been able to cope with the competition from the large corporations. All in all, in 1938 still more than a quarter of the households were headed by an entrepreneur and in 1987 this share had fallen to 7%.

Table 11. Number of households and population, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
1 Number of households (x 1000)							
1938	227	920	225	345	311	145	2172
1987	92	1035	2174	302	947	1159	5709
2 Average household size							
1938	4.2	4.2	3.8	3.6	4.9	2.0	4.0
1987	3.9	2.9	2.9	2.8	2.1	1.5	2.5
3 (1x2) Population (x 1000)							
1938	960	3819	863	1247	1511	285	8684
1987	362	3032	6334	857	2007	1778	14370 ^b
4 Proportion of total number of households (%)							
1938	10.4	42.3	10.4	15.9	14.3	6.6	100.0
1987	1.6	18.1	38.1	5.3	16.6	20.3	100.0
5 Proportion of total population (%)							
1938	11.1	44.0	9.9	14.4	17.4	3.3	100.0
1987	2.5	21.1	44.1	6.0	14.0	12.4	100.0

a) Including agricultural labourers.

b) Excluding 292,000 persons in institutional households.

During the fifty years which have elapsed between both reference years, the proportion of blue collar employee's households has fallen

considerably, from 42.3% to 18.1%. This was roughly compensated by an increase in the share of white collar employee's households, from 10.4% to 38.1%. In fact, the white collar employees constituted by far the largest group in 1987, while in 1937 they were still less numerous than the farmers. These trends clearly illustrate the expansion of the middle class after World War II. An enormous increase also occurred in the category 'other' households (mainly depending on transfers in view of old age), despite the fact that in the 1987 accounts the rentiers no longer belonged to this group. The relative share of this category more than tripled, from 6.6% to 20.3%, and this clearly reflects the longevity of the average pensioner in 1987 when compared to his grandparent.

The relative size of the unemployed households' group increased from 14.3% to 16.6%. However, it should be realized that in 1987 this category was defined more broadly. To give an indication: in that year, on average 601,000 people claimed an unemployment benefit, while 782,000 received a labour disablement benefit, 171,000 were entitled to a pension under the General Widows and Orphans Act, and 184,000 were living independently, under 65 years of age, not 'unemployed' and getting regular payments under the National Assistance Act. Though not all of these recipients of 'other' transfers were breadwinners, it is clear that a substantial part of the 'unemployed' group depended on transfers that were not unemployment benefits. On the other hand, if we had applied the broad definition of this category in 1938 as well, its size would not have increased very much (circa +30,000 households). From this we conclude that the proportion of households which mainly depended on transfers, excluding pensions and old age benefits, was even somewhat larger in 1987 than in 1938.

Regarding the population in both years, it strikes that the share of the population in unemployed households was significantly higher in 1938: 17.4% versus 14.0%. This elicits the fact that the average household size in the unemployed category was very much smaller in 1987 (2.1 persons vs. 4.9 in 1938). In 1938, the largest households were typically found in the unemployed category, whereas in 1987 households living on transfers were generally the smallest. To some extent, this divergence may have been caused by the fact that better unemployment benefits in 1987 no longer

prevented younger unemployed people from living on their own. The same may have applied to the pensioners, whose average household size also fell, from 2.0 to 1.5. Another interesting comparison can be made for blue collar workers and white collar workers. Whereas in 1938 the average household was 10% bigger in the former category, in 1987 this gap had disappeared. Tentatively, we conclude from table 11 that in the prewar years the family size was characteristically somewhat smaller in richer household groups, in contrast with the more recent past when the smallest households were typically found among the economically inactive (unemployed, pensioners, etc.).

5.2. Distribution of Income and Outlay in 1938 and 1987

Table 12 shows per capita and per household gross disposable income, final consumption expenditure and gross saving by household group in both years. It is obvious that the distribution of income among socio-economic categories has become much less skewed in the past 50 years. Whereas in 1938 average per capita disposable income in the richest subgroup was 4.72 times as high as in the poorest subgroup, this ratio was only 2.23 in 1987, that is 53% lower. Analogously, the between-subgroup Gini-index dropped from .48 to .13 (-74%). The decrease in inequality of per capita consumption expenditures has also been drastic: the ratio between the highest and the lowest subgroup average dropped from 4.29 to 1.70, or 60%, and the Gini-index fell from .26 to .07 (-72%).⁸

Table 12. Per capita and per household income and outlay by household category, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
PER CAPITA							
1938	guilders						
Gross disposable income	575	382	921	979	221	1043	536
Final consumption	493	379	877	900	224	962	508
Gross saving	82	2	44	79	-3	81	28
Saving rate	0.14	0.01	0.05	0.08	-0.01	0.08	0.05
1987	guilders						
Gross disposable income	27061	13072	17750	29111	15044	23379	17994
Final consumption	12431	13727	17148	18002	15809	21193	16672
Gross saving	14630	-655	603	11109	-764	2186	1322
Saving rate	0.54	-0.05	0.03	0.38	-0.05	0.09	0.07
PER HOUSEHOLD							
1938	guilders						
Disposable income	2435	1584	3528	3541	1074	2048	2143
Final consumption	2087	1575	3359	3254	1087	1890	2031
Gross saving	349	10	169	287	-13	159	112
1987	guilders						
Disposable income	106479	38272	51730	82609	31884	35865	45292
Final consumption	48914	40191	49973	51085	33504	32511	41964
Gross saving	57565	-1919	1757	31524	-1620	3354	3328

a) Including agricultural labourers.

At the national level, income has increased somewhat faster than consumption expenditure, so that the gross household saving rate rose from 5% to 7%. This saving concerns freely disposable money, that is, including pension fund and life insurance benefits and excluding the analogous premiums as well as imputed interest on pension and life insurance reserves.

Per capita, the self-employed households and the 'other' households came out on top in both years, while the blue collar workers and the unemployed were worst off. Notice that the 1987 disposable income per capita of the unemployed is higher than that of blue collar workers, but that the reverse applies to the per household incomes. The position of farmers in 1987 is somewhat puzzling: in terms of disposable income they seemed to be quite well off, but their consumption level appears a bit low, at least when measured per capita. The comparatively large size of their families plays an important role here. Tentatively, we therefore conclude that the

8. It goes without saying that the overall inequality among individual households is far greater than is suggested by these figures. In addition, our conclusions concerning the trends in inequality are based on the assumption that the within-subgroup distributions are roughly the same in both years. Notice, however, that from a policy point of view, changes in inequality among broad socio-economic subgroups are probably more relevant than shifts in the relative position of each single household.

relative socio-economic position of farmers was better in 1987 than in 1938.

In 1938, the rankings of household subgroups according to their per capita incomes and expenditures are about the same as the rankings according to their per household incomes and expenditures. In fact, only the category 'other' households drops some positions in the former sequences. In 1987, however, these rankings are radically different. In other words, the relative household size plays a crucial role in material welfare comparisons in 1987. Probably, a fair comparison would imply the conversion of children into adult equivalents, so that they are neither neglected (as in per household figures) nor count as a full person (as in per capita figures).

The enormous divergence in the 1987 gross saving rates by household subgroup deserves further discussion. On the one hand, these rates appear quite high for farmers and other self-employed households. However, it must be realized that these groups may have financed a large proportion of investment in their firms out of these savings. Total investment by households in unincorporated firms and dwellings was about 25.5 billion guilders in 1987 and this is still considerably higher than our estimate of gross household saving (19 billion guilders, of which almost 15 billion in self-employed households).

On the other hand, both the gross saving rates and the per capita gross disposable incomes of the employee subgroups seem rather low. In fact, this problem is exacerbated in the published Socio-economic Accounts. In our computations, we have already taken into account that a recent revision of the national accounts led to a higher estimate for wages and salaries and a lower estimate for mixed income. Besides, a crude comparison of total mixed income in the national accounts with the amount registered by the Income Statistics has motivated us to shift an additional 4.5 billion guilders of income from both self-employed subgroups to both wage-earning subgroups. For the rest, we have not altered the Socio-economic Accounts data. As a result of these considerations we think that the 1987 inequality among subgroups is actually not greater than what appears from table 12.

Moreover, our findings illustrate that a distinction of household subsectors already in the compilation phase of the national accounts might perhaps lead to more reliable estimates at the national level for transaction categories like compensation of employees and mixed income.

Table A2.14 gives the distribution of total resources and uses over transaction categories by household subgroup. Net operating surplus refers to imputed rents from owner-occupied housing and net mixed income amounts to profits in unincorporated firms. Concerning the national total distribution of resources, the shares of compensation of employees and of pension benefits are much larger in 1987 than in 1938. The relative share of imputed house-rents increases only a bit and surprisingly, this also applies to social benefits minus premiums. These larger proportions are counterbalanced by an enormous decrease in the shares of mixed income and of dividends, rents, etc. Concerning the outlays, employers' social contributions, premiums for pension funds and life insurance, and taxes on income, wealth, etc. have become more important in the last 50 years, so that relatively less was left for consumption purposes.

A striking result is that in 1987 all household groups depended to a much larger extent on a single category of income: compensation of employees in the wage-earning subgroups, mixed income in the farmers and other self-employed subgroups, social benefits in the unemployed subgroup and pension benefits in the 'other' category. For instance, the 1987 proportion of wages and salaries in total income of households with unemployed breadwinners was less than a third of the concomitant 1938 share. For the outlays, an interesting comparison can be made between the ranking of household subgroups according to direct tax rates and the one according to disposable income per capita or per household. It appears that in both years these rankings are almost the same if disposable income is considered on a per household basis. This implies that in both years the income tax system has led to a less unequal distribution of incomes.

Table 13 presents the growth in aggregate final consumption expenditure between 1938 and 1987. In nominal terms, the 1987 value was almost fifty-five times higher than the 1938 figure. However, total inflation during

this half-century was more than one thousand percent (cf. CBS, 1991: table H 7), so that the volume of final consumption expenditure almost quintupled in this period. Taking into account a population growth of 65%, this means that the volume of per capita household consumption was nearly three times as high in 1987 as in 1938.⁹

Table 13. Final consumption expenditure of households, 1938 and 1987

	1987 (1938=100)
Final consumption expenditure of households, value index	5430
Final consumption expenditure of households, volume index	485
Population in households, index	165
Per capita final consumption expenditure of households	3280
Per capita final consumption expenditure of households, volume index	295

5.3. Expenditure Patterns in 1938 and 1987

Table 14 shows for both years the budget shares of four main commodity groups, at an aggregate level and by household category. More detailed tables can be found in the statistical annex; tables A2.15 - A2.18.

Regarding the population as a whole, the share of food in total consumption expenditure has more than halved, from 31.8% in 1938 to 14.5% in 1987. Interestingly, the share of tobacco products and beverages also fell, from 5.5% to 3.9%. This was counterbalanced by an increase in the shares of the other main categories: durables (+6.3 percentage points), dwelling services (+2.7), other goods and services (+5.9) and consumption expenditure abroad (+4.1). In relative terms, the budget share of the last of these categories showed the largest growth (427%), while durables (+38%) ranked second.

9. A word of caution is in order here. Very few commodities looked alike in both years and a significant proportion of the goods in 1987 did not even exist in 1938, while on the other hand the quality of e.g., several types of (personal and household) services was probably higher in 1938. As a consequence, volume indices are not very meaningful unless they refer to a rather short period. For this reason, the emphasis in our comparative analysis lies with structural features of the economy in both years.

Table 14. Consumption expenditure shares by household category, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
	%						
Food							
1938	35.3	40.9	23.3	19.5	46.1	34.4	31.8
1987	18.9	15.4	13.9	14.6	14.9	14.1	14.5
Tobacco products and beverages							
1938	6.3	5.5	5.4	5.5	4.7	5.5	5.5
1987	3.1	4.2	3.8	3.5	4.7	3.2	3.9
Durable consumer goods							
1938	18.1	15.4	18.2	17.6	12.0	15.2	16.5
1987	24.5	25.0	25.2	23.7	18.0	17.0	22.8
Dwelling services							
1938	13.1	17.8	15.6	16.6	17.3	16.4	16.5
1987	19.4	18.6	17.9	19.7	20.2	22.2	19.1
Other goods and services							
1938	27.3	20.1	35.5	39.0	19.8	27.4	28.8
1987	31.2	31.9	33.7	33.0	38.7	38.5	34.7
Consumption expenditure in the rest of the world							
1938	0.0	0.3	2.0	1.7	0.0	1.1	1.0
1987	3.0	4.8	5.5	5.6	3.6	5.0	5.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a) Including agricultural labourers.

A notable trend is revealed when we look at the divergence in budget shares by household group, particularly concerning food. Whereas in 1938 the poorer groups spent twice as much on food in relative terms, in accordance with Engel's law, in 1987 this gap had almost completely disappeared. This may be related to both a more equal distribution of total consumption per capita and a decent overall level of income in the latter year. Before World War II, the low income groups were probably still forced to spend much on food, while in 1987 every household group was so 'rich' that an almost constant share of food in total consumption resulted. Another indication for the absence of 'structural' poverty in 1987 is provided by the range of budget shares for expenditures abroad and tobacco products. Concerning the former category, the minimum share (3%) is found in the farmers' subgroup and this may be more socially than economically motivated (less time for holidays abroad). In per household terms, the minimum amount spent abroad is found in the unemployed category, but it is still almost 1200 guilders a year (see table A2.16). Remarkably, the 1987 budget share of tobacco products and beverages is highest in the subgroups with the lowest per capita disposable income: the unemployed and

blue collar workers.

As regards durables, the budget shares in the household subgroups which mainly depended on transfer incomes are significantly lower than those in the other subgroups. This is counterbalanced by a much higher percentage spent on 'other goods and services', as the proportion of dwelling services did not vary very much. Tables A2.15 - 18 reveal that these subgroups had particularly high expenses on health services in 1987; almost twice the national per capita average. Regarding the unemployed subgroup, one must realize that many of these households in fact depended on a labour disablement benefit in 1987.

Table 15 shows for each household subgroup the change in expenditure patterns between 1938 and 1987. The above-mentioned, substantial decrease in the share of food is clearly reflected in all categories of food products, with the greatest reduction for groceries (e.g., sugar and fats). In the poorer groups, the proportion spent on other basic food stuffs, like bread, also decreased enormously. The share of tobacco products and beverages fell in all groups, except the unemployed. The share of the main category durable consumer goods increased for each household subgroup, whereby the most spectacular change occurred for durable consumer goods n.e.c.. On average, these goods accounted for 0.0% in 1938 and for 6.9% in 1987. By far the biggest item in this subgroup is passenger cars; in addition, it contains bicycles, camera's, etc. As expected, the highest increase was indeed with the white collar workers. Note that most of the self-employed and part of the white collar workers may in fact drive a 'company' car, so that this is not included in their consumption figures.

Table 15. Change in expenditure shares by household category, from 1938 to 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
Food	-16.3	-25.5	-9.4	-4.9	-31.2	-20.3	-17.4
Groceries	-7.9	-9.5	-4.3	-3.6	-12.1	-8.2	-7.2
Dairy products	-2.1	-3.0	-0.7	0.0	-2.9	-2.6	-1.8
Bread and pastry	-2.8	-6.4	-1.5	-0.7	-9.5	-4.7	-4.0
Potatoes, vegetables and fruit	-1.8	-3.1	-1.8	-1.3	-4.2	-2.3	-2.3
Meat and meat products	-1.2	-3.0	-0.4	0.9	-2.4	-2.6	-1.6
Fish and fish preserves	-0.6	-0.4	-0.7	-0.2	-0.1	0.1	-0.4
Stimulants	-3.3	-1.3	-1.6	-2.1	0.0	-2.3	-1.6
Tobacco products	-2.3	-2.0	-1.1	-0.6	-0.9	-2.2	-1.4
Beverages	-1.0	0.7	-0.4	-1.5	1.0	0.0	-0.3
Durable consumer goods	6.4	9.6	7.0	6.0	5.9	1.8	6.3
Textiles and clothing	-1.7	-0.1	-2.1	-0.1	0.0	-1.7	-1.3
Footwear and leather ware	0.2	-0.5	0.2	0.4	-0.8	-0.7	-0.3
Household articles and interior decorating	1.5	2.5	0.9	-0.4	1.3	-0.3	1.0
Durable consumer goods n.e.c.	6.5	7.7	8.0	6.1	5.4	4.6	6.9
Dwelling services	6.3	0.9	2.3	3.1	2.8	5.7	2.7
Housing	3.7	0.8	1.8	2.8	2.3	3.8	2.1
Electricity, gas, water	3.6	1.1	0.8	0.9	2.1	2.4	1.4
Other dwelling services	-1.0	-1.0	-0.3	-0.6	-1.5	-0.4	-0.8
Other goods and services	3.9	11.8	-1.8	-6.1	18.9	11.1	5.9
Expenditure in hotels, cafes and restaurants	-0.3	1.4	0.2	1.1	1.5	-3.2	0.5
Entertainment services	0.1	-0.3	-2.0	-2.6	0.8	0.6	-1.0
Transport and communication	-1.2	0.9	-2.3	-3.4	1.8	1.1	-0.7
Health services	1.0	2.8	2.8	1.3	9.2	9.9	4.8
Goods and services n.e.c.	4.3	7.0	-0.5	-2.5	5.6	2.7	2.3
Consumption expenditure abroad	3.0	4.5	3.5	4.0	3.6	3.9	4.1
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a) including agricultural labourers.

The share of dwelling services increased in all household subgroups and particularly with farmers and pensioners. This concerned expenditures on both housing and electricity, gas and water. Concerning the latter, a typical farmer's household spent hardly more than half the national average in 1938, but 34% more than the mean in 1987. The connection of rural areas to the electricity grid and the gas distribution system must have played an important role here. A countervailing effect is revealed in the share of other dwelling services (including fuel for heating) which declined relatively much in the farmers' subgroup.

The proportion of other goods and services rose, on average, by 6 percent points. However, the underlying trends by household group were very diverging, ranging from -6% for the self-employed to +19% for the unemployed. At the national level, particularly health services accounted for a much larger percentage of total consumption. Surprisingly, the proportions spent on entertainment services and on transport and communication even decreased, particularly in the higher income groups. The

latter may be related to a substitution of public transport by the use of private cars. The conspicuous increase in overall spending on holidays abroad has already been noticed above.

6. Summary and Conclusions

In this paper, our aim was to analyze the socio-economic situation in the Netherlands just before World War II and to put this in a comparative perspective with the more recent past. For that purpose, we have compiled a historic(al) SAM for the Netherlands, referring to 1938. This SAM was presented above, in three different formats: 1) an aggregate matrix (table 1), which shows the interrelationships between the principal macro-economic transaction categories and balancing items (GDP, NNI, Saving, balance on current account of the Balance-of-Payments, etc.), 2) a somewhat disaggregated SAM (table 2), which mainly serves a didactic purpose, and 3) a full-fledged (85x84) SAM (table A2.1). In fact, table A2.1 is quite sizeable and contains a lot of empty cells. Therefore, we have considered presenting only the non-empty submatrices, each on a separate page. For the moment, however, preference has been given to the didactic advantage that table A2.1 clearly shows that all numbers belong to a single, fully consistent accounting system with multiple classifications.

From this SAM it appeared, among other things, that in 1938 the distribution of income and outlays among socio-economic subgroups was rather unequal. The difficulty to fulfil much more than fairly basic needs in the poorest categories - the unemployed and the agricultural labourers - was indicated by their very high budget share of food (about 50% vs. 20% in the more affluent subgroups). In addition, gross saving was negative for the unemployed and insignificant for the agricultural labourers.

Subsequently, tables on employment by industry, labour category (breadwinners, married women, children) and household subgroup were shown. The figures in these tables are fully consistent with the data on labour incomes in the SAM proper. In this sense, the employment data constitute an integral part of our data framework. It appeared, for instance, that married women made up only 5.5% of total employment. More than two thirds of them were working in two branches of industry: agriculture and trade, hotels, etc. Concerning the household background of breadwinners, substantial differences by industry occurred: in mining and quarrying 94% of the breadwinners were blue collar workers, while in finance this

proportion was only 15%.

It goes without saying that historical data become more interesting when they are put in perspective with analogous figures from a more recent period. For this purpose, the second part of this paper compared the 1938 SAM with 1987 household accounts by socio-economic subgroup. Although both data sets are not fully comparable in some respects, a number of firm conclusions can still be drawn from their juxtaposition:

First, some quite remarkable socio-demographic changes have occurred during the last half-century. This concerns, for instance, the enormous expansion of the middle-class. Whereas 44% of the population lived in blue collar worker's households in 1938, exactly the same proportion lived in white collar worker's households in 1987. Simultaneously, the share of the population which mainly depended on entrepreneurial income decreased from a quarter to only 8.5%. The absolute number of farmer's households even fell from 227,000 (10.4% of the total) to 92,000 (1.6%). The ageing of the Dutch is also a very clear trend: in 1987, 12.4% of the population lived in 'other' households while this was only 3.3% in 1938, despite the fact that this subgroup also included rentiers in that year. About the same proportion of households and people mainly depended on transfer incomes not related to old age in 1938 and in 1987.

Secondly, the average household became much smaller: 2.5 persons in 1987 versus 4.0 in 1938. Recently, small households were mainly found among the transfer income recipients, whereas fifty years ago the unemployed still had the largest households. Concerning the relative position of each subgroup qua income or expenditure, a ranking of per household data or per capita data yielded about the same results in 1938, but this was no longer the case in 1987. The use of equivalence scales in welfare comparisons has therefore become more relevant.

Thirdly, the food budget share more than halved during the last five decades. Simultaneously, the budget shares of passenger cars, bicycles, cameras, etc. and of consumption expenditures abroad were almost negligible in 1938, and equal to 7%, respectively 5% in 1987. For what it is worth,

the volume index of per capita consumption on the basis of 1938=100 is equal to almost 300 in 1987. It may thus be inferred that average material welfare has substantially risen over the last fifty years.

Fourthly, the distribution of income and expenditure among household subgroups has become much less unequal. This tendency is confirmed by various summary indicators, such as the quotient of the highest and the lowest per capita disposable income by subgroup: 4.72 in 1938 and 2.23, or 53% less, in 1987.

Finally, the variance in food budget shares was much smaller in the recent past than just before World War II. In 1938, the poorer subgroups spent roughly twice as much of their budget on food as the richer subgroups. On the other hand, their share spent on durables, in hotels, cafés, etc. and in the rest of the world was far below average. In 1987, these differences had almost disappeared. This indicates that in 1938 the poorer subgroups could fulfil hardly more than their basic needs, while in 1987 this was no longer the case.

This study has used a Social Accounting Matrix framework to arrive at an integrated estimation and presentation of both economic and social data for 1938. In turn, this implies that the values of summary indicators like GDP, NNI, the balance on current account of the balance of payments, employment, income distribution, the fulfilment of various (basic) needs, etc. are mutually consistent, both conceptually and numerically. Moreover, the SAM framework facilitated our comparison of the inequality in two different periods. For the moment, this comparison was purely descriptive. As soon as a full-fledged SAM for a more recent year becomes available, the causes and consequences of changes in economic structure and in the socio-economic position of household groups over the last 50 years can be analyzed more thoroughly.

Appendix. Data Sources and Estimation Method for determining the household composition by socio-economic category

Introduction

This appendix presents the data sources and the estimation method which have been used in determining the number and composition of households. This means that for each household category estimates have been made for the items in figure 3.

Figure 3. Composition of households

- number of households
- number of breadwinners with main income from
 - wages and salaries
 - agricultural labour
 - blue collar labour
 - white collar labour
 - mixed income
 - farmer
 - other self-employed
 - unemployment benefits
 - agricultural labour
 - blue collar labour
 - white collar labour
 - self-employed
 - other income
 - dividends etc.
 - pensions
 - social benefits (excluding unemployment)
 - other (e.g. students)
- number of other members
 - married women
 - with own income from
 - agricultural labour
 - blue collar labour
 - white collar labour
 - no income
 - other members
 - with own income from
 - agricultural labour
 - blue collar labour
 - white collar labour
 - other income
 - unemployed
 - no income
 - other

The labour force in 1930 and 1938

The questionnaire of the 1930 population census, held on December 31th, was an extensive one and included a number of questions about the occupation of the respondent. The results have been published in ten volumes; volume VIII deals with some of the results for the labour force. Two of its tables, numbered Ia and Ib, have been used for this study. Table Ia provides data on the number of labourers by:

- a. Branch of industry (up to SBI 81/82);
- b. Occupational position;
- c. Sex;
- d. Marital status;
- e. Age group.

The following occupational positions are distinguished:

- Self-employed managers (code A in table Ia);
- Employed managers (code B in table Ia);
- Senior personnel (code C in table Ia), like craftsmen, foremen and working overseers;

Table Ib contains for all SBIs data on common workers and persons working on own account as lawyers, physicians (code D):

- a. Occupation;
- b. Sex;
- c. Marital status;
- d. Age group (as in table Ia).

These data have been aggregated and modified to agree with a 1- or 2-digit industry level, the code being that of the Dutch Standard Classification of all Industrial Activities (from now on we will use the Dutch acronym SBI). Several dummy codes have been added:

- 11. white collar labourers not allocated (general office staff);
- 12. blue collar labourers not allocated.

By industry, the number of people in each subgroup have been listed. An example for agriculture and fishing is given in table A1.1.

Table A1.1. Labour force in agriculture and fishery, ultimo 1930

Class		SBI 0									SBI 1 - - - - -	Total
Code ^a	Sex ^b	a	a	b	b	c	c	d	d	sub-		
		m	f	m	f	m	f	m	f	total		
Age												
<14	unmarried							723	206	929	1862	
14-17	married		1					15	9	25	141	
	unmarried	255	41			7		48520	13476	62299	326693	
18-19	married	14	17					98	41	170	934	
	unmarried	288	39			28		29055	8399	37809	213544	
20	married	17	44	1		1		194	66	323	1656	
	unmarried	213	23			24		13633	3950	17843	105106	
21-24	married	1141	912	2		30		3755	554	6394	39773	
	unmarried	1410	109	6		227	4	45777	12230	59763	360575	
25-29	married	10230	3656	23		237		14106	1259	29511	176049	
	unmarried	2467	170	26		255	1	32601	7302	42822	231958	
30-39	married	39723	11015	132		636	2	28625	2086	82219	476356	
	unmarried	3846	299	25	3	232	2	20317	4046	28770	154986	
40-49	married	46628	11733	108		551	4	21953	974	81951	407050	
	unmarried	4627	467	8		111	1	8699	1436	15349	81697	
50-59	married	48012	11319	90		391	1	19526	443	79782	312114	
	unmarried	5187	514	3		63	1	5656	851	12275	53757	
60-64	married	19518	4310	39		126	2	7826	164	31985	101292	
	unmarried	1934	216	2		10	1	1766	232	4161	15422	
65-69	married	13885	2865	19		56	1	5476	119	22421	60708	
	unmarried	1391	144	4		6	2	1068	138	2753	8922	
>70	married	12885	2919	14		42		3677	73	19610	42772	
	unmarried	1175	125	1		7		693	65	2066	5859	
Subtotals												
Children												
	Unmarried 0-24	2166	212	6	0	286	4	137708	38261	178643	1007780	
	80% of unmarried											
	25-29	1974	136	21	0	204	1	26081	5842	34258	185566	
	Total	4140	348	27	0	490	5	163789	44103	212901		
	Married women		48791		0		10		5788	54589	145200	
	Breadwinners	210706	1799	476	3	2550	7	149970	8228	373740	1840680	
Total		214846	50938	503	3	3040	22	313759	58119	641230	3179226	

a) a: self-employed; b: employed managers; c: senior personnel; d: common workers etc.
 b) m: male; f: female.

At an earlier stage of our research (Den Bakker, 1992), labour force figures by industry and by household subgroup have been estimated for 1930 and 1938. These estimates, shown in tables A1.2 and A1.3, are based on volume VII of the 1930 census, which contains more detail regarding the allocation of labourers (codes A to D) by branch of industry, but which does not mention marital status or age. For 1938, the division of the labour force by industry over the households has been based on 1930 ratios. In addition, some corrections had to be made concerning blue and white collar labourers. The differences between the estimates in table A1.1 and in table A1.2 are mainly caused by the non-allocated labourers and by the fact that the figures in table A1.2 have been recalculated to year averages. The corrections on table A1.1, as shown in table A1.4 are made with the help of table A1.2 and the above mentioned corrections, whereby

the non-allocated blue collar labourers were used as a balancing item.

Table A1.2. Labour force by industry and household category, 1930

	Agricultural labourers	Farmers	Blue collar labourers	White collar labourers	Self employed	Total
0 Agriculture and fishery	372112	258693	13563	4567	4240	653175
1 Mining and quarrying			46693	2370	624	49687
2/3 Manufacturing of which:			640419	64781	76360	781560
20/21 Food, beverage and tobacco industry			148138	17524	22280	187941
22 Textile industry			73603	5369	1442	80415
23 Wearing apparel industry			67159	2756	19983	89898
24 Leather and footwear industry			15230	1170	1231	17630
25 Wood and furniture industry			45669	3067	10208	58945
26 Paper and paper products industry			14152	1164	210	15527
27 Printing and publishing industry			32049	7361	2579	41989
28/31 Petroleum and chemical industry			26922	4863	614	32399
32 Building materials industry			38567	2742	1437	42746
33/37 Metal industry			166174	17780	14790	198744
38/39 Industrial manufacturing n.e.c.			12756	985	1584	15325
4 Utilities			17549	5580	23	23153
5 Construction			196881	6963	40294	244138
6 Trade, hotels etc., repairs of consumer goods			191709	79401	219948	491058
7 Transport, storage and communication			186829	41149	26982	254960
81/82 Banking and insurance			5608	40217	2128	47954
83/99 Services n.e.c. except			304538	84677	41449	430664
90,92 General government			67744	112898		180641
Subtotal industry (SBI 1-5)			901542	79695	117301	1098537
Subtotal services			756427	358342	290507	1405276
Total	372112	258693	1671532	442604	412048	3156989

Table A1.3 Labour force by industry and household category, 1938

	Agricultural labourers	Farmers	Blue collar labourers	White collar labourers	Self employed	Total
0 Agriculture and fishery	397809	283701	14500	4882	4650	705541
1 Mining and quarrying			48733	2474	804	52011
2/3 Manufacturing of which:			716869	73169	89464	879503
20/21 Food, beverage and tobacco industry			154917	18326	24316	197559
22 Textile industry			77554	5657	1846	85057
23 Wearing apparel industry			77436	3177	23619	104233
24 Leather and footwear industry			16891	1297	1420	19608
25 Wood and furniture industry			48858	3282	11108	63247
26 Paper and paper products industry			15574	1281	301	17156
27 Printing and publishing industry			36551	8395	3175	48120
28/31 Petroleum and chemical industry			34858	6296	921	42075
32 Building materials industry			39460	2806	1668	43933
33/37 Metal industry			203779	21804	19190	244773
38/39 Industrial manufacturing n.e.c.			10992	849	1900	13742
4 Utilities			21613	6873	153	28639
5 Construction			203107	7183	44028	254318
6 Trade, hotels etc., repairs of consumer goods			213858	88575	248874	551307
7 Transport, storage and communication			197044	43399	29235	269678
81/82 Banking and insurance			6564	47072	2770	56406
83/99 Services n.e.c. except			330298	91840	54350	476488
90,92 General government			95918	118255		214173
Subtotal industry (SBI 1-5)			990323	89699	134449	1214471
Subtotal services			843681	389140	335230	1568051
Total	397809	283701	1848504	483722	474329	3488064

Table A1.4. Corrections for labour force, 1930

	Table A1.1	White collars	Blue collars	Table A1.2
0 Agriculture and fishery	641230	1000	10945	653175
1 Mining and quarrying	41316	1140	7231	49687
2/3 Manufacturing of which:				
20/21 Food, beverage and tobacco industry	141794	9880	36267	187941
22 Textile industry	70633	2830	6952	80415
23 Wearing apparel industry	92712	1000	-3814	89898
24 Leather and footwear industry	16493	700	437	17630
25 Wood and furniture industry	62238	1250	-4543	58945
26 Paper and paper products industry	11632	650	3245	15527
27 Printing and publishing industry	23914	5000	13075	41989
28/31 Petroleum and chemical industry	15185	3300	13914	32399
32 Building materials industry	32357	1000	9389	42746
33/37 Metal industry	186264	11000	1480	198744
38/39 Industrial manufacturing n.e.c.	15657	500	-832	15325
4 Utilities	4842	4330	13981	23153
5 Construction	284362	2400	-42624	244138
6 Trade, hotels etc., repairs of consumer goods	392443	38000	60615	491058
7 Transport, storage and communication	188421	22000	44539	254960
81/82 Banking and insurance	12806	32600	2548	47954
83/99 Services n.e.c. except	422003	4000	4661	430664
90,92 General government	122392	38660	19589	180641
Blue collars n.e.c.	219293		-219293	0
White collars n.e.c.	181240	-181240		0
Total	3179227	0	-22238 ^a	3156989

a) Recalculation to year averages.

From the 1930 census the number of households (= the number of breadwinners) has been derived. These households are exclusive of the people living in institutions like mental homes etc. The first step was to divide the breadwinners into those with an occupation (including unemployed) and those without. The latter figure has been compiled using all kinds of information on social benefits, pension payments, live-insurance payments and on people of independent means for 1938 (145,000). Similar estimates have been made for 1930 which lead to a residual number of households with breadwinners with an occupation (1,840,680). Assuming that married female workers and unmarried children up to a certain age are not breadwinners makes it possible to reconcile the labour force data and this number. Using the age group 25-29 as a balancing item we found that 80% of this group was still living at home. For each branch of industry, the

proportions of married women and unmarried children have been estimated. Table A1.5 contains an example for agriculture and fishery (SBI 0).

Table A1.5. Corrected labour force in agriculture and fishery, ultimo 1930

Code ^a Sex ^b	SBI 0					SBI 1 - - -					Total
	a m	a f	b m	b f	c m	c f	d m	d f	Sub- total		
Original total (table A1.1)	214846	50938	503	3	3040	22	313759	58119	641230		3179226
Children											
Unmarried 0-24	2166	212	6	0	286	4	137708	38261	178643		1007780
80% of unmarried											
25-29	1974	136	21	0	204	1	26081	5842	34258		185566
Total	4140	348	27	0	490	5	163789	44103	212901		1985880
Married women		48791		0		10		5788	54589		145200
Correction (see table A1.4)											
blue collars									10945		197055
white collars									1000		181240
of which unmarried											
children blue collars									4090		73632
white collars									507		91942
Married women blue collars									78		1406
white collars									9		1704
Total after correction											
Agricultural labourers									371878		371878
Farmers									265784		265784
Blue and white collars									15513		2117022
Self-employed											402305
Total									653175		3156989
of which:											
Unmarried children											
Agricultural labourers									207891		207891
Farmers									4488		4488
Blue and white collars									5118		947881
Self-employed											24777
Total									217497		1185037
Married women											
Agricultural labourers									5788		5788
Farmers									48791		48791
Blue and white collars									97		45648
Self-employed											44812
Total									54676		145039

a) a: self-employed; b: employed managers; c: senior personnel; d: common workers etc.

b) m: male; f: female.

Table A1.6 shows for the blue collar workers the calculations that were made using these proportions and the 1938 distributions by industry and household subgroup (see table A1.3). Such calculations have been made for the other categories of breadwinners as well.

Table A1.6. Blue collars, 1938

	Percentages		Total	Married women	Un-married children	Bread-winners	Unemployment				Employed			Total
	Unm. child	Mar. wom.					Rate	Total	Bread-winners	Child-ren	Bread-winners	Married women	Child-ren	
	%						%							
0 Agriculture and fishery	33.0	0.6	14500	83	4781	9635	24.0	3480	2326	1154	7309	83	3627	11020
1 Mining and quarrying	29.5	2.1	48733	1043	14352	33338	6.6	3216	2248	968	31090	1043	13384	45517
2/3 Manufacturing of which:														
20/21 Food, beverage and tobacco industry	46.9	0.8	154917	1207	72667	81043	20.3	31448	16581	14867	64462	1207	57800	123469
22 Textile industry	51.3	2.3	77554	1808	39818	35927	23.5	18225	8644	9581	27283	1808	30237	59329
23 Wearing apparel industry	67.4	4.0	77436	3079	52203	22154	19.8	15332	4568	10764	17586	3079	41439	62104
24 Leather and footwear industry	50.8	0.7	16891	118	8581	8192	36.7	6199	3028	3171	5164	118	5410	10692
25 Wood and furniture industry	45.6	0.0	48858	19	22303	26536	37.3	18224	9902	8322	16634	19	13981	30634
26 Paper and paper products industry	49.1	0.9	15574	145	7647	7781	16.6	2585	1304	1281	6477	145	6366	12988
27 Printing and publishing industry	43.6	0.4	36551	149	15937	20464	16.6	6067	3411	2656	17053	149	13281	30483
28/31 Petroleum and chemical industry	43.4	0.6	34858	220	15136	19502	24.9	8680	4887	3793	14615	220	11343	26178
32 Building materials industry	36.6	0.5	39460	203	14426	24830	37.7	14876	9409	5467	15421	203	8959	24583
33/37 Metal industry	44.5	0.1	203779	215	90754	112809	20.8	42386	23489	18897	89320	215	71857	161393
38/39 Industrial manufacturing n.e.c.	40.4	1.8	10992	194	4439	6359	32.9	3617	2130	1487	4230	194	2952	7376
4 Utilities	30.6	0.5	21613	99	6605	14909	0.0	0	0	0	14909	99	6605	21613
5 Construction	37.0	0.0	203107	0	75236	127872	34.7	70478	44371	26107	83500	0	49129	132629
6 Trade, hotels etc., repairs of consumer goods	47.4	2.0	213858	4174	101458	108226	10.8	23097	11921	11176	96305	4174	90282	190761
7 Transport, storage and communication	26.8	0.4	197044	830	52819	143394	31.6	62266	45504	16762	97890	830	36058	134778
81/82 Banking and insurance	24.1	1.1	6564	75	1580	4910	8.3	545	412	133	4497	75	1447	6019
84/99 Services n.e.c. except	58.8	6.5	330298	21502	194108	114688	3.4	11230	4171	7059	110517	21502	187049	319068
90,92 General government	27.5	2.1	95918	2037	26387	67494	0.0	0	0	0	67494	2037	26387	95918
Total	44.5	2.0	1848504	37201	821239	990065	18.5	341952	198307	143645	791758	37201	677594	1506552

Table A1.8. Labour force by industry, 1938

	Total	Married women	Unmarried children	Bread-winners	Total	Married women	Unmarried children	Bread-winners
					%			
0 Agriculture and fishery	705542	59515	233157	412870	100.0	8.4	33.0	58.5
1 Mining and quarrying	52011	1104	15340	35567	100.0	2.1	29.5	68.4
2/3 Manufacturing of which:	879503	11171	388521	479811	100.0	1.3	44.2	54.6
20/21 Food, beverage and tobacco industry	197559	1854	82903	112802	100.0	0.9	42.0	57.1
22 Textile industry	85057	2075	42864	40118	100.0	2.4	50.4	47.2
23 Wearing apparel industry	104233	5126	59080	40026	100.0	4.9	56.7	38.4
24 Leather and footwear industry	19608	151	9322	10135	100.0	0.8	47.5	51.7
25 Wood and furniture industry	63247	123	24410	38715	100.0	0.2	38.6	61.2
26 Paper and paper products industry	17156	162	8326	8667	100.0	0.9	48.5	50.5
27 Printing and publishing industry	48120	278	20307	27535	100.0	0.6	42.2	57.2
28/31 Petroleum and chemical industry	42075	356	18350	23369	100.0	0.8	43.6	55.5
32 Building materials industry	43933	248	15673	28011	100.0	0.6	35.7	63.8
33/37 Metal industry	244773	542	102265	141967	100.0	0.2	41.8	58.0
38/39 Industrial manufacturing n.e.c.	13742	255	5022	8465	100.0	1.9	36.5	61.6
4 Utilities	28639	154	9379	19106	100.0	0.5	32.7	66.7
5 Construction	254318	459	80132	173727	100.0	0.2	31.5	68.3
6 Trade, hotels etc., repairs of consumer goods	551307	51566	159717	340025	100.0	9.4	29.0	61.7
7 Transport, storage and communication	269678	1831	70943	196903	100.0	0.7	26.3	73.0
81/82 Banking and insurance	56406	629	22195	33582	100.0	1.1	39.3	59.5
83/99 Services n.e.c. except	476488	30851	254272	191365	100.0	6.5	53.4	40.2
90,92 General government	214173	4595	65203	144374	100.0	2.1	30.4	67.4
Subtotal industry (SBI 1-5)	1214471	12888	493372	708212	100.0	1.1	40.6	58.3
Subtotal services	1568052	89471	572331	906249	100.0	5.7	36.5	57.8
Total	3488065	161874	1298859	2027331	100.0	4.6	37.2	58.1

The composition of households in 1938

To begin with, the whole 1938 population has been divided into four major groups using 1930 ratios:

A. Breadwinners (=number of households)	2172332	(2027331+145000)	(see above)
B. Married women	2063715		
C. Age group 14-29 (unmarried)	1919700		
D. Rest	2528335		
Total population	8684082		

The next step was to allocate groups B, C and D of this list. The Budget survey held in 1935/1936 (CBS, 1937) gives insight into the composition of the households, because for each member the age and position (within the family) is known as well as the occupation of the head of the family. The married women have been proportionally distributed among the household categories, excluding the subgroup 'other' households. For the age group 14-29, the following calculations have been performed

Having estimated the total number of employed children and women by kind of economic activity, the next task is to determine to what household category these persons belong. Therefore, the number of unmarried children in the age group 14-29 was split into two groups using the 1930 figures (the totals at the bottom of table Ib):

1. Unmarried children with an occupation	1342300;
2. Unmarried children without an occupation	577400;
Total of the age group 14-29	1919700.

As mentioned before, it is assumed that 80% of the unmarried children with an occupation in the age of 25-29 still lived at home. Table A1.7 shows the relevant total of unmarried children with an occupation: 1,298,859. The latter figure has been used in the rest of the calculations. The ratios concerning married women and the number and age of other household members derived from the Budget survey (like in the 1930 census: married women were present in 95% of the households) were used to distinguish between children under 14 (who don't have an occupation) and those of 14 years and older. The latter group consists of members with an

occupation (1,298,859), students (280,000) and others. Those three subgroups have been subdivided taking into account their kind of activity. For instance, children who are agricultural labourers are supposed to live only in the households of farmers and agricultural labourers. In the same way, the married women have been subdivided in employed and not employed. The tables A1.9 and A1.10 give a recapitulation of the household composition as calculated for 1938.

Table A1.9. Household composition in 1938

	Agricul- tural labourers	Farmers	Blue collars	White collars	Self- employed	Unemployed					Other	Total
						Total	Agricul- tural labourers	Blue collars	White collars	Self- employed		
Breadwinners	127833	226677	791758	225364	344842	310858	41236	198307	27016	44299	145000	2172332
Married women	121441	215343	752170	214096	327600	295315	39174	188392	25665	42084	137750	2063715
employed	10469	52201	26749	7614	54340	10502	1393	6700	913	1497	0	161874
not employed	110973	163142	725421	206482	273260	284813	37781	181692	24752	40587	137750	1901841
Children 14-29	77642	268108	708682	175302	235169	453797	60197	289493	39439	64669	1000	1919700
employed	38474	126493	435536	85571	175705	271510	34142	178620	24094	34654	621	1073931
not employed	39168	141615	273146	89711	159463	182287	26056	110873	15345	30014	379	845769
of which												
unemployed	11732	37100	83351	16380	17704	58542	10411	34184	4611	9337	119	224928
Other members	177734	249880	1061516	248432	339044	450729	59790	287535	39172	64231	1000	2528335
Total population	504650	960008	3314126	863194	1246654	1510700	200398	963727	131292	215283	284750	8684083

Table A1.10. Household composition in 1938

	Agricul- tural labourers	Farmers	Blue collars	White collars	Self- employed	Unemployed					Other	Total
						Total	Agricul- tural labourers	Blue collars	White collars	Self- employed		
Breadwinners	25.3	23.6	23.9	26.1	27.7	20.6					50.9	25.0
Married women	24.1	22.4	22.7	24.8	26.3	19.5					48.4	23.8
employed	2.1	5.4	0.8	0.9	4.4	0.7					0.0	1.9
not employed	22.0	17.0	21.9	23.9	21.9	18.9					48.4	21.9
Children 14-29	15.4	27.9	21.4	20.3	18.9	30.0					0.4	22.1
employed	7.6	13.2	13.1	9.9	9.3	18.0					0.2	12.4
not employed	7.8	14.8	8.2	10.4	9.6	12.1					0.1	9.7
of which												
unemployed	2.3	3.9	2.5	1.9	1.4	3.9					0.0	2.6
Other members	35.2	26.0	32.0	28.8	27.2	29.8					0.4	29.1
Total population	100.0	100.0	100.0	100.0	100.0	100.0					100.0	100.0

Statistical annex

Table A2.1. A (85x84) Social Accounting Matrix for the Netherlands, 1938 (mln guilders)

ACCOUNT (Classification)		1. GOODS AND SERVICES																	2. PRODUCTION									
		CODE	1a	1b	1c	1d	1e	1f	1g	1h	1i	1j	1k	1l	1m	1n	1o	1p	1q	1r	1s	1t	1u	1v	2a	2b	2c	2d
1. GOODS AND SERVICES	1 Agriculture and fishery	1a																							174	621	2	
	2 Mining and quarrying	1b																									7	
	3 Food, beverage and tobacco industry	1c																							77	271		
	4 Textile industry	1d																							3			10
	5 Wearing apparel industry	1e																										
	6 Leather and footwear industry	1f																										
	7 Wood and furniture industry	1g																							1	6		
	8 Paper and paper products industry	1h																							2		10	
	9 Printing and publishing industry	1i																							1		8	
	10 Petroleum and chemical industry	1j																							80	3	8	
	11 Building materials industry	1k																							1		5	
	12 Metal industry	1l																							51	14	20	
	13 Industrial manufacturing n.e.c.	1m																										
	14 Utilities	1n																							4	2	4	
	15 Construction	1o																							2		14	
	16 Trade, hotels, repairs of cons. goods	1p	186	29	359	96	80	37	50	7	16	77	23	153	3				-1116						2			
	17 Transport, storage and communication	1q																							1		23	
	18 Banking and insurance	1r																							12		7	
	19 Real estate	1s																										
	20 Business services n.e.c.	1t																							3		14	
	21 General government	1u																							1	2	7	
	22 Imports of services	1v																										
2. PRODUCTION	1 Agriculture and fishery	2a	950																									
	2 Mining and quarrying	2b		123																								
	3 Food, beverage and tobacco industry	2c			1287																							
	4 Textile industry	2d				261																						
	5 Wearing apparel industry	2e					199																					
	6 Leather and footwear industry	2f						80																				
	7 Wood and furniture industry	2g																										
	8 Paper and paper products industry	2h																										
	9 Printing and publishing industry	2i																										
	10 Petroleum and chemical industry	2j																										
	11 Building materials industry	2k																										
	12 Metal industry	2l																										
	13 Industrial manufacturing n.e.c.	2m																										
	14 Utilities	2n																										
	15 Construction	2o																										
	16 Trade, hotels, repairs of cons. goods	2p																										
	17 Transport, storage and communication	2q																										
	18 Banking and insurance	2r																										
	19 Real estate	2s																										
	20 Business services n.e.c.	2t																										
	21 General government	2u																										
	22 Imputed bank services	2v																										
3. INCOME GENERATION	Compensation employee	3a																					118	54	120	41		
	Others	3b																					36	15	50	21		
	Net operating surplus/mixed income	3c																					358	15	76	21		
	Fixed capital consumption	3d																					23	12	22	1		
4.-6. INCOME DISTRIBUTION AND USE	4. Allocation of primary income	Households	4a																									
		Agric labourers	4b																									
		Farmers	4c																									
		Blue collars	4d																									
		White collars	4e																									
		Self-employed	4f																									
	5. Distribution of secondary income	Unemployed	4g																									
		Other	4h																									
		Companies	4i	-66	4	240	6	10	4	3	2	3	8	1	18	1	7	9	167	-14	6	36	25					
		Government	4j																									
		6. Use of Income	Households	5a																								
			Agric labourers	5b																								
Farmers	5c																											
Blue collars	5d																											
White collars	5e																											
Self-employed	5f																											
7. CAPITAL PRODUCED CAPACITY	Unemployed	Other	5g																									
		Companies	5h																									
		Government	5i																									
		8. AGRICULTURE AND FISHERY INDUSTRY	Households	6a																								
			Agric labourers	6b																								
			Farmers	6c																								
	Blue collars		6d																									
	White collars	6e																										
	Self-employed	6f																										
	9. FINANCIAL BALANCE	Unemployed	6g																									
Other		6h																										
Companies		6i																										
Government		6j																										
10.-11. REST OF THE WORLD	10. CURRENT	10	319	136	117	95	32	11	86	23	5	182	26	367	56													
	11. CAPITAL	11																										
TOTAL			1389	292	2003	458	321	132	241	122	188	465	116	1283	122	230	571	382	891	201	496	698	569	244	950	123	1287	26

																						3. INCOME GENERATION				4.-6. INCOME DISTRIBUTION AND USE								
																						Compensation employees		Net opera ting surplus	Fixed capital consum tion	4. Allocation of primary income								
																						Bread- winners		Other members		Households							Compa nies	Govern ment
2e	2f	2g	2h	2i	2j	2k	2l	2m	2n	2o	2p	2q	2r	2s	2t	2u	2v	3a	3b	3c	3d	Agric labourers	Far- mers	Blue collars	White collars	Self- employed	Un- employed	Other	4h	4i				
2	12	3		5						1	19	2			2																			
			2		56	11	72	3	32	12		5			1	8																		
14				17						1	56	1			6	1																		
72	2										1				1	10																		
7											2	3			4																			
											4																							
		41	9				1	2		72	3	3				8																		
1	1		18	30	4		2	1	1	4	11		5		1	5																		
1	1			50	2		4		2	1	9	3	4		2	5																		
2	2		17	1	48	4	11	1	2	14	8	26			6	7																		
					2	1	1			81					1	8																		
2	2	2	2		5	1	265	17	4	83	39	33		5	1	20																		
								19							2	1																		
3	1	1	1			2	11		2		14	9			4	12																		
1	1	1	2	1	2	2	5		7	24	13	8	5	18		7																		
							1				22	35	1		6	12																		
3		2	2	1	2	2	11	1	1		273	24	5		1	29																		
			1			1	4			2	6	6	10			24	60																	
1			19	2		8		3	10	49	6	2		2	25																			
						5		2		3	10	2		6																				
						1				8	182																							
26	11	24	12	39	32	24	161	7	37	128	274	233	81		232	332																		
14	7	7	7	8	7	5	40	2	5	26	88	48	10		85	35																		
62	12	10	9	9	32	8	103	7	89	95	381	149	63	401	300	-60																		
5	1	2	5	6	4	5	39	2	36	10	40	106	7	39	10	19																		
											90	14	23					90	14	23														
												27	388																					
											1136	234	47					1136	234	47									144	16				
											763	47	19					763	47	19									117	18				
												47	962						47	962									263	72				
												131	14						131	14									7	1				
													2							2									109	15				
													690							690									54	66				
																													170					

Table A2.1. A (85x84) Social Accounting Matrix for the Netherlands, 1938 (min guilders)

ACCOUNT (Classification)			4.-6. INCOME DISTRIBUTION AND USE													
			5. Distribution of secondary income							6. Use of income						
			Households							Compa Government nies ment						
			Agric labourers	Far- mers	Blue collars	White collars	Self- employed	Un- employed	Other	Agric labourers	Far- mers	Blue collars	White collars	Self- employed		
CODE	5a	5b	5c	5d	5e	5f	5g	5h	5i	6a	6b	6c	6d	6e		
1. GOODS AND SERVICES	1 Agriculture and fishery	1a									13	39	115	53	82	
	2 Mining and quarrying	1b									2	8	13	5	8	
	3 Food, beverage and tobacco industry	1c									57	149	464	186	189	
	4 Textile industry	1d									4	31	41	26	64	
	5 Wearing apparel industry	1e									7	43	88	58	82	
	6 Leather and footwear industry	1f									3	10	35	16	21	
	7 Wood and furniture industry	1g									3	6	22	14	22	
	8 Paper and paper products industry	1h										1	1	1	3	
	9 Printing and publishing industry	1i										1	5	18	13	44
	10 Petroleum and chemical industry	1j										4	10	34	18	28
	11 Building materials industry	1k											1	4	3	5
	12 Metal industry	1l										2	16	32	26	57
	13 Industrial manufacturing n.e.c.	1m										1	2	7	6	15
	14 Utilities	1n										2	9	50	28	44
	15 Construction	1o												3	3	4
	16 Trade, hotels, repairs of cons. goods	1p										2	31	72	55	65
	17 Transport, storage and communication	1q										2	9	17	29	47
	18 Banking and insurance	1r										1	5	12	12	16
	19 Real estate	1s										12	43	165	82	124
	20 Business services n.e.c.	1t										9	51	122	126	176
	21 General government	1u											2	2	2	8
	22 Imports of services	1v											4	6	11	18
2. PRODUCTION	1 Agriculture and fishery	2a														
	2 Mining and quarrying	2b														
	3 Food, beverage and tobacco industry	2c														
	4 Textile industry	2d														
	5 Wearing apparel industry	2e														
	6 Leather and footwear industry	2f														
	7 Wood and furniture industry	2g														
	8 Paper and paper products industry	2h														
	9 Printing and publishing industry	2i														
	10 Petroleum and chemical industry	2j														
	11 Building materials industry	2k														
	12 Metal industry	2l														
	13 Industrial manufacturing n.e.c.	2m														
	14 Utilities	2n														
15 Construction	2o															
16 Trade, hotels, repairs of cons. goods	2p															
17 Transport, storage and communication	2q															
18 Banking and insurance	2r															
19 Real estate	2s															
20 Business services n.e.c.	2t															
21 General government	2u															
22 Imputed bank services	2v															
3. INCOME GENERATION	Compensation employee	3a														
	Breadwinners	3b														
	Others	3c														
	Net operating surplus/mixed income	3d														
4.-6. INCOME DISTRIBUTION AND USE	4. Allocation of primary income	Households	4a													
		Farmers	4b													
		Blue collars	4c													
		White collars	4d													
		Self-employed	4e													
		Unemployed	4f													
		Other	4g													
	Companies	4h														
	Government	4i														
	5. Distribution of secondary income	Households	5a													10
		Farmers	5b													1
Blue collars		5c								21					31	
White collars		5d								43					1	
Self-employed		5e								43					7	
Unemployed		5f								10					189	
Other		5g								190					8	
Companies	5h	8	7	105	117	81	16									
Government	5i	2	41	34	99	151	2	32	32						51	
6. Use of income	Households	6a	127													
	Farmers	6b		530												
	Blue collars	6c			1330											
	White collars	6d				795										
	Self-employed	6e					1173									
	Unemployed	6f						334								
	Other	6g							297							
Companies	6h								321							
Government	6i									554						
7. CAPITAL		7									2	57	7	38	51	
8. PRODUCED CAPACITY	Agriculture and fishery	8a														
	Industry	8b														
	Real estate	8c														
	Transport, storage and communication	8d														
	Services	8e														
General government	8f															
9. FINANCIAL BALANCE		9														
10.-11. REST OF THE WORLD	10. CURRENT	10														
	11. CAPITAL	11														
TOTAL			137	578	1489	1011	1405	352	329	660	852	127	530	1330	795	1173

		7. CAPITAL		8. PRODUCED CAPACITY						10.-11. REST OF THE WORLD		TOTAL	
		Compa nies ment		Agri Indu Real Tran Serv Gover						10.	11.		
Un- employed	Other	6h	6i	7	8a	8b	8c	8d	8e	8f	CUR- RENT		CAPI- TAL
6f	6g										10	11	
31	22			3	21						144		1389
5	2			-4							44		292
141	84			-31							338		2003
9	10			-20							94		458
14	17			-8							4		321
8	6			-5							12		132
5	5			5		7					6		241
				-5							25		122
4	3										8		158
9	7			-22		16				11	108		465
1	1			-4							7		118
9	8			-88		181		136		81	276		1283
1	1			-1		19					49		122
10	10					4							230
					42	62	118	31	60	136			571
13	27										36		382
2	3							4			394		891
2	8										11		201
39	31												496
33	27					1	1				8		698
1			444							70	2		569
1	2												244
													950
													123
													1287
													261
													199
													80
													102
													90
													164
													220
													66
													745
													62
													228
													382
													11303
													905
													195
													460
													673
													569
													0
													1989
													500
													2145
													404
													127
											2		577
											3		1417
											31		967
											31		1355
											3		153
											3		128
											478		1265
											3		647
													137
													578
													1469
													1011
													1405
													352
											2		329
													690
													852
													127
													530
													1330
													795
													1173
													334
													297
													321
													554
-4	23	321	110									55	1064
				63									63
				290									290
				119									119
				171									171
				60									60
				278									278
				255								-255	0
													1858
				8							-208		-200
334	297	321	554	1064	63	290	119	171	60	278	1858	-200	

Table A2.2. Per household income and outlay by household category, 1938

	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
	guilders							
Compensation of employees	814	119	1731	3595	136	421		1146
of which breadwinners	704		1435	3386				916
non-breadwinners	110	119	296	209	136	421		230
Mixed income, net	86	1588			2697			599
Operating surplus, net	94	124	59	84	93	45	14	71
Dividends, rents, etc.		715		612	1003	26	876	360
Pension benefits etc.			27	191	125	32	1310	141
Social benefits	38	4	39	4	20	608	55	114
Unrequited current transfers from the rest of the world							14	1
Total resources	1072	2550	1855	4486	4074	1132	2269	2431
Premiums pension and life insurance	23	26	51	297	223	39		94
Employers' social contributions	39	4	82	222	12	13		59
Current taxes	16	181	43	439	438	6	221	166
Consumption	978	2087	1671	3359	3254	1087	1890	2031
Saving, net	16	251	9	169	148	-13	159	80
Total uses	1072	2550	1855	4486	4074	1132	2269	2431

Table A2.3. Relation between the classifications in this study and the 1935/36 Budget Survey

	Budget Survey	
	Description	Item number
Food		
Groceries	Beans, rice, meal	2
	Tea, coffee, marmelade etc.	8
	Vegetable and mixed fats	9
	Animal fats and oil	10
	Sugar	7
Dairy products	Milk	13
	Cheese	14
	Eggs	15
Bread and pastry	Bread and pastry	1
Potatoes, vegetables and fruit	Potatoes	3
	Vegetables	4
	Fruit	5
Meat and meat products	Meat and meat products	11
Fish and fish preserves	Fish	12
Stimulants		
Tobacco products	Smoking	33
Beverages	Beverages	6
Durable consumer goods		
Textiles and clothing	Clothing	25
Footwear and leatherware	Footwear	26
Household articles and interior decorating	Interior decorating and furniture	20
Dwelling services		
Housing	Rent	17
	Electricity, gas and water	Electricity
	Gas	21a
	Water	18
Other dwelling services	Fuel	21c
	Maintenance of dwelling	19
Other goods and services		
Expenditure in hotels, cafés and restaurants	Cafe-going	16
	Recreation	32
Entertainment services	Recreation	32
Transport and communication	Transport	34
Health services	Medical care	28
Goods and services n.e.c.	Detergents, laundry	22
	Domestic service	23
	Plants and animals	24
	Personal care	27
	Education	29
	Religion (partly)	30
	Social and political interests (partly)	31
	Other needs	38
	Charity, gifts (partly)	36

Table A2.4. Relation between the SAM-commodity classification and the one in the 1935/36 Budget Survey, white collars¹ (Row %)

Item number	code	Agric	Min	Food	Text	Wear	Lea-	Wood	Paper	Prin-	Petr	Build	Metal	Ind	Util	Con-	Trade	Trans	Real	Serv	Go-	Taxes	Insu-	Pens	Nec	Not	
		fish	quarr	ind	ind	appar	ther	furn	prod	ting	chem	mat	ind	nec	nec	struc	commu	estat	nec	verrm	rance	Life	appl				
		1a	1b	1c	1d	1e	1f	1g	1h	1i	1j	1k	1l	1m	1n	1o	1p	1q	1s	1t	1u						
		%																									
Beans, rice, meal	2	40		60																							
Tea, coffee, etc.	8			100																							
Vegetable and mixed fats	9			100																							
Animal fats and oil	10	5		95																							
Sugar	7			100																							
Milk	13	25		75																							
Cheese	14	20		80																							
Eggs	15	100																									
Bread and pastry	1			100																							
Potatoes	3	100																									
Vegetables	4	85		15																							
Fruit	5	85		15																							
Meat and meat products	11			100																							
Fish	12	50		50																							
Smoking	33			100																							
Beverages	6			100																							
Clothing	25				17	74						1	1								7						
Footwear	26						65										35										
Interior decorating and furniture	20				35			11			1	4	28	2			15							4			
Rent	17																		100								
Electricity	21b														100												
Gas	21a										3				97												
Water	18														100												
Fuel	21c		75								25																
Maintenance of dwelling	19															96							4				
Cafe-going	16																100										
Recreation	32											8	2								54						
Transport	34											7					12	36			74		7				
Medical care	28																										
House and clothing cleaning	22																										
Domestic service	23			35																							
Plants and animals	24	57										8											1				
Personal care	27																										
Education	29								6	20	52			4							8	62					
Religion (partly)	30																				100						
Social and political interests (partly)	31																				100						
Other needs	38																								50	50	
Charity, gifts (partly)	36			15																					20	65	
Insurance	35																						3	97			

1. For the other household categories the relation differs for some items.

Table A2.5. Consumption expenditure by household category, 1938

	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
	million guilders							
Food	67	167	525	176	219	156	94	1404
Groceries	22	56	161	54	71	52	29	445
Dairy products	9	26	75	24	30	19	14	198
Bread and pastry	17	33	119	32	38	41	21	301
Potatoes, vegetables and fruit	8	18	68	29	39	21	13	197
Meat and meat products	9	29	91	29	33	20	16	228
Fish and fish preserves	1	4	11	8	8	2	1	35
Stimulants	5	30	75	41	62	16	15	244
Tobacco products	3	16	51	20	20	11	10	131
Beverages	2	14	24	21	42	5	5	113
Durable consumer goods	18	85	205	138	198	41	42	727
Textiles and clothing	8	52	108	75	101	19	22	385
Footwear and leatherware	5	9	31	13	19	8	5	90
Household articles and interior decorating	5	24	66	50	78	14	14	252
Durable consumer goods n.e.c.	0	0	0	0	0	0	0	0
Dwelling services	18	62	239	118	186	59	45	726
Housing	12	43	165	82	124	39	31	496
Electricity, gas and water	2	9	49	26	44	11	10	152
Other dwelling services	4	10	25	10	18	8	4	79
Other goods and services	18	129	273	269	438	67	75	1269
Expenditure in hotels, cafés and restaurants	0	20	41	31	35	7	17	151
Entertainment services	2	10	34	32	57	4	6	146
Transport and communication	3	16	22	37	63	5	5	151
Health services	4	15	41	25	37	18	9	149
Goods and services n.e.c.	9	68	136	144	246	32	39	672
Consumption in the rest of the world	0	0	5	15	19	0	3	42
Final consumption expenditure of households	125	473	1323	757	1122	338	274	4412

Table A2.6. Per capita consumption expenditure by household category, 1938

	Agricultural labourers	Farmers	Blue collars	White collars	Self- employed	Un- employed	Other	Total
	guilders							
Food	132	174	158	204	176	103	331	162
Groceries	44	58	49	62	57	34	103	51
Dairy products	18	28	23	28	24	13	49	23
Bread and pastry	34	34	36	37	30	27	74	35
Potatoes, vegetables and fruit	16	19	21	34	31	14	44	23
Meat and meat products	18	30	27	34	27	14	57	26
Fish and fish preserves	2	4	3	9	6	1	4	4
Stimulants	10	31	23	47	50	11	53	28
Tobacco products	6	17	15	23	16	7	35	15
Beverages	4	15	7	24	34	3	18	13
Durable consumer goods	36	89	62	160	159	27	146	84
Textiles and clothing	16	54	33	87	81	13	78	44
Footwear and leatherware	10	9	9	15	15	5	18	10
Household articles and interior decorating	10	25	20	58	63	9	50	29
Durable consumer goods n.e.c.	0	0	0	0	0	0	0	0
Dwelling services	35	64	72	137	149	39	158	84
Housing	24	45	50	95	99	26	109	57
Electricity, gas and water	4	9	15	30	36	7	35	18
Other dwelling services	7	10	8	12	14	6	14	9
Other goods and services	35	134	82	317	351	44	263	146
Expenditure in hotels, cafés and restaurants	0	21	12	36	28	5	60	17
Entertainment services	5	11	10	37	46	3	19	17
Transport and communication	5	16	7	43	51	4	19	17
Health services	9	16	12	29	30	12	30	17
Goods and services n.e.c.	17	70	41	167	197	21	135	77
Consumption expenditure in the rest of the world	0	0	2	17	15	0	11	5
Final consumption expenditure of households	249	493	399	877	900	224	962	508

Table A2.7. Employment by position in the household and by industry, 1938

	Bread- winners	Married woman	Children	Total
0 Agriculture and fishery	367942	59515	177491	604947
1 Mining and quarrying	33142	1104	14305	48550
2/3 Manufacturing of which:	376090	11171	299162	686423
20/21 Food, beverage and tobacco industry	92045	1854	66041	159940
22 Textile industry	30671	2075	32571	65317
23 Wearing apparel industry	33384	5126	47381	85891
24 Leather and footwear industry	6741	151	5898	12790
25 Wood and furniture industry	27107	123	15450	42680
26 Paper and paper products industry	7233	162	6932	14327
27 Printing and publishing industry	23129	278	16932	40339
28/31 Petroleum and chemical industry	17624	356	13755	31735
32 Building materials industry	17827	248	9756	27831
33/37 Metal industry	114314	542	81062	195918
38/39 Industrial manufacturing n.e.c.	6014	255	3386	9654
4 Utilities	19091	154	9378	28624
5 Construction	123696	459	52755	176911
6 Trade, hotels etc., repairs of consumer goods	300038	51566	141962	493565
7 Transport, storage and communication	140160	1831	48761	190752
81/82 Banking and insurance	30715	629	20332	51675
83/99 Services n.e.c. except	181225	30851	244582	456658
90,92 General government	144374	4595	65203	214173
Subtotal industry (SBI 1-5)	552019	12888	375600	940508
Subtotal services	796512	89471	520840	1406824
Total	1716473	161874	1073931	2952279

Table A2.8. Employment by position in the household and by industry (row percent), 1938

	Bread- winners	Married woman	Children	Total
0 Agriculture and fishery	60.8	9.8	29.3	100.0
1 Mining and quarrying	68.3	2.3	29.5	100.0
2/3 Manufacturing of which:	54.8	1.6	43.6	100.0
20/21 Food, beverage and tobacco industry	57.5	1.2	41.3	100.0
22 Textile industry	47.0	3.2	49.9	100.0
23 Wearing apparel industry	38.9	6.0	55.2	100.0
24 Leather and footwear industry	52.7	1.2	46.1	100.0
25 Wood and furniture industry	63.5	0.3	36.2	100.0
26 Paper and paper products industry	50.5	1.1	48.4	100.0
27 Printing and publishing industry	57.3	0.7	42.0	100.0
28/31 Petroleum and chemical industry	55.5	1.1	43.3	100.0
32 Building materials industry	64.1	0.9	35.1	100.0
33/37 Metal industry	58.3	0.3	41.4	100.0
38/39 Industrial manufacturing n.e.c.	62.3	2.6	35.1	100.0
4 Utilities	66.7	0.5	32.8	100.0
5 Construction	69.9	0.3	29.8	100.0
6 Trade, hotels etc., repairs of consumer goods	60.8	10.4	28.8	100.0
7 Transport, storage and communication	73.5	1.0	25.6	100.0
81/82 Banking and insurance	59.4	1.2	39.3	100.0
83/99 Services n.e.c. except	39.7	6.8	53.6	100.0
90,92 General government	67.4	2.1	30.4	100.0
Subtotal industry (SBI 1-5)	58.7	1.4	39.9	100.0
Subtotal services	56.6	6.4	37.0	100.0
Total	58.1	5.5	36.4	100.0

Table A2.9. Employment by position in the household and by industry (column percent), 1938

	Bread- winners	Married woman	Children	Total
0 Agriculture and fishery	21.4	36.8	16.5	20.5
1 Mining and quarrying	1.9	0.7	1.3	1.6
2/3 Manufacturing of which:	21.9	6.9	27.9	23.3
20/21 Food, beverage and tobacco industry	5.4	1.1	6.1	5.4
22 Textile industry	1.8	1.3	3.0	2.2
23 Wearing apparel industry	1.9	3.2	4.4	2.9
24 Leather and footwear industry	0.4	0.1	0.5	0.4
25 Wood and furniture industry	1.6	0.1	1.4	1.4
26 Paper and paper products industry	0.4	0.1	0.6	0.5
27 Printing and publishing industry	1.3	0.2	1.6	1.4
28/31 Petroleum and chemical industry	1.0	0.2	1.3	1.1
32 Building materials industry	1.0	0.2	0.9	0.9
33/37 Metal industry	6.7	0.3	7.5	6.6
38/39 Industrial manufacturing n.e.c.	0.4	0.2	0.3	0.3
4 Utilities	1.1	0.1	0.9	1.0
5 Construction	7.2	0.3	4.9	6.0
6 Trade, hotels etc., repairs of consumer goods	17.5	31.9	13.2	16.7
7 Transport, storage and communication	8.2	1.1	4.5	6.5
81/82 Banking and insurance	1.8	0.4	1.9	1.8
83/99 Services n.e.c. except	10.6	19.1	22.8	15.5
90,92 General government	8.4	2.8	6.1	7.3
Subtotal industry (SBI 1-5)	32.2	8.0	35.0	31.9
Subtotal services	46.4	55.3	48.5	47.7
Total	100.0	100.0	100.0	100.0

Table A2.10. Employment of breadwinners by occupation and by industry, 1938

	Blue collars	White collars	Agricul labourers	Farmers	Self-employed	Total
0 Agriculture and fishery	7309	2866	127833	226677	3256	367942
1 Mining and quarrying	31090	1370			682	33142
2/3 Manufacturing of which:	278245	27864			69981	376090
20/21 Food, beverage and tobacco industry	64462	7098			20485	92045
22 Textile industry	27283	2006			1382	30671
23 Wearing apparel industry	17586	935			14864	33384
24 Leather and footwear industry	5164	394			1183	6741
25 Wood and furniture industry	16634	1073			9401	27107
26 Paper and paper products industry	6477	506			250	7233
27 Printing and publishing industry	17053	3459			2617	23129
28/31 Petroleum and chemical industry	14615	2295			714	17624
32 Building materials industry	15421	1006			1400	17827
33/37 Metal industry	89320	8791			16203	114314
38/39 Industrial manufacturing n.e.c.	4230	300			1484	6014
4 Utilities	14909	4056			126	19091
5 Construction	83500	2526			37669	123696
6 Trade, hotels etc., repairs of consumer goods	96305	36855			166877	300038
7 Transport, storage and communication	97890	18125			24146	140160
81/82 Banking and insurance	4497	23877			2341	30715
83/99 Services n.e.c. except	110517	30944			39764	181225
90,92 General government	67494	76880				144374
Subtotal industry (SBI 1-5)	407744	35817			108458	552019
Subtotal services	376704	186681			233128	796512
Total	791758	225364	127833	226677	344842	1716473

Table A2.11. Employment of breadwinners by occupation and by industry (row percent), 1938

	Blue collars	White collars	Agricul labourers	Farmers	Self-employed	Total
0 Agriculture and fishery	2.0	0.8	34.7	61.6	0.9	100.0
1 Mining and quarrying	93.8	4.1			2.1	100.0
2/3 Manufacturing of which:	74.0	7.4			18.6	100.0
20/21 Food, beverage and tobacco industry	70.0	7.7			22.3	100.0
22 Textile industry	89.0	6.5			4.5	100.0
23 Wearing apparel industry	52.7	2.8			44.5	100.0
24 Leather and footwear industry	76.6	5.8			17.5	100.0
25 Wood and furniture industry	61.4	4.0			34.7	100.0
26 Paper and paper products industry	89.6	7.0			3.5	100.0
27 Printing and publishing industry	73.7	15.0			11.3	100.0
28/31 Petroleum and chemical industry	82.9	13.0			4.1	100.0
32 Building materials industry	86.5	5.6			7.9	100.0
33/37 Metal industry	78.1	7.7			14.2	100.0
38/39 Industrial manufacturing n.e.c.	70.3	5.0			24.7	100.0
4 Utilities	78.1	21.2			0.7	100.0
5 Construction	67.5	2.0			30.5	100.0
6 Trade, hotels etc., repairs of consumer goods	32.1	12.3			55.6	100.0
7 Transport, storage and communication	69.8	12.9			17.2	100.0
81/82 Banking and insurance	14.6	77.7			7.6	100.0
83/99 Services n.e.c. except	61.0	17.1			21.9	100.0
90,92 General government	46.7	53.3			0.0	100.0
Subtotal industry (SBI 1-5)	73.9	6.5			19.6	100.0
Subtotal services	47.3	23.4			29.3	100.0
Total	46.1	13.1	7.4	13.2	20.1	100.0

Table A2.12. Employment of breadwinners by occupation and by industry (column percent), 1938

	Blue collars	White collars	Agricul labourers	Farmers	Self-employed	Total
0 Agriculture and fishery	0.9	1.3	100.0	100.0	0.9	21.4
1 Mining and quarrying	3.9	0.6			0.2	1.9
2/3 Manufacturing	35.1	12.4			20.3	21.9
of which:						
20/21 Food, beverage and tobacco industry	8.1	3.1			5.9	5.4
22 Textile industry	3.4	0.9			0.4	1.8
23 Wearing apparel industry	2.2	0.4			4.3	1.9
24 Leather and footwear industry	0.7	0.2			0.3	0.4
25 Wood and furniture industry	2.1	0.5			2.7	1.6
26 Paper and paper products industry	0.8	0.2			0.1	0.4
27 Printing and publishing industry	2.2	1.5			0.8	1.3
28/31 Petroleum and chemical industry	1.8	1.0			0.2	1.0
32 Building materials industry	1.9	0.4			0.4	1.0
33/37 Metal industry	11.3	3.9			4.7	6.7
38/39 Industrial manufacturing n.e.c.	0.5	0.1			0.4	0.4
4 Utilities	1.9	1.8			0.0	1.1
5 Construction	10.5	1.1			10.9	7.2
6 Trade, hotels etc., repairs of consumer goods	12.2	16.4			48.4	17.5
7 Transport, storage and communication	12.4	8.0			7.0	8.2
81/82 Banking and insurance	0.6	10.6			0.7	1.8
83/99 Services n.e.c. except	14.0	13.7			11.5	10.6
90,92 General government	8.5	34.1			0.0	8.4
Subtotal industry (SBI 1-5)	51.5	15.9			31.5	32.2
Subtotal services	47.6	82.8			67.6	46.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table A2.13. Relation between the 1938 and 1987 household classifications

Household classification in the 1938 SAM	Household classification in the 1987 Socio-economic accounts
	Households with as main source of income:
Agricultural labourers	Blue collar wages
Blue collars	
White collars	White collar wages
Farmers	Entrepreneurial income from agriculture and fishing
Self-employed	Entrepreneurial income from services
Unemployed	Entrepreneurial income from economic activities n.e.c and property income
	Other transfers
Other	Transfers in view of old age

Table A2.14. Income and outlay as a percentage of total uses/resources by household category, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
1938 %							
Compensation of employees	4.7	91.8	80.1	3.3	37.2	0.0	47.1
Mixed income, net	62.3	0.7	0.0	66.2	0.0	0.0	24.6
Operating surplus, net	4.8	3.7	1.9	2.3	4.0	0.6	2.9
Dividends, rents, etc. ^b	28.0	0.0	13.6	24.6	2.3	38.6	14.8
Pension benefits etc.	0.0	1.3	4.3	3.1	2.8	57.8	5.8
Social benefits ^b	0.2	2.6	0.1	0.5	53.7	2.4	4.7
Unrequited current transfers ^b	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Total resources	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Premiums pension and life insurance	1.0	2.7	6.6	5.5	3.4	0.0	3.9
Employers' social contributions	0.2	4.4	4.9	0.3	1.1	0.0	2.4
Current taxes	7.1	2.2	9.8	10.7	0.6	9.7	6.8
Final consumption	81.8	90.2	74.9	79.9	96.0	83.3	83.5
Saving, net	9.9	0.6	3.8	3.6	-1.1	7.0	3.3
Total uses	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1987							
Compensation of employees	8.0	99.6	99.6	7.7	12.3	3.5	67.4
Mixed income, net	85.0	0.6	1.1	68.9	2.0	1.1	10.1
Operating surplus, net	4.7	3.2	3.6	5.2	2.0	3.3	3.5
Dividends, rents, etc. ^b	2.8	-1.7	-1.5	14.9	1.5	8.8	1.8
Pension benefits etc.	3.5	1.5	1.4	7.8	9.6	69.0	11.7
Social benefits ^b	-4.4	-2.8	-3.7	-4.3	70.1	14.2	5.6
Unrequited current transfers ^b	0.3	-0.4	-0.6	-0.2	2.6	0.1	-0.1
Total resources	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Premiums pension and life insurance	3.6	5.3	7.2	4.9	0.7	0.5	5.1
Employers' social contributions	1.6	17.2	16.1	1.4	2.9	0.9	11.2
Current taxes	13.1	11.1	12.7	18.4	7.4	10.9	12.2
Final consumption	37.5	69.7	61.8	46.6	93.5	79.5	66.2
Saving, net	44.2	-3.3	2.2	28.7	-4.5	8.2	5.3
Total uses	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a) Including agricultural labourers.

b) Receipts minus payments.

Table A2.15. Consumption expenditure by household category, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
1938	mln gld						
Food	167	592	176	219	156	94	1404
Groceries	56	183	54	71	52	29	445
Dairy products	26	84	24	30	19	14	198
Bread and pastry	33	136	32	38	41	21	301
Potatoes, vegetables and fruit	18	76	29	39	21	13	197
Meat and meat products	29	100	29	33	20	16	228
Fish and fish preserves	4	12	8	8	2	1	35
Stimulants	30	80	41	62	16	15	244
Tobacco products	16	54	20	20	11	10	131
Beverages	14	26	21	42	5	5	113
Durable consumer goods	85	223	138	198	41	42	727
Textiles and clothing	52	116	75	101	19	22	385
Footwear and leatherware	9	36	13	19	8	5	90
Household articles and interior decorating	24	71	50	78	14	14	252
Durable consumer goods n.e.c.	0	0	0	0	0	0	0
Dwelling services	62	257	118	186	59	45	726
Housing	43	177	82	124	39	31	496
Electricity, gas and water	9	52	26	44	11	10	152
Other dwelling services	10	29	10	18	8	4	79
Other goods and services	129	291	269	438	67	75	1269
Expenditure in hotels, cafes and restaurants	20	41	31	35	7	17	151
Entertainment services	10	36	32	57	4	6	146
Transport and communication	16	25	37	63	5	5	151
Health services	15	45	25	37	18	9	149
Goods and services n.e.c.	68	144	144	246	32	39	672
Consumption expenditure abroad	0	5	15	19	0	3	42
Final consumption expenditure of households	473	1448	757	1122	338	274	4412

1987							
Food	851	6398	15113	2250	4731	5312	34655
Groceries	177	1306	3021	416	1033	950	6903
Dairy products	159	1168	2766	412	879	940	6324
Bread and pastry	187	1230	2938	419	848	1129	6751
Potatoes, vegetables and fruit	91	910	2216	334	678	868	5097
Meat and meat products	224	1617	3757	591	1147	1242	8578
Fish and fish preserves	13	167	415	78	146	183	1002
Stimulants	138	1754	4150	534	1507	1213	9296
Tobacco products	51	727	1626	185	732	532	3853
Beverages	87	1026	2525	349	775	681	5443
Durable consumer goods	1102	10420	27359	3651	5697	6396	54624
Textiles and clothing	418	3287	8453	1377	1780	2416	17731
Footwear and leatherware	93	832	2114	324	499	421	4283
Household articles and interior decorating	299	3102	8112	1004	1708	1838	16063
Durable consumer goods n.e.c.	292	3199	8680	946	1710	1721	16547
Dwelling services	873	7745	19416	3034	6394	8352	45814
Housing	577	5390	13758	2136	4385	5690	31936
Electricity, gas and water	249	1930	4577	750	1708	2284	11498
Other dwelling services	47	425	1081	148	301	378	2380
Other goods and services	1404	13288	36593	5088	12266	14513	83152
Expenditure in hotels, cafes and restaurants	177	1770	4664	658	1119	1124	9512
Entertainment services	106	904	2430	394	637	1006	5476
Transport and communication	95	1098	2811	344	1062	1164	6574
Health services	190	2469	6580	702	4660	4887	19488
Goods and services n.e.c.	836	7047	20108	2991	4788	6332	42102
Consumption expenditure abroad	133	2009	5989	871	1133	1895	12030
Final consumption expenditure of households	4500	41615	108620	15428	31728	37681	239572

a) Including agricultural labourers.

Table A2.16. Per household consumption expenditure by household category, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
1938	guilders						
Food	735	644	782	635	501	651	646
Groceries	247	199	239	205	167	203	205
Dairy products	117	91	107	88	61	96	91
Bread and pastry	146	148	142	110	132	145	139
Potatoes, vegetables and fruit	80	83	129	113	69	87	90
Meat and meat products	129	109	130	96	66	112	105
Fish and fish preserves	18	13	35	23	6	8	16
Stimulants	132	87	182	180	51	103	112
Tobacco products	71	59	89	58	35	69	60
Beverages	62	28	93	122	16	34	52
Durable consumer goods	377	243	612	574	131	287	335
Textiles and clothing	229	126	333	293	61	154	177
Footwear and leatherware	40	39	58	55	26	34	41
Household articles and interior decorating	108	77	222	226	44	98	116
Durable consumer goods n.e.c.	0	0	0	0	0	0	0
Dwelling services	272	280	523	540	188	310	334
Housing	190	192	364	360	125	214	228
Electricity, gas and water	40	56	115	129	36	70	70
Other dwelling services	43	31	44	52	27	27	36
Other goods and services	569	317	1193	1271	215	517	584
Expenditure in hotels, cafes and restaurants	88	45	138	101	23	117	70
Entertainment services	46	39	142	167	14	38	67
Transport and communication	70	27	164	183	17	37	70
Health services	67	49	111	107	59	59	69
Goods and services n.e.c.	298	157	639	713	103	266	309
Consumption expenditure abroad	0	5	67	55	0	21	19
Final consumption expenditure of households	2086	1575	3360	3255	1087	1889	2031

1987							
Food	9250	6179	6953	7450	4996	4583	6070
Groceries	1924	1261	1390	1377	1091	820	1209
Dairy products	1728	1128	1272	1364	928	811	1108
Bread and pastry	2033	1188	1352	1387	895	974	1183
Potatoes, vegetables and fruit	989	879	1019	1106	716	749	893
Meat and meat products	2435	1562	1728	1957	1211	1072	1503
Fish and fish preserves	141	161	191	258	154	158	176
Stimulants	1500	1694	1909	1768	1591	1047	1628
Tobacco products	554	702	748	613	773	459	675
Beverages	946	991	1161	1156	818	588	953
Durable consumer goods	11976	10064	12587	12089	6015	5518	9568
Textiles and clothing	4543	3174	3889	4560	1880	2085	3106
Footwear and leatherware	1011	804	972	1073	527	363	750
Household articles and interior decorating	3250	2996	3732	3325	1804	1586	2814
Durable consumer goods n.e.c.	3171	3089	3994	3132	1805	1485	2898
Dwelling services	9484	7480	8933	10046	6752	7206	8025
Housing	6272	5206	6330	7073	4630	4909	5594
Electricity, gas and water	2707	1864	2106	2483	1804	1971	2014
Other dwelling services	506	410	498	489	318	326	417
Other goods and services	15258	12834	16835	16848	12952	12522	14565
Expenditure in hotels, cafes and restaurants	1924	1709	2146	2179	1182	970	1666
Entertainment services	1147	873	1118	1303	673	868	959
Transport and communication	1033	1060	1293	1139	1121	1004	1152
Health services	2069	2385	3027	2324	4921	4216	3414
Goods and services n.e.c.	9086	6806	9251	9903	5056	5464	7375
Consumption expenditure abroad	1446	1940	2755	2884	1196	1635	2107
Final consumption expenditure of households	48914	40191	49973	51085	33504	32511	41964

a) Including agricultural labourers.

Table A2.17. Per capita consumption expenditure by household category, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
1938							
	guilders						
Food	174	155	204	176	103	331	162
Groceries	58	48	62	57	34	103	51
Dairy products	28	22	28	24	13	49	23
Bread and pastry	34	36	37	30	27	74	35
Potatoes, vegetables and fruit	19	20	34	31	14	44	23
Meat and meat products	30	26	34	27	14	57	26
Fish and fish preserves	4	3	9	6	1	4	4
Stimulants	31	21	47	50	11	53	28
Tobacco products	17	14	23	16	7	35	15
Beverages	15	7	24	34	3	18	13
Durable consumer goods	89	58	160	159	27	146	84
Textiles and clothing	54	30	87	81	13	78	44
Footwear and leatherware	9	9	15	15	5	18	10
Household articles and interior decorating	25	19	58	63	9	50	29
Durable consumer goods n.e.c.	0	0	0	0	0	0	0
Dwelling services	64	67	137	149	39	158	84
Housing	45	46	95	99	26	109	57
Electricity, gas and water	9	13	30	36	7	35	18
Other dwelling services	10	8	12	14	6	14	9
Other goods and services	134	76	312	351	44	263	146
Expenditure in hotels, cafes and restaurants	21	11	36	28	5	60	17
Entertainment services	11	9	37	46	3	19	17
Transport and communication	16	7	43	51	4	19	17
Health services	16	12	29	30	12	30	17
Goods and services n.e.c.	70	38	167	197	21	135	77
Consumption expenditure abroad	0	1	17	15	0	11	5
Final consumption expenditure of households	493	379	877	900	224	962	508

1987							
Food	2351	2111	2386	2625	2357	2988	2412
Groceries	489	431	477	485	515	534	480
Dairy products	439	385	437	481	438	529	440
Bread and pastry	517	406	464	489	423	635	470
Potatoes, vegetables and fruit	251	300	350	390	338	488	355
Meat and meat products	619	533	593	690	571	699	597
Fish and fish preserves	36	55	66	91	73	103	70
Stimulants	381	579	655	623	751	682	647
Tobacco products	141	240	257	216	365	299	268
Beverages	240	339	399	407	386	383	379
Durable consumer goods	3044	3437	4319	4260	2838	3597	3801
Textiles and clothing	1155	1084	1334	1607	887	1359	1234
Footwear and leatherware	257	275	334	378	249	237	298
Household articles and interior decorating	826	1023	1281	1172	851	1034	1118
Durable consumer goods n.e.c.	806	1055	1370	1104	852	968	1152
Dwelling services	2410	2555	3065	3540	3186	4697	3188
Housing	1594	1778	2172	2492	2185	3200	2222
Electricity, gas and water	688	637	722	875	851	1285	800
Other dwelling services	129	140	171	172	150	212	166
Other goods and services	3878	4383	5777	5937	6112	8163	5787
Expenditure in hotels, cafes and restaurants	489	584	736	768	558	632	662
Entertainment services	291	298	384	459	317	566	381
Transport and communication	262	362	444	401	529	655	457
Health services	526	815	1039	819	2322	2748	1356
Goods and services n.e.c.	2309	2325	3174	3490	2386	3561	2930
Consumption expenditure abroad	367	663	945	1016	565	1066	837
Final consumption expenditure of households	12431	13727	17148	18002	15809	21193	16672

a) Including agricultural labourers.

Table A2.18. Consumption expenditures as a percentage of total consumption by household category, 1938 and 1987

	Farmers	Blue ^a collars	White collars	Self- employed	Un- employed	Other	Total
	1938	%					
Food	35.3	40.9	23.3	19.5	46.1	34.4	31.8
Groceries	11.8	12.7	7.1	6.3	15.4	10.7	10.1
Dairy products	5.6	5.8	3.2	2.7	5.7	5.1	4.5
Bread and pastry	7.0	9.4	4.2	3.4	12.1	7.7	6.8
Potatoes, vegetables and fruit	3.8	5.3	3.8	3.5	6.3	4.6	4.5
Meat and meat products	6.2	6.9	3.9	2.9	6.1	5.9	5.2
Fish and fish preserves	0.8	0.8	1.1	0.7	0.6	0.4	0.8
Stimulants	6.3	5.5	5.4	5.5	4.7	5.5	5.5
Tobacco products	3.4	3.7	2.6	1.8	3.3	3.7	3.0
Beverages	3.0	1.8	2.8	3.7	1.5	1.8	2.6
Durable consumer goods	18.1	15.4	18.2	17.6	12.0	15.2	16.5
Textiles and clothing	11.0	8.0	9.9	9.0	5.6	8.1	8.7
Footwear and leatherware	1.9	2.5	1.7	1.7	2.4	1.8	2.0
Household articles and interior decorating	5.2	4.9	6.6	7.0	4.1	5.2	5.7
Durable consumer goods n.e.c.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dwelling services	13.1	17.8	15.6	16.6	17.3	16.4	16.5
Housing	9.1	12.2	10.8	11.0	11.5	11.3	11.2
Electricity, gas and water	1.9	3.6	3.4	4.0	3.3	3.7	3.4
Other dwelling services	2.1	2.0	1.3	1.6	2.5	1.4	1.8
Other goods and services	27.3	20.1	35.5	39.0	19.8	27.4	28.8
Expenditure in hotels, cafes and restaurants	4.2	2.8	4.1	3.1	2.1	6.2	3.4
Entertainment services	2.2	2.5	4.2	5.1	1.3	2.0	3.3
Transport and communication	3.3	1.7	4.9	5.6	1.6	2.0	3.4
Health services	3.2	3.1	3.3	3.3	5.4	3.1	3.4
Goods and services n.e.c.	14.3	10.0	19.0	21.9	9.4	14.1	15.2
Consumption expenditure abroad	0.0	0.3	2.0	1.7	0.0	1.1	1.0
Final consumption expenditure of households	100.0	100.0	100.0	100.0	100.0	100.0	100.0

	1987						
Food	18.9	15.4	13.9	14.6	14.9	14.1	14.5
Groceries	3.9	3.1	2.8	2.7	3.3	2.5	2.9
Dairy products	3.5	2.8	2.5	2.7	2.8	2.5	2.6
Bread and pastry	4.2	3.0	2.7	2.7	2.7	3.0	2.8
Potatoes, vegetables and fruit	2.0	2.2	2.0	2.2	2.1	2.3	2.1
Meat and meat products	5.0	3.9	3.5	3.8	3.6	3.3	3.6
Fish and fish preserves	0.3	0.4	0.4	0.5	0.5	0.5	0.4
Stimulants	3.1	4.2	3.8	3.5	4.7	3.2	3.9
Tobacco products	1.1	1.7	1.5	1.2	2.3	1.4	1.6
Beverages	1.9	2.5	2.3	2.3	2.4	1.8	2.3
Durable consumer goods	24.5	25.0	25.2	23.7	18.0	17.0	22.8
Textiles and clothing	9.3	7.9	7.8	8.9	5.6	6.4	7.4
Footwear and leatherware	2.1	2.0	1.9	2.1	1.6	1.1	1.8
Household articles and interior decorating	6.6	7.5	7.5	6.5	5.4	4.9	6.7
Durable consumer goods n.e.c.	6.5	7.7	8.0	6.1	5.4	4.6	6.9
Dwelling services	19.4	18.6	17.9	19.7	20.2	22.2	19.1
Housing	12.8	13.0	12.7	13.8	13.8	15.1	13.3
Electricity, gas and water	5.5	4.6	4.2	4.9	5.4	6.1	4.8
Other dwelling services	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Other goods and services	31.2	31.9	33.7	33.0	38.7	38.5	34.7
Expenditure in hotels, cafes and restaurants	3.9	4.3	4.3	4.3	3.5	3.0	4.0
Entertainment services	2.3	2.2	2.2	2.6	2.0	2.7	2.3
Transport and communication	2.1	2.6	2.6	2.2	3.3	3.1	2.7
Health services	4.2	5.9	6.1	4.5	14.7	13.0	8.1
Goods and services n.e.c.	18.6	16.9	18.5	19.4	15.1	16.8	17.6
Consumption expenditure abroad	3.0	4.8	5.5	5.6	3.6	5.0	5.0
Final consumption expenditure of households	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a) Including agricultural labourers.

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**Netherlands Central Bureau of Statistics
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 make and use tables and input-output tables**, Bloem, Adriaan M., Sake De Boer and Pieter Wind (1990, forthcoming).
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.
- 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-UN-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 modified national accounting system tailored to a description of the role of Research and Development (R&D) in the national economy. The main differences with the standard National Accounts are some changes in basic concepts (e.g. own-account production of R&D is considered as capital formation) and the introduction of additional, more detailed, classifications (e.g. new subsectors).
- 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, forthcoming).
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.
- NA/58 Major changes and results of the revision of the Dutch National Accounts in 1992**, Department of National Accounts (1992, forthcoming).
The revision 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.

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