Background Facts
on
Economic Statistics

2004:12

Net lending in the Swedish economy

Analysis of differences in net lending
National accounts (NA) – Financial accounts (FA)

Background – comparisons - analysis

Department of Economic Statistics

Avdelningen för Ekonomisk statistik

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About the figures:

- Information for 1995 – 2002 is based annual calculations from the National Accounts and the Financial Accounts from November/December 2003. This also applies to the GDP for 1980 onwards.

- Information from 1970 up until the end of 1994 is from the older time series, mainly according to SNA 68, which is still not adapted to ESA95. However, household savings have been corrected so that savings in labour market insurances are included in the whole series (this was not so previously).

- Comparisons for the annual Structural Business Statistics (SBS) and the National Accounts/Financial Accounts are for the years 1997-2001.

- The illustrative example in chapter 2 is from 2000.

Monetary amounts are given in whole SEK billions. Due to rounding off, totals and sub-totals may deviate from sums of reported values.

0 Conclusions of the status report

The National and Financial Accounts are "closed" accounting systems with identity between income and expenditure as well as between financial assets and liabilities. Among other things, this means that calculations of GDP determine the level of total income in the Swedish economy, which is a restriction when net lending is calculated for the different institutional sectors.

Normally, there are significant differences between net lending calculated according to the NA and the FA, respectively. These discrepancies increased dramatically in the late 1980s, and have since remained at unacceptably high levels. These considerable discrepancies create uncertainty about the quality of the statistics, and involve problems during analysis of household savings, corporate savings, government savings and the balance of current accounts.

The project "Analysis of differences between net lending NA and FA" started in 2002. The objective is to obtain better consistency between the NA and the FA by looking at the problems, discussing how to alleviate them and make suggestions.

So far, the project has mainly focused on non-financial corporations. Some preliminary conclusions follow:

- The coherent material in the Structural Business Statistics forms a good basis for sectoral accounting for non-financial corporations
- Especially large corporations should be studied in particular
- The large differences between NA and FA regarding return on capital (especially dividends) need to be examined
- Differences in gross investments between NA - FA should be studied.

Work with the other sectors - financial corporations, government sector, household sector and the rest of the world will be studied in specific sub-projects in 2004. Return on capital for all sectors will be studied in a special sub-project.

The project will be completed in December 2004. At that time, in addition to the final reports from sub-projects, questions on reconciliation procedures, experience from other countries and questions on the organisation of the work will be taken up. Proposals for measures to reduce discrepancies between net lending calculations of the NA and FA will also be presented.

1 Background (sectoral accounts)

1.1 Today's statistics system – a description of the problems

Net lending is known as a balancing item[1] in the system of National Accounts. Net lending differs from other balancing items in that it is usually calculated from two different directions, and is often also reported with two different values. First of all, in the Financial Accounts (FA), net lending consists of net investments in the form of financial assets minus liabilities. A negative net lending means that a sector needs to borrow to cover the deficit. Secondly, in the non-financial National Accounts (NA), net lending is defined and calculated as income minus expenditures. Net lending can thus be calculated in two ways. It is unusual to obtain the same results in the NA and the FA. Discrepancies of varying degrees occur. These discrepancies cause trouble in the statistics, especially for users of macro-economic statistics.

The problem of insufficient comparability between the NA and the FA is not a new one. During the last few decades, this problem has been given attention and studied several times. In addition to efforts from Statistics Sweden, several public studies, articles and similar have treated the problem. [2] These efforts have often coincided with a general focus on problems in connection with economic crises. The weak balance of current accounts and low household savings during the 1980s, and the government financial crisis of the 1990s are some examples of these problems. Deregulation and structural transformations in industry are sometimes listed as causes of the problems in measuring net lending; in recent years, industrial globalisation is listed as a major reason.

Most countries with developed national and financial accounts have similar problems. Eurostat has studied the situation in different countries and has issued some general recommendations. The European Central Bank, ECB, has paid notice to the problem.

It is important to reduce the discrepancies to an acceptable level, not only to obtain better information for institutional sectoral analyses, but also to improve the quality of the whole system of national accounts.

The significant discrepancies in net lending indicate serious problems of consistency in economic statistics. A common understanding, often well founded, is that the financial flows are irregularly volatile and difficult to capture in the statistics. Therefore, financial measurements of net lending are often met with scepticism, and discrepancies are considered to be deductively related to a lack of quality of financial market statistics. However, experience from more complex studies on quality and comparisons between the two ways of measurement often show that deficiencies are revealed in the non-financial statistics. Calculations of net lending from two areas are therefore an important quality instrument for financial statistics and financial accounts as well as for the non-financial accounts.

A general reflection based on experience from the work of several decades with consistency problems is that institutional sectoral accounts are not prioritised in the same way was the product accounts in the NA. For example:

1. Publishing of detailed tables for sectoral accounts has been reduced.

2. It is certain that coordination and cooperation between the NA and the FA could be more extensive, since the objective is to achieve a joint product.

3. It is apparent that the new Structural Business Statistics, SBS, have not yet become a foundation pillar for economic statistics as was once intended when the re-structuring began in the mid 1990s.

[1] Examples of other balancing items are value added, operating surplus, disposable income and savings.
[2] Reports mainly in Swedish.

4. Lack of resources is one of the reasons for not giving priority to sectoral accounts. Product accounts with important GDP calculations and increasing requirements from the EU have naturally been exempted to the extent possible from reductions that have affected other parts of economic statistics.

5. Working methods are also important. Experience from other countries indicates that undifferentiated real and financial calculations result in better quality, better basis for analysis and a considerably increased use of the statistics.[3].

1.2 The project "net lending"

The project "net lending"[4]started in 2002. The objective is to obtain better consistency between the NA and the FA by looking at the problems and discussing how to alleviate them. The unit for economic analysis in the Department for Economic Statistics (ES) is managing the project. There is also a steering group consisting of heads of the concerned statistics units and departmental director and a project group with representatives from the concerned statistical units. A number of sub-projects are connected to the main project (see below).

Sub-projects:
6. Non-financial corporations
7. Financial institutions
8. Return on capital
9. Insurance
10. Households
11. Government sector
12. Rest of the world

So far, the work has concentrated on mapping of data and discrepancies, analyses of return on capital and making this report. The report primarily describes the background of the project, points out analysis areas for net lending, sheds light on discrepancies and their possible causes, and drafts plans for continued work. Education is an important aspect of the work. One part of the report contains an educational description of concepts and relationships within subject areas. A number of seminars have been held for staff at Statistics Sweden. The project has also been presented abroad at workshops for the EU accession countries[5], and at a conference held by Statistics Sweden on quality of economic statistics (Saltsjöbaden, October 2003).

The project will be finalised in December 2004 and will be covered in a final report.

1.3 Outline of the report

Chapter 2 contains a description of national and financial accounts from a sectoral perspective (connection, examples of figures). The chapter also treats balance sheets and holding gains.

Chapter 3 describes and analyses the development of net lending during the last decades and certain current questions.

Chapter 4 treats discrepancies and residual entries with emphasis on non-financial corporations before the problem is studied in more detail within the frame of the project.

[3] Working methods and organisation will be studied in more detail in future project work. Benchmark studies with other countries will then be done.
[4] Investigations within Statistics Sweden of the differences in net lending in the National Accounts, NA - Financial Accounts, FA.
[5] under the direction of Eurostat in Bratislava (2001), Tallinn (2002) and Budapest (2003).

2 National and financial accounts from a sectoral perspective. Brief description

- National accounts are more than GDP
- Net lending is a balancing item that gives important information for economic policy.
- Net lending is an instrument for quality control in economic statistics.

There are various ways to describe the system of national accounts and their basic characteristics, purpose, etc. A description could be as follows:

The national accounts system is a set of concepts, definitions and classifications based on international recommendations and regulations (System of National Accounts, SNA 93 and European System of Accounts, ESA 95). The objective is to lay the foundation for decisions and analyses of economic structure and development, economic behaviour, economic decision-making and economic policy. The national accounts are a refinement of economic statistics, a coordinating tool where economic theory, statistical methods and how to best use economic primary statistics are important components.

Fundamental identities
National accounts are based on the connection between production, income and expenditure in the economy. This is reflected in the calculation of GDP which can be done in three different ways: from the production side, from the income side and from the expenditure side.

In the national accounts, it is important to distinguish between:
a) market products, and
b) non-market products

Market products are goods and services that are purchased on a market with buyers and sellers, while non-market products are services provided for by the government sector through financing via taxes and fees. This distinction is essential if we are to meaningfully break down the economy into societal sectors. Put into simple terms, market producers are synonymous with the corporate sector while non-market producers belong to the government or household sector.

In the institutional sectoral division, it is desirable to group the players that make decisions about their own economy, i.e. **the institutional units** (corporations, authorities, households), so that the sectors will be more or less homogeneous with regard to economic activity.

Thus we arrive at the following:

Main sector	Characteristics
Non-financial corporations	Market producers of goods and non-financial services
Financial corporations	Market producers of financial services
Government sector (central government, municipalities and social insurance)	Producers of public-financed non-market services. Distribution of resources after political decisions.
Households including unincorporated enterprises	Consumers as well as certain production of market products.
Households' non-profit organisations	Producers of private non-market products
Rest of the world	Fictive sector consisting of the counterpart of Swedish sectors' transactions and position abroad

If we apply the rough sectoral divisions in the three ways to calculate GDP, we arrive at the results below. We have chosen the year 2000 as an illustrative example. "Corporations" includes both financial and non-financial corporations.

Table 1
GDP from production side in 2000, SEK billions.

	Corporations	Public	Households	Rest of the world	Total
Market products	2 876	55	512		3 443
Non-market products	1	609	35		645
Intermediate consumption	1 651	259	255		2 165
Value added	1 226	405	292		1923
Indirect taxes minus subsidies					273
Total					**2 195**
					GDP

Here we see that market products are concentrated to the corporate sector while non-market products land in the government sector. Even households are to a significant extent market producers. This is because the personal enterprises are a part of the household sector, and also that production values for home owners are imputed in the National Accounts (this does not affect the net lending in that even private consumption increases by the corresponding amount; The NA wants to have comparable "rental figures" for living, regardless if one rents or owns their housing).

The total gross production is not the same as GDP. Much of what is produced in industry is purchased by other corporations and is used in production at a later stage. "Intermediate consumption" is the total value of intermediate goods and services, and accordingly must be removed from the gross production value in order to arrive at the added value that is produced, i.e. value added. GDP is measured at market value, and VAT and other production taxes minus subsidies must be added to arrive at GDP evaluated at market price.

Value added generates incomes for the factors of production (labour and capital) that have contributed to GDP, and thus we arrive at the expression factor incomes. Compensation to the labour force occurs in the form of wages and salaries etc, while compensation to capital is in the form of gross operational surplus (gross means that depreciation has not been deducted). As an alternative, GDP can thus be calculated as the sum of what are known as factor incomes in the economy, i.e. GDP calculated from the income side.

Factor incomes form the bases on how incomes are broken down into different sectors, and this occurs via transfers as a result of political decisions and return on assets and liabilities (property income). Taxes, interest and dividends are several examples. Factor incomes and

transfers (including property income) added together result in gross disposal income for the different sectors and for the total economy (GDP).

After the re-structuring of ESA/95, new terminology is used, and primary and secondary incomes are broken down. Accordingly, property income is reported as primary income. Further, the item "adjustment of household savings in occupational pensions" is reported separately after the total disposable income. For educational purposes and to increase clarity, tables 1 and 2 use the old concepts. "Factor income" comprise wages and salaries (including collective fees), operational surplus and product taxes (net), while the above-mentioned adjustment item is reported under transfers. This also means that "disposable income" is higher for households and lower for corporations than the officially reported values.

Table 2
GDP as income and expenditures. Net lending. SEK billions, year 2000

	Corporations	Public	Households	Rest of the world	Total
"Factor income"	353	373	1 464	5	**2 195**
Transfer payments	-97	379	-318	36	0
Disposable income	256	752	1 146	41	**2 195**
Consumption		583	1 078		1 661
Gross capital formation	304	58	44		406
Net exports				128	128
Expenditure, total	304	641	1 122	128	**2 195**
					GDP
Net lending	-48	111	24	-87	0

Expenditure comprise consumption and gross capital formation for the domestic sectors, while net export is an expenditure for the fictive rest of the world sector. Added together, the expenditure also form GDP.

The level of GDP is determined in the Swedish national accounts primarily from the user side, as the sum of expenditure for consumption, investments (including changes in inventories) and net exports.

Here, net exports shall be seen as a correction of expenses. Some of the goods and services that are consumed/invested in have been imported and must be deducted to determine what has been produced in the country. This is also the case for exports. Some of the goods and services produced in the country are exported and must be added to domestic use to arrive at GDP from the user side.

By deciding the level of GDP, total income in the national economy has also been decided on, the income originating from production. However, there are other sources of income that can be used for consumption and investments. We will return to this matter at the end of this section.

By adding income and expenses together for each institutional sector, we arrive at net lending. A plus sign shows that the sector has not spent all their income. If this is the case, there is a financial surplus that can be invested in different financial assets or be used to pay off debts. Correspondingly, a minus sign indicates a financial deficit that must be financed by borrowing or by selling financial assets.

In reality, this is not so simple. First of all, the sectors on this aggregated level consist of a large number of institutional units that can have both plus and minus signs in their net lending. Secondly, most corporations, households and public authorities are both lenders and borrowers. Money can be deposited at the bank while loans can be taken out at the same

time. In this connection, net lending for the rest of the world sector (minus SEK 87 billion in Table 2 above) corresponds to the balance on current accounts with reversed signs.

*We can thus calculate net lending in two ways – **either** as income minus expenses **or** by measuring how savings and borrowing have been handled on the financial markets. Financial accounts use the last-mentioned method.*

Whether or not net lending is calculated from the NA or the FA, it is reflected, in the total perspective, if the sector has a surplus of savings or a need for financing. And, as already mentioned, the separate institutional units can have both. Here we can see the financial sector's central role as an intermediary in the FA (FC in Table 3 below).

Financial accounts belong to the institutional sector accounts and show how the different sectors acquire and dispose of financial assets and debts within the frame of a closed accounting system. The following Table 3 shows an aggregated picture of the financial accounts. These figures are also from 2000. The broad breakdown by sectors is the same as in previous examples, this time including the financial corporate sector. The reason for this breakdown of the corporate sector is because banks, other financial institutions and insurance companies have a central role in the financial accounts. What is fundamental in the financial accounts is to show the types of financial assets and debts that are used for lending and borrowing. Liquidity, risks and redemption date are given as classification criteria.

Table 3
Financial accounts – transactions in 2000. SEK billions

	NFC	FC	GOV	HOUS	ROW	TOTAL
Assets	954	523	2	115	278	1872
Bank deposits	0	187	-4	-9	282	456
Loans	247	225	-8	0	54	518
Securities	451	148	15	-1	-86	527
Insurance				123		123
Other	256	-37	-1	2	28	248
Liabilities	908	602	-69	100	332	1872
Bank deposits		380	1		74	456
Loans	280	44	8	96	91	518
Securities	400	94	-120		153	527
Insurance	2	114	6			123
Other	226	-30	36	4	14	248
Net lending	46	-79	71	15	-54	0

Relationships and identities

In the non-financial accounts, i.e. the real national accounts, the identity between income and expenditure is fundamental. In the financial accounts, the sum of financial assets and liabilities shall always be the same. This is illustrated in Table 3, but it also applied to every separate financial object. This is because what we define as an asset/a liability must always have a counter item in the system. A bank deposit means that you have a claim on the bank, while the bank has a corresponding liability to you. A holding of shares is a claim on a corporation. The corporation has exactly the same size of liability to the shareholder and so forth. This also means that guarantees, certain obligations and appropriations are not registered as liabilities in the financial accounts, since these cannot be identified to any specific creditor. Unfunded pension obligations in the government sector are one such example.

That financial assets and liabilities are alike (see Table 3) is not because the basic information is absolutely perfect, but is rather an identity/restriction in the system. Accordingly, "residuals must be imputed" in the calculations so as to get a complete picture. This is illustrated below.

Assume that we have good knowledge about the total outstanding bond debt for a specific borrower in the Swedish economy, but we do not have comprehensive information on the holdings of the investors. The residual (unknown holdings) that occurs must then be allocated to someone or some sectors where the primary basic information is relatively more uncertain.

We can now compare the calculations of net lending according to NA and FA, respectively. The results are as follows.

Table 4
Net lending NA, FA in 2000. SEK billions

	Corporations	Government	Households	Rest of the world	Total
Net lending according to NA	-48	111	24	-87	0
Net lending NA, FA	-33	71	15	-54	0
Discrepancy	-15	40	9	-33	0

The differences in net lending in Table 4 are quite large. In 2000, the discrepancy in the government sector is unusually large (for more information, see Table 22).

Even if two values are reported in the statistics, the value reported in the non-financial calculations of the NA is the official value. An example is the government sector's net lending according to convergence criteria and stability pact, households' savings ratios and the balance of current accounts.

Previously, the national and financial accounts have been illustrated in a rather condensed form from an institutional sectoral accounts perspective. It should be noted that all figures are in current prices, and are not seasonally adjusted. Thus, the problems with prices and volumes are not relevant for sectoral accounts.

When speaking of "transactions" in the previous text, we refer to the following:

***Transactions** are defined as changes in assets and liabilities, adjusted from changes in values and reclassifications, if any. There are three main types of transactions; (1) purchase and sales of transferable financial objects such as shares and bonds, (2) changes in assets and liabilities as a result of withdrawals and deposits, loan-taking and repayment of loans and (3) the difference between payments and economic activity, delivery of a commodity or other accrued receivables/payables. Examples of these kinds of transactions are trade credits and tax refunds.*

Balance sheets, holding gains

Up until now, we have only treated the section on financial accounts that covers the transactions (the financial flows). There are also balance sheets. Transactions and balances (outstanding values) are connected according to the tableau below where non-financial and financial assets are shown. To get a complete picture, intangible assets must also be included. For example, licenses, royalties, trademarks etc. can have a great significance when evaluating certain corporations[6]. It should also be mentioned that non-financial assets

[6]In principle, intangible liabilities can also occur, for example, if the share value of a corporation is affected negatively by environmental requirements etc.

refer only to those assets that exist in domestic territory. All ownership abroad is regarded as financial, including ownership of real estate.

Explanations for Table 5

Columns 2, 4 and 5 (opening balance, holding gains, closing balance):
NF = non-financial assets
F = financial instrument (see rough breakdown in Table 3)
FA = financial assets
L = liabilities
NW = net worth

Column 3 (transaction):
I = investments (real net savings)
N = Net lending
S = net savings (e.g. households' savings ratio S/Y)

Table 5
Balance sheets, transactions, holding gains

	Opening balance, ob	Transaction	Holding gains etc[7], r	Closing balance, cb
ASSETS/LIABILITIES				
Non-financial	NF	**I**	NF	NF
Gross capital formation		**GCF**		
– Consumption of fixed capital		**CFC**		
Financial	F	**F**	F	F
Assets	FA	**FA**	FA	FA
– Liabilities	L	**L**	L	L
= Net worth	NW	**S**	NW	NW
INCOME/EXPENDITURE			Alternative?	
Disposable income		**Y**		
– Consumption		**C**		
= Savings		**S**		

This connection applies to a single institutional sector or to the total economy, and NW accordingly corresponds to the national wealth.

The savings equation is essential, i.e. savings = Y-C or I + F or NW, cb - NW, ob - NW, r. It also illustrates why the definition of disposable income, Y in NA cannot easily be changed by supplementing with holding gains (see arrow). It would mean that the concept of transaction needs to be correspondingly changed, both regarding gross investments and net lending.

This also applies to revaluations in total, i.e. all holding gains, regardless if they have been realised or not. A common question is then:

Why is it that realised holding gains cannot be included in disposable income for households, despite that these are to the highest degree concrete and monetary, and can be used for consumption?

To answer this question we need to further explain the reasoning somewhat.

[7]Included here are all revaluations that change market value (or similar) except of course the transactions. Revaluations due to re-classification are also included.

Holding gains - realised and not realised

Holding gains occur when the value of an asset or liability increases or decreases due to price changes. In principle, all assets and liabilities shall be evaluated according to the market. One such example is when a share portfolio increases or decreases in value. When the value rises, one becomes wealthier without a change in disposable income or savings, and when the market falls, wealth decreases correspondingly, while income and savings remain the same. Holding gains that are not realised are more or less fictive, since it is only when an asset is sold that money can be used.[8] In addition, in Sweden holding gains taxes are paid for certain instruments, meaning that the market value contains a latent tax liability.

Since the principle of market evaluation applies in the national accounts, the greater part of holding gains will be registered as not realised. In practice however, this principle means that balance sheets are evaluated at the market value, with the shortest interval being quarterly. Holding gains that are realised can then occur as a change in value, calculated from the last shift in the quarter to the time the sale is made. However, we usually do not think of realised holding gains in this way. Instead, changes in value between purchases and sales usually refer to longer periods.

Accordingly, it is not possible to calculate realised holding gains as income in the national accounts without breaking the symmetry between income and expenditure in the system. Realised holding gains made by the seller are of course not a corresponding loss for the buyer when the transaction is made.

Perhaps it seems a bit illogical that holding gains taxes are registered as expenditure in the NA, even though the income that the tax refers to is not registered as disposable income in the NA. This is a problem in analyses of, above all, household income, expenditure and savings behaviour.

Considerable revaluations caused by stock market trends

Revaluations have had a strong influence on wealth trends for several years now. Let us look at the two years of 1999 and 2000. In 1999, the Stockholm stock exchange rose by 66 per cent, while in 2000 the index fell by 12 per cent. Because shares are a financial instruments (financial asset and liability), the stock market trends resulted in considerable shifts in wealth during these years.

Table 6.1
Financial net wealth in 1999. SEK billions

	Corporations	Government	Households	Rest of the world
Opening balance assets, **F, ob**	-2 357	-393	1 996	754
Plus transactions, **F**	4	47	45	-97
Plus revaluations, **F, r**	**-762**	**151**	**478**	**134**
= closing balance, **F, cb**	-3 115	-195	2 519	791

The financial net wealth (net liability) of the corporate sector worsened significantly in 1999 since the market value of the share capital (counted as liability) rose. For the other sectors, we note a corresponding strengthening of financial wealth, especially for households where holding gains correspond to about 45 per cent of disposable incomes in the same year. We can also see that net liabilities to rest of the world worsened. Sweden has a negative net position in quoted shares compared to the rest of the world, and the Stockholm exchange rose more dramatically than other foreign stock markets. In 1999, appreciation of the net liability to foreign countries (SEK 134 billion) was clearly higher than the improvement that occurred with the surplus in the balance of current accounts (SEK 97 billion).

[8] However, holding gains can be realised without selling an asset, for example, when an asset that has risen in value is used as security for a loan.

In 2000, the lengthy decline of the stock market began. Results are illustrated below.

Table 6.2
Financial net wealth in 2000. SEK billions

	Corporations	Government	Households	Rest of the world
Opening balance assets, **F, ob**	-3115	-195	2519	791
Plus transactions, **F**	-33	71	15	-54
Plus revaluations, **F, r**	**56**	**94**	**-83**	**-66**
= closing balance, **F, cb**	-3092	-30	2451	671

Here we see a reversed pattern with the exception of the Government sector, which apparently is not affected negatively by a decline in the stock market during the later part of the year.

This example also illustrates the volatile situation of revaluations/holding gains. During certain years, the effects are significant while they can also be hardly noticeable other years. Studies show that the likelihood of household consumption is to a somewhat marginal degree affected by the effects of unrealised holding gains on financial assets. It is another matter concerning the realised holding gains, but as shown above, these cannot easily be implemented in the national accounting system.

For over a decade, there has been a latent interest in Sweden and the EU to report holding gains within the frame of the normal national and financial accounts. Due to various reasons - a lack of data as well as theoretical uncertainty - the plans have not materialised. Few countries make regular calculations.

Statistics Sweden compiled and published the national wealth calculations broken down by institutional sectors for several years during the 1990s[9]. In these tables, holding gains are reported separately, broken down by different types of capital and sectors. The calculations were discontinued due to lack of funds.

[9] Stocks of fixed assets and national wealth 1980 – 1995. Appendix 3 to the Statistical Report SM N 10 9501.

3 Net lending 1970/80 – 2002

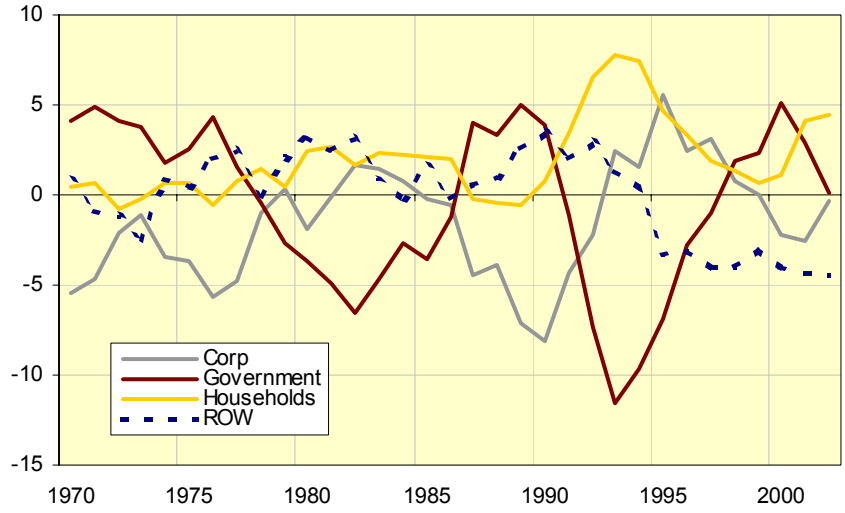
The objective of the project Net lending (see section 1.2) is to propose measures that reduce discrepancies between the two measurement methods, i.e. according to NA and FA respectively. Consistent accounting allows better conditions for analysing net lending. In the next chapter we will find that the discrepancies are considerable, a fact that obviously limits analysis.

Nonetheless, it is still interesting to show the development of net lending, even before the discrepancies are mapped, investigated and taken care of. At the same time, we can point out some areas for analysis. However, these "analyses" are not at all thorough and complete, which means that the conclusions that in some cases are drawn to separate cases must be regarded as preliminary.

The following Figure 1 shows the development of net lending for the main sectors from 1970 onwards. "Rest of the world" represents the amount of the balance of current accounts plus capital transfers to the rest of the world (with reversed characters). A surplus in the balance of current accounts (which has been the case since the beginning of the 1990s) is accordingly reflected as a deficit for the rest of the world sector.

Figure 1
Net lending 1970–2002

Per cent of GDP



Large fluctuations - growing capital market

The Figure illustrates the relatively large fluctuations in net lending. By and large, these fluctuations follow the business cycle, but are strengthened by the balance problem of the deficit in central government and the balance of current accounts, as well as household savings. The accompanying dramatic improvements have resulted in large financial surpluses at times. All in all, we see large fluctuations in net lending for the main sectors.

Since net lending is another expression for financial investment capacity and for borrowing requirements for the various sectors in society, a result of these fluctuations is that capital markets are steadily growing. There have always been some sectors with considerable borrowing requirements, just as there have been sectors with a financial surplus acting as lenders. At the same time, there has been a dramatic development of a great variety of financial instruments, securities in particular. Examples are the sophisticated instruments used by the Swedish National Debt Office for national loans[10].

[10] Benchmark loans, real interest loans, interest and currency swaps, etc.

The capital market has thus grown much quicker than the real economy (Figure 2). This also means that return on capital and holding gains have received a relatively increasing importance for the income and expenditure of the various sectors.[11]

Despite the large fluctuations, we can clearly observe some converging points in Figure 1. In 1978, 1986 and 1998, net lending was nearly zero for all sectors, and there were no particular needs for borrowing, nor was there any investment capacity in the main sectors. (1998 deviates from the other years since there was a significant surplus in the balance of current accounts). It is difficult to find any common denominator other than our years of recession with low investments and low consumption. On the other hand, the recession at the beginning of the 1990s coincided with an extremely unbalanced economy (financially)

Figure 2
Financial assets. Outstanding values

Per cent of GDP

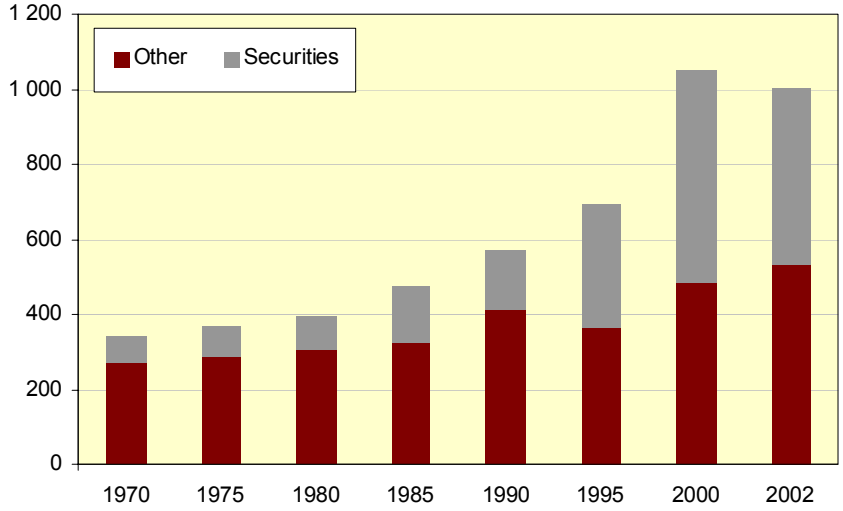


Figure 2 shows the total value of all financial instruments in the Swedish economy (including Swedish assets abroad, and the rest of the world assets in Sweden). Financial instruments include assets in banks, loans, insurance technical reserves, trade credits etc, as well as securities. The last-mentioned category includes bonds, certificates, financial derivatives, shares including mutual funds shares.

At the end of 2002, the value of all financial assets in the Swedish economy was roughly: SEK 23 500 billion, i.e. 10 times the GDP

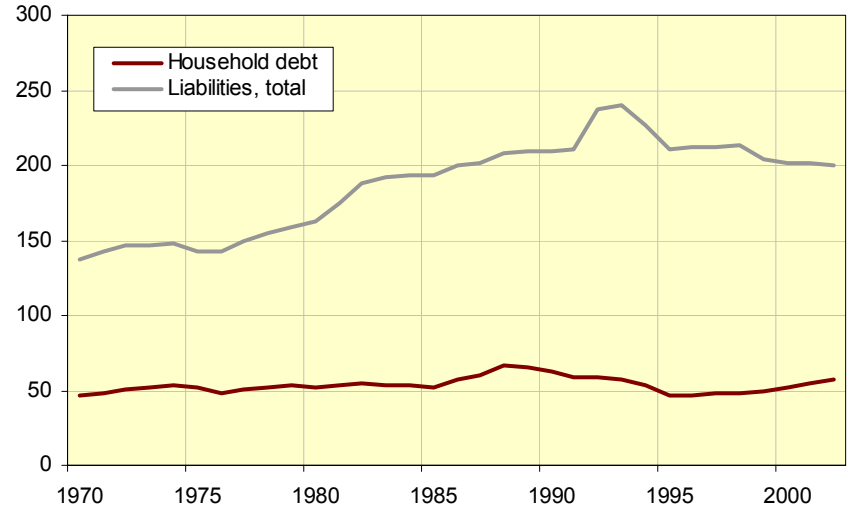
This dramatic increase is mainly due to securities, primarily shares and mutual funds. The development reflects the expansion of the financial economy during recent decades. Even if the figures are blown up by internal assets and liabilities within the sectors (the meaning and implications of the figures are not consolidated), most of the instruments generate return in the form of interest and dividends, resulting in income and expenditure for the players on the capital market.

A more analytical measurement than the total sum of financial objects is the total liability burden of the non-financial sectors (households, non-financial corporations, government sector) after consolidation. In recent years this has become popular, especially when analysing liability development in the US.

[11] In general, the nominal interest flows naturally decrease when inflation is low.

Figure 3
Outstanding liabilities - non-financial sectors

Per cent of GDP



The above figure gives the impression of stable development for the Swedish debt ratio. Following a peak in connection with the financial crisis in the beginning of the 1990s, the total debt ratio has stayed around 200 per cent of GDP. However, the scale in the diagram does not always allow us to see the short-term changes. During some years, large sums can be involved, as reflected in the more dramatic situations as is partly illustrated in the following section.

It is interesting to study the corresponding development in the US. The series here starts in 1910 and shows a rather dramatic development. In 1929, the corresponding debt ratio was 250 per cent of GDP, and then fell to just over 100 per cent just after the war. During the 1970s and 1980s, the ratio was slightly less than 140 per cent, or clearly below the Swedish debt ratio. Since then, the US debt ratio has climbed and now amounts to about 300 per cent of GDP. This high debt ratio in the US is seen to be a hindrance for long-term growth, since sooner or later, income must be used to pay off the large debt burden.

Focus on Public finances

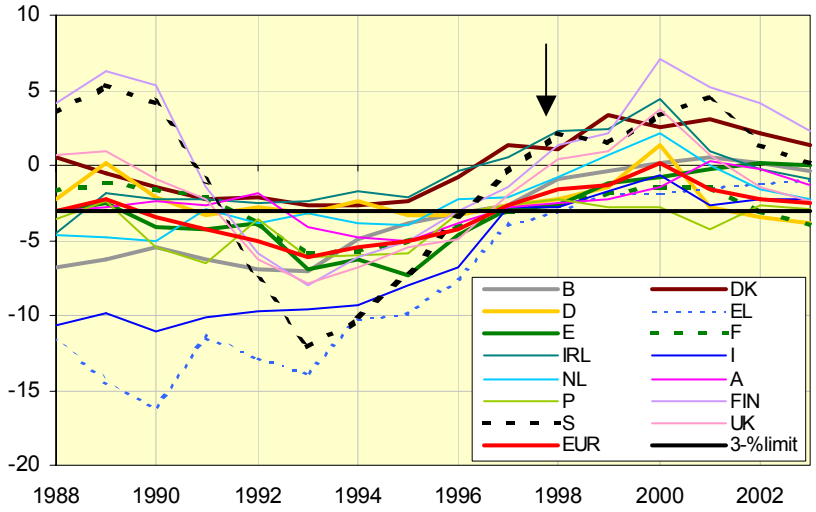
Characteristic of net lending trends (see Figure 1) are the considerable changes in government sector net lending – large surpluses in the 1970s followed by dramatic deficits in the beginning of the 1980s; then a sharp upward turn again before the crisis of the 1990s hit with a record deficit in 1993. Afterwards, there was a noticeable improvement of the national finances in connection with budgetary cuts, prior to the current strained situation in the government sector, which has begun to have effect in a visibly increasing deficit. However, it is not likely that we will experience the same trends as in the beginning of the last two decades. The aim for a surplus, a ceiling on expenditures, and the EU's convergence criteria ought to effectively prevent a repetition of sharp drops in the economy.

As mentioned earlier, net lending for the government sector in Sweden has been like a roller coaster lacking any similarity to most of the other EU countries. This is, among other things, due to two things: the government sector in Sweden is larger than in other countries, and the ambitions for stabilisation policy regarding employment have probably been and are higher in Sweden. These "automatic stabilisers" contribute with reduced tax levies and increased public transfers when the economy is down. The opposite occurs when economic activities increase. But there is also a negative side. At the same time as the economic fluctuations are evened out, the effects in the public finances are the exact opposite. Reduced tax income and increased expenditures such as for unemployment support result in a worsening of net lending. In addition, development during the 1980s and 1990s also contributed to the structural factors (above all the cost crisis in the economy), intensifying the fluctuations in net lending.

In 1993 the deficit in public finances at a record high level, or 12 per cent of GDP. The most important reason was the upswing in unemployment, but the financial crisis where costs for support to the banks also put a significant strain on government finances. In connection with the handling of the crisis together with the consolidation programme in 1993 - 1998, strengthened by EU membership and then EDP-[12] process, the focus was mainly on net lending and the consolidated public gross debt became even clearer. Later on, the government has complemented the convergence criteria for EMU with the aim that the surplus in public finances shall be at least 2 per cent above a business cycle. This, combined with an expenditure ceiling for the government, should contribute to less fluctuation in net lending. At the same time, the effects of the automatic stabilisers are offset, i.e. demand from households and business will not be as sharp as previously.

Figure 4
Net lending, Government sector. EU countries 1988–2003

Per cent of GDP



Source: Eurostat

Development of the government sector's net lending thus varies more than in most of the other EU countries. In Figure 4 above, we clearly see convergence up until reconciliation in 1997 at the start of the EMU. It can be difficult to follow each separate country in the figure, but above all, we can see the efficiency in the convergence process, which is an important prerequisite for the common currency of the euro. After reconciliation in 1997, there was a continued improvement of the public finances in the member countries. Afterwards, most of the countries have succeeded in holding the three per cent limit, but there is a long way to go until a balanced situation (net lending around zero) is reached in the euro area. This negative trend is further emphasised by problems in recent years to maintain budgetary discipline and abide by the rules in the stability pact.

It will be interesting to follow future developments. Will the development pattern for Sweden's part finally be broken, i.e. will we be able to keep public finances within the allowed deficit before there is an upward trend?

The National Financial Management Authority's budget forecast (December 2003) paints a somewhat bleak picture of the public finances for the next few coming years. Incomes have been overestimated and expenditures underestimated in earlier forecasts.

The budget balance cannot however directly be translated to the concept " Government net lending". The budget balance shows the approximate borrowing requirements, regardless if these refer to regular income - expenditures, purchases - sales of assets or holding gains, net, or increased lending. The differences between the budget balance and net lending can thus

[12]Excessive Deficit Procedure, i.e. rules and procedures for reporting and assessment of data for EMU

go both ways. A big difference with regards to the amount is that in the budget balance, sales of assets are reported as income. This could mean that net lending can show an even worse result[13]. Also for local governments, deficits seem to be higher than expected in 2004.

In order to meet the convergence criteria for the EMU with a somewhat good margin, which includes the whole government sector, a surplus is needed in the pension system. Currently, the pension system amounts to about two per cent of GDP, or one per cent each for the income pension system and the PPM (Premium Pension Authority). The issue on the statistical treatment of pension systems based on premiums of the PPM type has been discussed within the EU for over a year now. A principle decision has now been made[14] implying that funded defined contributions pension schemes cannot be part of government if separated in the statistics. The effect of this new decision on classification of PPM is being discussed. The current classification of PPM (belong to the government sector) is based on a Eurostat decision from 1997. If this would be changed and the PPM is moved to the insurance sector, net lending in the government sector will decrease by about one per cent of GDP. This will in this case be effective even retroactively, meaning that the statistical picture of government finances will be reported as somewhat less favourable in recent years.

Zero-sum game

As shown in the review previously, net lending is in one way a zero-sum game. Surpluses and deficits in the various sectors must balance each other. Net lending, summed up for all the sectors including the rest of the world sector, is always equal to zero. The significant changes in net lending of the government sector has thus resulted in an opposite development in the private sector during years when the balance of current accounts has not shown excessive surpluses or deficits.

Therefore it is not certain that a net lending balance in a sector primarily needs to be the result of the economic characteristics of the sector in question. The driving factor behind this situation can simply come from another sector.

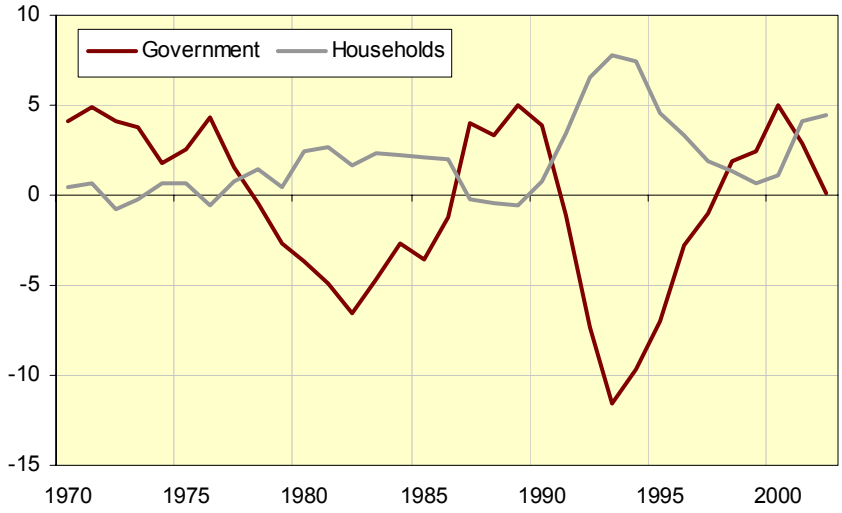
Questions that arise are: Is the deficit in the government sector due to economic policy (mainly fiscal policy), or is it the result of the actions of the private sector? How does the public deficit affect the balance of current accounts? Do corporations and households react similarly or differently?

Although Figure 1 only shows the main sectors' net lending, the picture is confusing, and it is difficult to analyse the development simultaneously for all sectors. In the future, comparisons will thus be made in pairs, with the point of departure from more or less established theories and expected connections. Net lending with the rest of the world, the amount of the balance of current accounts, will be reported here with the "right" signs, in contrast to Figure 1 where the rest of the world sector is seen from abroad.

[13] When calculating net lending, sales of shares are reported as a financial transaction, i.e. there is no positive effect on savings when Government property is sold. Furthermore, the extra dividends are often reported as financial transactions, which means that there will not be any positive effect for the receiver, the Government.
[14] Eurostat News Release 20/2004, 2 March 2004.

Figure 5
Net lending, households – government. Ricardian equivalence?

Per cent of GDP



The hypothesis of "Ricardian equivalence" means that consumers take consideration to the present value of all future taxes and transfers when they make rational decisions on private consumption, labour supply and savings (Barro 1974)[15]. Households thus adapt their savings according to the conditions of Government finances. If the Government sector shows a deficit, households save to guard against future tax rises or cut-backs. The Figure clearly illustrates a counteractive development in both of the main sectors, but as shown earlier, the zero-sum restriction means that the private sector must save when the Government sector borrows and vice versa. The mechanisms that steer savings patterns can of course be the opposite, i.e. household incomes and consumption behaviour "are stabilised" by fiscal and monetary policy measures.

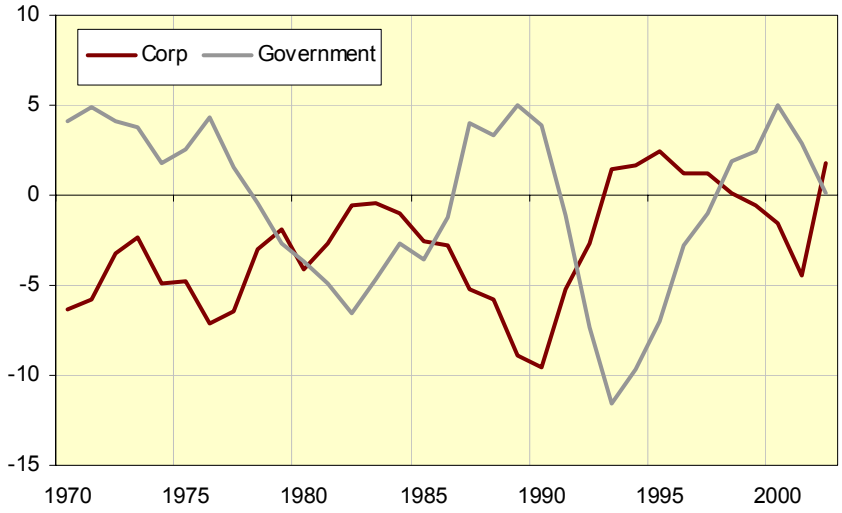
Other more established savings theories such as the life cycle hypothesis and the theory on buffer savings are not seen as relevant when comparing government saving and household saving, and will not be further commented on.

Does the Government deficit limit the extent for loans for industry?
When the Government borrows extensively, as in the beginning of the 1980s and the 1990s, the question arises if this can limit the borrowing extent for other borrowers, either by the effect of quantitative regulations (as in the 1980s) or by raising the general interest level (the term "crowding out" is sometimes used). If so, this could inhibit industry to make investments. When high interest rates prevail and there is a limited availability of credit, it is more profitable for corporations to "make money from money" instead of on real investments. This would result in a financial surplus in the corporate and household sectors. Figure 6 supports this somewhat, but when testing the hypothesis, net lending needs to be broken down into type of income and expenditure, as well as type of financial assets and liability instruments. It is also questionable if the hypothesis has any real bearing in an internationally deregulated capital market.

[15] For a more detailed description and analysis, see SNS Konjunkturråd. Rapport 2004. Report 2004 Finances for welfare in the future.

Figure 6
Net lending, non-financial corporations – government. Crowding out?

Per cent of GDP



Up until 1995, there seems to be a certain connection between the non-financial corporations' net lending and the balance of current accounts. See Figure 7. It is difficult to find an immediate explanation for this. The large deficits since the mid 1990s do not seem to have affected development of net lending of non-financial corporations.

Figure 7
Net lending, non-financial corporations and the balance on current account

Per cent of GDP

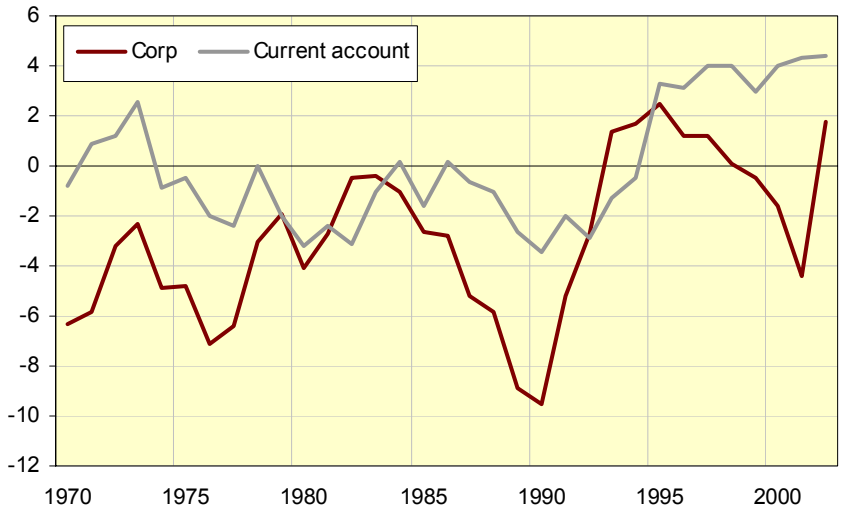
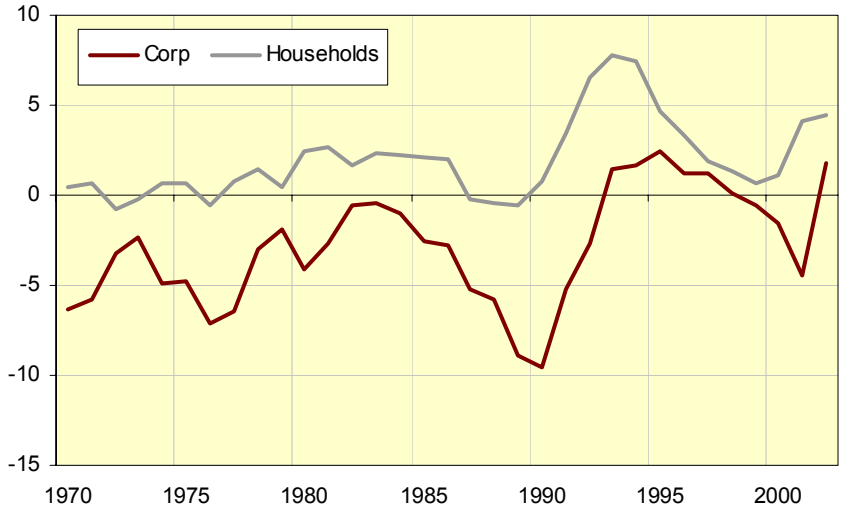


Figure 8
Net lending, non-financial corporations - households

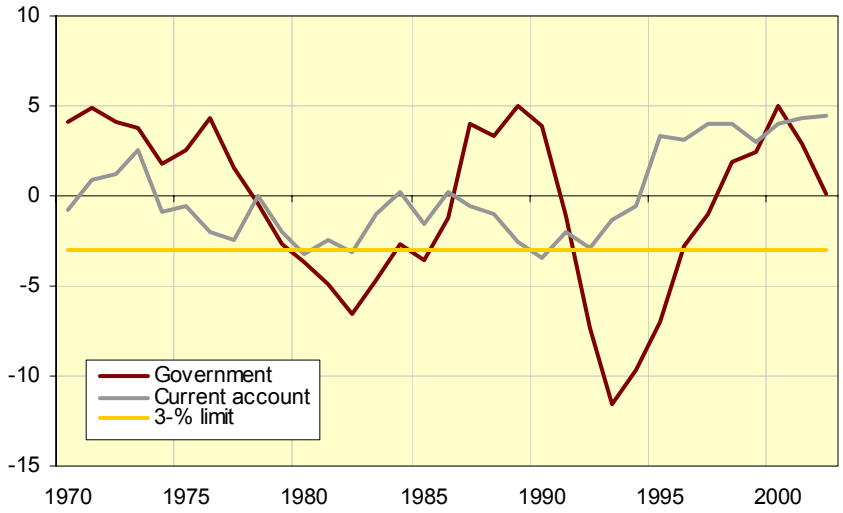
Per cent of GDP



Households and corporations – similar or different savings behaviour?
Corporations and households in the UK differ with regard to net lending[16]. In contrast to a strong development of households' disposable incomes, profitability in industry has been pressed by the strong British pound and a weak international demand for British products. Figure 8 does not illustrate this kind of pattern in the Swedish economy, but rather, development has been rather in consensus in the private sector. This could be interpreted that there is a relatively stronger connection in Sweden between industrial development and disposable incomes of households.

Figure 9
Net lending, government and the balance on current accounts

Per cent of GDP



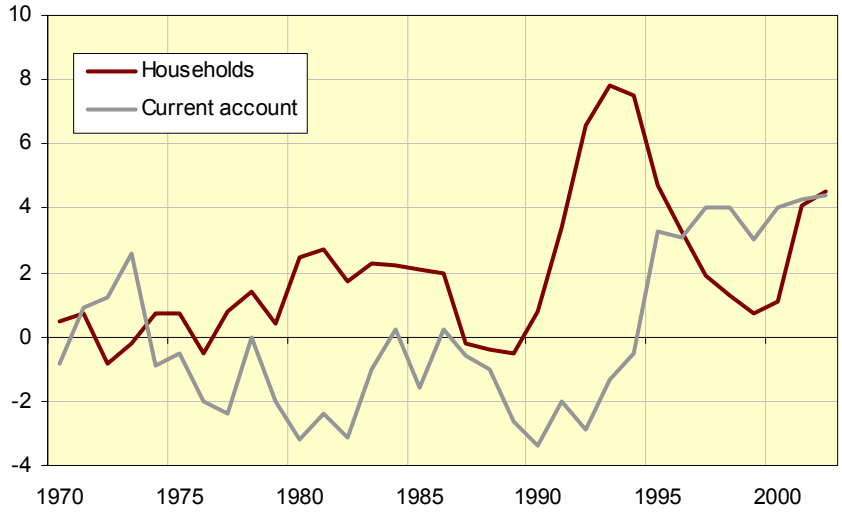
Is there a connection between the balance on current accounts and the budget balance?
Figure 7 shows that net lending of corporations does not particularly follow the development of the balance of current accounts. What is the situation then with the balance on current accounts and the net lending of the government sector?

[16] For example, please refer to Richard Walton's (Bank of England) contribution at Statistics Sweden's conference on economic statistics. Saltsjöbaden October 2003..

It may be interesting to compare with the current situation in the US, which has large financial deficits. The concept "twin deficits" occurs. This means that there are deficits both in the budget and the balance on current accounts. The zero-sum restriction for net lending then means that the private sector can be a net borrower - everyone borrows, which should lead to rising interest rates. In the present situation in the US, with low inflation, the US dollar is under pressure and has been falling. A similar pattern can be seen in Sweden during the 1980s, and even during the most difficult crisis years at the beginning of the 1990s.

Figure 10
Net lending of households and the balance on current accounts

Per cent of GDP



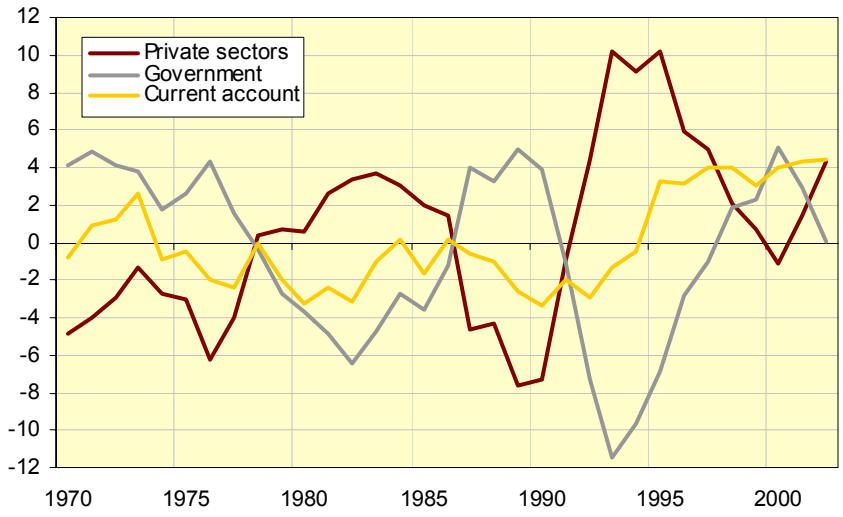
The significant household savings since the beginning of the 1990s coincide with the sharp improvements in foreign trade, but it is difficult to see any reason for this.

Comparisons in pairs - some observations

It seems that savings of the domestic sector do not particularly affect the balance on current accounts. The total domestic net lending determine - and by definition is - the balance on current accounts. Comparisons often show that variations in savings in one of the domestic main sectors mainly result in backlashes in some of the other domestic sectors. In Sweden, this applies above all to the reversed connection between private and public savings.

Figure 11
Net lending, private - public - balance on current accounts

Per cent of GDP



The optimal savings structure?

What characterises a "good" savings structure? In the black in the Government sector and the household sector? A surplus in the balance of current accounts? Since the total of net lending is always zero, the corporate sector must show a deficit. A financial savings deficit in the corporate sector can occur in two ways: by poor results in operations or by high real investments. It is fairly evident that it is better if the financial savings deficit is the result of an increase in real savings, i.e. an increase in investments in tangible assets, but not a result of falling profits (operational surplus).

By relating the flow figures (net lending) to the balance sheet we arrive at another aspect of what an optimal savings structure is. First, the desired supply of assets and liabilities for each sector is stated, and then the net lending that is needed, either to reach the balance sheet objective or to maintain the real value of the balance sheet. This means that net lending should not be zero, but either plus in those cases where net assets is the target value, and minus when net liabilities is the target variable. (for example in industry). The savings target should be related to the economic development in current prices.

Table 7
Net lending with some restrictions

	Corporations	Government sector	Households	Rest of the world
Financial net wealth December 2001	-2 980	71	2 450	478
Net lending	63	8	70	-141
Of which to maintain the real value at 3% GDP growth (cp)	-89	2	73	14
Other net lending	152	6	-3	-155

It should be noted that the effects of revaluations due to price changes in financial assets and liabilities are not included in the above example.

Consequences of the Swedish balance target at 2% surplus in Government finances
The Government has set a target that the government sector should have a financial surplus of an average of 2% in a business cycle. This means that the non-public sectors and the rest of the world (reversed) automatically shows a deficit of 2% of GDP. In this sense, it should also be desirable that households show a financial surplus to maintain the real value of households' financial wealth (Not taking into consideration any effects of holding gains and other revaluations). We will probably arrive at a figure of about 3 per cent for financial surplus, or a savings ratio about double this.

By "locking" savings for the government sector and households, the other two sectors - corporations and the rest of the world must together report a financial deficit of 5 per cent of GDP over a business cycle (about 5 years). In recent years, the surplus in the balance of current accounts has been just under 4% of GDP. From a historic perspective, this is a high figure; perhaps this is a reasonable figure in the long-term, but when looking back in time, we see that the balance of current accounts has been around zero between 1970 and 1995. If it is assumed that the deficit in the balance of current accounts is around plus two per cent during a business cycle, then the entire corporate sector must have a financial deficit of 3 per cent during the corresponding period. A financial deficit can occur in two ways: either by a decrease in disposable income (mainly from lower profits) or by an increase in real capital. The first alternative is of course not desirable, but a deficit due to increased investments is acceptable and even necessary.

Thus: a surplus target in the government sector means that capital formation in the form of increased investments in industry and/or a surplus in the balance on current accounts needs to be correspondingly higher.

The above-summarised analysis on comparisons of net lending for different institutional main sectors is based on officially reported values in the national accounts, i.e. net lending calculated as income minus expenditures. In order to draw conclusions and conduct discussions, we must be certain that the figures are more or less reliable. In section 4, we see that this is not necessarily so, since large discrepancies occur in the calculations.

4 Discrepancies National accounts – Financial accounts

Net lending can thus be calculated in two ways:

1. Real according to the national accounts, NA, as the difference between income and expenditures
2. Financial according to the financial accounts, FA, as the difference between transactions in financial assets and liabilities

Calculations are made annually for the institutional sectors in the economy in NA and FA. The financial accounts also make quarterly calculations of net lending for all sectors, and produce a "Savings barometer" for the household sector about 5 to 6 weeks after every change in the quarter. FA's quarterly calculations are closely integrated with the annual calculations. By summing up the quarters of the year, we obtain a very good approximation of the annual value for the institutional sectors. Within the frame for NA, non-financial sectoral accounts have still not been done yet. The Government sector is an exception (EU requirement).

When calculating net lending from two areas, figures rarely correspond with each other. This was especially true at the end of the 1980s when there were very large discrepancies. There are different strategies on how to handle this problem of discrepancy. One solution is to go through the calculations in detail for each sector/sub-sector and look for errors and deficiencies in the statistics and calculation models. Another is to work from the sectoral accounts and try to hold the figures for each sector together. One problem, regardless of strategy, is that the non-financial corporate sector is residually calculated in the Swedish NA and FA (see the above tables). As a result, in the NA we are locked to the income totals that are generated by GDP calculations.

Figure 12
Difference in net lending NA, FA, 1980–2002

SEK billions

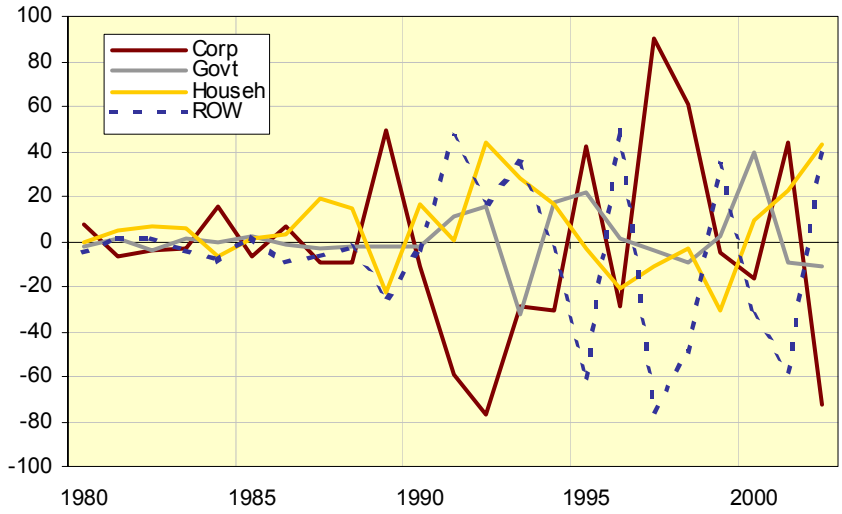


Figure 12 shows the current picture for the main sectors in the economy. Prior to 1986 there was an acceptable agreement. Afterwards, household savings began to show large differences, which may be connected to deregulation on the credit market. In 1989 the really big problems begin to appear. One of the largest contributing factors to this was the currency deregulation in the summer of 1989. The sharp increase of capital flow abroad, and the drastically worsened possibilities for the Riksbank (balance of payments statistics) and Statistics Sweden (financial accounts statistics) to reflect these, caused large residual entries

in the balance on current accounts, and thus also in the rest of the world sector in the national accounting system.[17]

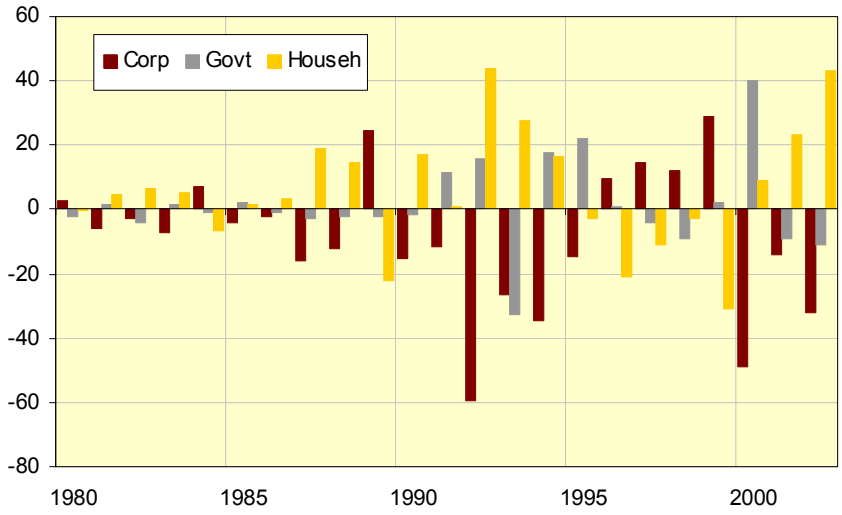
NA and FA are both closed accounting systems. Among other things, this means that a discrepancy in one place (for a sector) will automatically pop up as a discrepancy with a reversed sign in some other or other sectors in the system.

In principle, we can say that from 1986, the non-financial corporation sector is residual in both the NA and the FA. This is not the case for all items in the sectoral accounts, but as for net lending, corporate savings are determined more or less by the direct calculations of net lending for all other sectors. This sometimes very large residual entry in the balance of payments does not immediately have a significant effect of net lending of corporations in the FA. Even if one generally should be careful in categorically choosing the one or the other value before making a proper evaluation, it seems that net lending in the NA (approximately the official amount for balance on current accounts) is the most reasonable figure after 1989. If the alternative value in the balance on current accounts was chosen, either the series on trade in goods and services and/or the transfers (including property income) would need to be highly questioned.

Thus, there are good reasons to a priori look over the discrepancy in the rest of the world sector when further analysing the situation. Consequently, we have chosen the value of the national accounts (balance on current accounts) as the better choice, and for the time being, we replace the value of the financial accounts with this value for the whole time period. The result, with the difference of the rest of the world sector eliminated and corporate savings corrected, is illustrated below.

Figure 13
Discrepancies in net lending NA, FA. Residual entry, rest of the world eliminated

SEK billions



The picture of a clear deterioration after 1986 remains. It should of course be mentioned that in order for the comparison to be accurate over time, some type of fixed price calculation should be made, for example, by relating saving to GDP for each respective year. At this stage, this does not seem to be necessary, since the primary aim is to give a description of the general background.

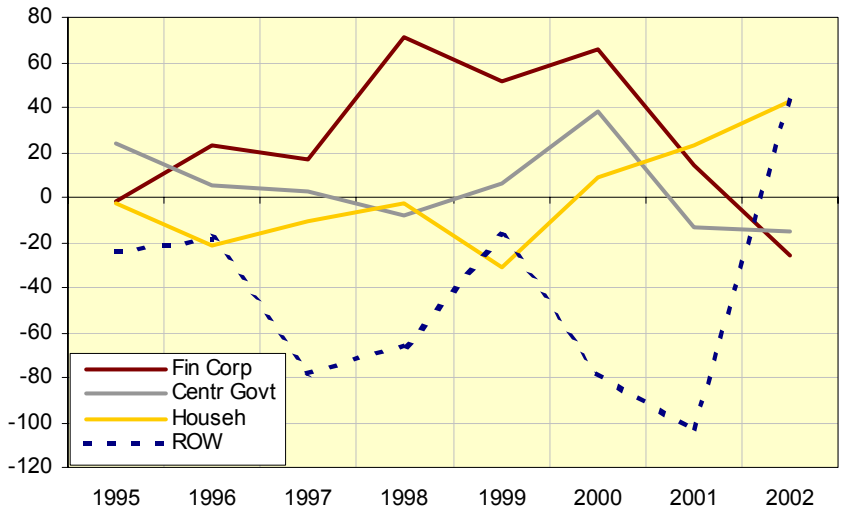
If we study recent years from 1995 onwards, we can see large discrepancies for some sectors/sub-sectors. Somewhat unexpectedly, the problems are considerable regarding

[17] It should be noted that there are two residual entries in the rest of the world sector: one in the balance of payments and one that arises when certain capital transactions are replaced with values from the financial accounts. Figure 12 illustrates the last-mentioned of these.

financial corporations and the Government. These sectors have a solid foundation of statistics, there are no problems with the differences in coverage, and residual calculations are almost non-existent.

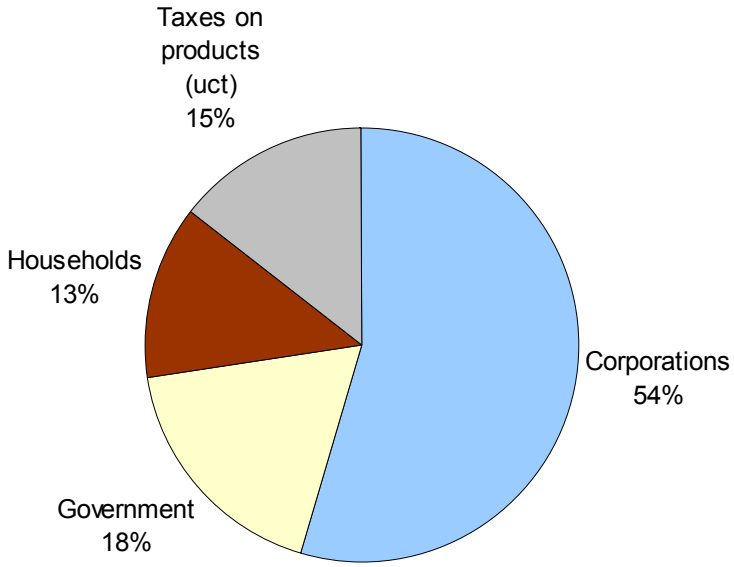
Figure 14
Discrepancies for some selected sectors, 1995–2002

SEK billions



In the following sections, some comparisons between the NA and the FA are made concerning net lending from the perspective of material that has been studied. The analysis is preliminary and has been made prior to examination of the questions in the project. Emphasis is on the non-financial corporate sector. This is partly because the discrepancies for this sector are considerable and have not yet been examined, and partly because of the great significance of corporations for the nation's economy (for an example, see Figure 15). Other sectors (financial corporations, the government sector, households and the rest of the world sector) have been covered more briefly in this status report.

Figure 15
Breakdown of value added. Year 2000



4.1 Non-financial corporations

Previously, the old structural business statistics on non-financial corporations investigated in principle all corporations with 50 or more employees, while smaller corporations were investigated via adjustable samples by industry. Reporting was only done via a paper form. Further, the previous statistics included specifications corresponding to what we today find in BAST[18]. One considerable deficiency in previous statistics was that corporations in real estate management were not included, since the sample was based on the number of employees. Later on, paper forms for the smaller corporations were replaced with information obtained directly from annual reports via the Swedish Patent and Registration Office. In connection with the further development of the new structural business statistics, information was later collected from the National Tax Board[19]. At the same time, there was a transition to a total population survey. Today, the Structural Business Statistics (SBS) includes about 360 000 corporations, of which slighter over 5 000 are surveyed via a form. Information from the remaining corporations is collected via the National Tax Board.

The new business statistics have been produced for 1997 - 2001. There is also a version for 1996, which is a mix of old and new - new population and old form.

Some years ago, extensive work was carried out to translate the new statistics to NA/FA concepts. This resulted in the annual NA-FA tables, broken down by corporations receiving forms, corporations from the National Tax Board's records, new corporations, missing corporations, etc. These tables provided a good foundation for sectoral accounts for non-financial corporations, i.e. where it is possible to follow the paths from operational surplus, labour costs, value added, capital income, transfers to savings, investments and financial transactions.

The idea was that the SBS (both the old and the new) would lay the foundation for economic statistics. Above all, this was due to two reasons:

a) First of all, the good coverage. SBS cover all non-financial corporations. The National Tax Board investigates those that do not submit a form. Deficiencies in coverage are because tenant-owned flat organisations (included under real estate management corporations) are not included, and because of the general problems in handling movements in the corporate population (new corporations, closures, etc.) Another coverage problem is that of accounting periods, where some corporations a split financial year, and the rearrangement of the accounting year is included as if it were reported as a calendar year.

b) Secondly, due to consistency of the material. Net lending can be calculated from the real and the financial side almost without discrepancy. Among other things, this means that information cannot easily be changed. For example, in order to revise investments, a corresponding correction of the same amount must be made at another place (in the real or financial calculation of net lending). Otherwise the connection between the non-financial and the financial side will be broken. The same holds true when making additions regarding coverage, accounting periods and evaluation.

Still, the FA have not been able to be used as originally intended. It has been difficult to fit the SBS totals into the NA/FA. As explained in section 2, this is because the NA/FA are closed accounting systems where incomes/expenditures and assets/liabilities must be balanced. The fact that the statistics have been relatively late and the specifications of assets and liabilities are too rough are further reasons that the SBS have not been used to full extent.

However, regarding NA's production calculations, the SBS are an important source, above all for calculation of value added in the service industries. By coordinating the annual statistics on industrial production of goods, SBS is an important primary statistical source for

[18] Balance sheets statistics for non-financial corporations. Quarterly survey.
[19] Special accounting statements. Annual information from the National Tax Board.

industrial corporations. Further, SBS are used for certain single transfer items in the NA and for measuring transactions/balances within the sector, unquoted shares and equity in the FA.

The corporate sector's operational surplus, property income and net lending has thus mainly continued to be calculated residually, according to the temporary solution in connection with the restructuring of the SBS in 1997. Among other things, this means that errors and incomplete information in the other sectors (government sector, households, financial corporations and ROW) have a significant effect on the corporate sector. Primary data from SBS and even BAST is often "overridden" by residuals.

Table 8 – 20 illustrate preliminary results and analysis of the comparisons made in the SBS material for 1997-2001.

Basic conditions

- Comparisons of SBS - NA/FA are limited to 1997-2001. The year 1996 is not included, since it is a hybrid (old form, new population). SBS has been inserted as an alternative corporate sector to compare with NA's and FA's official accounting (mainly residually calculated).
- SBS have been supplemented with re-invested earnings, i.e. undistributed profits in direct-investment corporations in other countries, net, that are calculated by the Riksbank (direct-investment corporations approximately correspond to subsidiaries plus associated companies abroad).

Observations, analysis

In the future, information concerning non-financial corporations will be compared according to accounting in the NA/FA and the annual SBS, respectively. The breakdown of the corporate sector into financial and non-financial corporations in the NA is only available up to and including 2001. Estimations of financial corporations 2002 have been made for certain variables but not for value added.

Table 8
Value added. SEK billions

	NA	SBS	Difference
2001	1231	1193	38
2000	1194	1195	-1
1999	1126	1131	-5
1998	1060	1059	1
1997	1009	1011	-2

Value added at production cost corresponds very well between the NA and SBS up until 2000. This is largely because the SBS and the annual survey of industrial production are coordinated, and that production for service corporations is calculated from the SBS. It is not certain how the effects of tenant-owned flat organisations not included in the SBS shall be regarded. If these organisations only purchase real estate, production values and operational surplus are not affected to any large degree. The purchase of real estate is then a transaction within the corporate sector, and does affect net lending but not production and investments. Depending on different definitions of investments and intermediate consumption, SBS should show higher value added. See below.

Operating surplus corresponds roughly to operating income in a corporation, i.e. that part of value added that does not include labour costs or other differently expressed compensation to the production factor capital. By definition, operational surplus differs in the NA and the SBS by differences in inventory prices, treatment of software, insurances, financial leasing and short-term inventories. Normally, the net effect of these differences in definition is relatively small.

Table 9
Operational surplus, gross. SEK billions

	NA	SBS	Difference
2002	355		
2001	336	317	19
2000	367	372	-5
1999	368	376	-8
1998	352	350	2
1997	356	353	3

Figures for operational surplus are in relative agreement up until the end of 2000. Afterwards, operational surplus falls more in the FA than in the NA. It is not entirely possible to compare between the years, but the large corporations (those which use forms) show a slight improvement between 1999 and 2000 (+3%) while the "National Tax Board" (NTB) corporations show a reduced surplus. It can also be noted that the dramatic worsening of the operating surplus in the SBS in 2001 can be attributed to a handful of very large corporations. The increase in the NA during 2002 seems somewhat dubious considering the background of profit growth in industry. It should be mentioned that the NA still do not base calculations for 2002 on the FA, i.e. calculations are not based on direct information on value added, but rather on projections based on quick statistics. When the NA receives the data for 2002 from the FA, revisions may be made since the data gives more definite and detailed information.

Return on capital consists of interest and dividends, net. As previously mentioned, holding gains are not included.

Table 10
Property income. SEK billions

	NA	SBS	Difference
2002	-41		
2001	-53	-134	81
2000	-38	-27	-11
1999	-33	-99	66
1998	-52	-94	42
1997	-74	-126	52

Net interest and dividends show very significant differences. During the years 1997-1999, SBS report a SEK 160 billion less figure than the NA. In 2000 the picture is reversed, but in 2001 there is a huge discrepancy again. The value of the NA is residually determined, i.e. it is the net of interest for all other sectors' interests and the rest of the world. If we were to hypothetically accept the value of SBS for the non-financial corporations, it would mean that some other sector must be adjusted. It is reasonable that space is limited for more detailed revisions of property income of households, the financial sector and the government sector. Concerning the rest of the world sector, this is more uncertain. Return on capital in the balance of current accounts is based on calculations of foreign assets and liabilities together with assumptions on implicit interest rates, thus involving a certain risk. However, some say that the SBS values are unreasonable regarding return on capital. This particularly involves information on provided dividends in the SBS, which can be very overestimated in certain years. However, if net return on capital in the balance of current accounts is corrected in line with the SBS, then the balance on current accounts would sharply worsen during the years in question. This would correspondingly reduce the residual entry in the balance of current accounts.

Table 11
Gross savings. SEK billions

	NA	SBS	Difference
2002	231		
2001	195	131	64
2000	237	267	-30
1999	246	230	16
1998	255	197	58
1997	236	177	59

Gross savings are those that are available for non-financial and financial investments. Since final consumption does not exist in the corporate sector, gross savings here are equal to disposable incomes of the corporate sector, i.e. the sum of factor income and transfers, net. Naturally, the significant discrepancies regarding return on capital also affect gross savings.

Table 12
Gross capital formation. SEK billions

	NA	SBS	Difference
2002	274		
2001	317	228	89
2000	289	248	41
1999	250	203	47
1998	249	212	37
1997	211	207	4

Gross capital formation that include changes in inventory, net purchases of real estate as well as investments/net purchases of intangible assets and valuables show considerably lower values in SBS, with the exception of 1997. The difference can partly be explained by the different definitions concerning depreciation periods. Accounting for corporations allows write-offs against equity of capital items of limited value, with an economic life up to three years. In the NA, a one-year limit is applied. In the NA, information from business accountancy is redistributed, from intermediate consumption to investments. This primarily affects all IT investments (for software) and financial leasing.

It also means that there should be a corresponding increase in value added. As illustrated in table 8, this seems not to be the case. The agreement that was considered good is thus illusory. The SBS should show higher value added values. The differences in changes in inventories are considerable but not systematic.

Another explanation for the differences could be the disinvestments that are reported for the "other corporations" (see Figure 18). It is not certain that these should be included and teated as such, and if they are equally treated in the NA and the SBS.

Even though net lending is the project's main survey variable, it is difficult to analyse the differences. This is because net lending is a balance variable and the calculations of the net lending of non-financial corporations in the NA and the FA are residually determined. GDP provides the frame for total incomes. Transfers are a zero-sum game, and for the financial instruments, the identity asset is always equal to liability.

Table 13
Net lending, non-financial calculations. SEK billions

	NA	SBS	Difference
2002	-6		
2001	-99	-97	-2
2000	-35	19	-54
1999	-10	27	-37
1998	1	-15	16
1997	22	-30	52

Table 14
Net lending, financially calculated. SEK billions

		SBS	Difference
2002	41		
2001	-128	-103	-25
2000	46	18	28
1999	47	26	21
1998	11	-23	34
1997	-52	-28	-24

The figures deviate from published values since the "other" item in the household sector has been allocated to corporations. As mentioned previously, it is advantageous for the SBS that net lending is calculated within the same source, which reduces discrepancies between the real and financial calculation. This is the case for these years, with the exception of 1998 and 2001 where discrepancies amount to SEK 8 billion and 6 billion, respectively.

Financial assets and liabilities, transactions
Because the new SBS started up in full scale in 1997, transactions for 1997 are calculated as difference in balance value, problematic (opening balance values are not completely comparable). Therefore 1997 has not been included in the comparison. It should be noted that transaction volumes should normally be higher in the SBS than in the FA. This is because transactions within the sector (between corporations) and above all, transactions within group companies are included in the SBS to a greater degree than in the FA. This is also the case for the balance sheets.

In tables 15-20 we do not see any direct support for this assumption, except in 2001. The significantly greater values in the SBS this year are also due to large flows within the group companies.

Table 15
Financial assets, transactions. SEK billions

		SBS	Difference
2002	188		
2001	336	579	-243
2000	954	863	91
1999	486	397	89
1998	469	452	17

Table 16
Loans. SEK billions

		SBS	Difference
2002	50		
2001	121	175	-54
2000	247	222	25
1999	74	126	-52
1998	195	200	-5

Transactions in the financial instrument loan (including loans within the company group, leasing, etc) are in good agreement in 1998 and 2000, but in 1999 and 2001, agreement was worse.

Table 17
Securities. SEK billions

		SBS	Difference
2002	96		
2001	119	289	-170
2000	451	288	163
1999	255	164	91
1998	141	102	39

Table 18
Liabilities, transactions. SEK billions

		SBS	Difference
2002	147		
2001	464	682	-218
2000	908	845	63
1999	439	371	68
1998	458	475	-17

Table 19
Loans. SEK billions

		SBS	Difference
2002	54		
2001	219	322	-103
2000	280	284	-4
1999	160	127	33
1998	248	171	77

Table 20
Securities. SEK billions

		SBS	Difference
2002	101		
2001	131	276	-145
2000	400	334	66
1999	203	167	36
1998	151	144	7

The FA use the quarterly survey on assets and liabilities of corporations, BAST and the survey on foreign trade credits, HKU.

We mentioned earlier that non-financial corporations are residually calculated in the FA. This a truth with a bit of modification. Quarterly statistics values are inserted even in annual calculations (a total of four quarters). In the final reconciliations per sector and financial instruments, however, the result is usually that residual values "override" the inputs. It could be interesting to compare inputs (from BAST, HKU) with the SBS and the officially reported data in the FA, respectively.

If we compare the item "bonds and certificates" for 2001, we see that BAST reports a net purchase of SEK 2 billion and the SBS a net purchase of SEK 9 billion. The officially reported figure in the financial accounts is SEK 53 billion!

Comparing "form" corporations and "NTB" (National Tax Board) corporations. Matched - mismatched corporations
The SBS differentiate between corporations that are investigated with a form - in general, corporations with more than 50 employees, and corporations that are investigated via the National Tax Board. Another division is to differentiate between what we call "matched" and

"mismatched" corporations. "Matched" corporations are those that have comparable information for a two-year period, i.e. either via a form or via the National Tax Board for both of the two years. These corporations shall not include those that have been corrected for non-response, newly started or away from the population during any of the years. Corporations in the SBS population could be grouped as follows:

1. Form corporations, matched
2. NTB corporations, matched
3. Other corporations, unmatched

Figure 16
Breakdown of value added according to SBS. Average 1998–2000

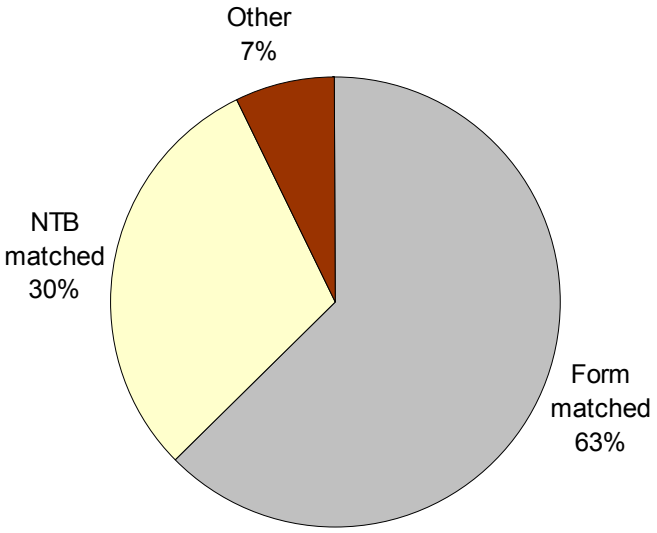
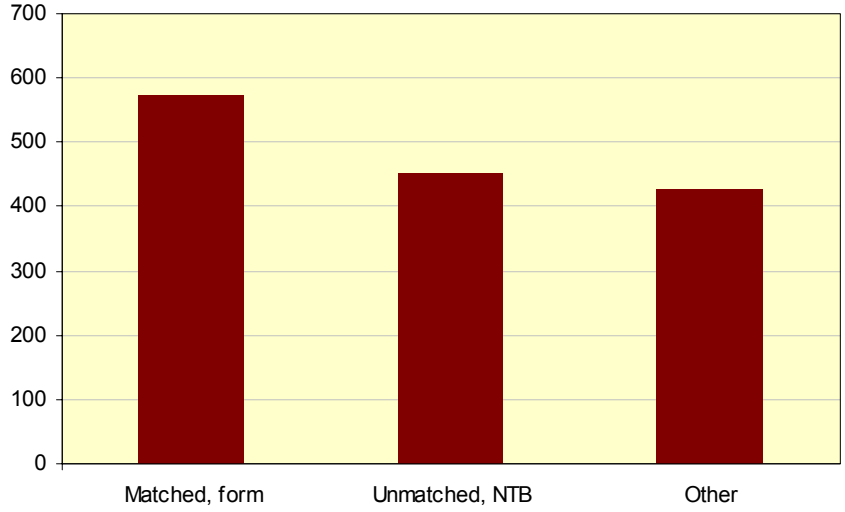


Figure 16 shows that the form corporations (included here are all large corporations) dominate the total value added, as expected. Still, we see that percentage of NTB corporations is not insignificant - 30% corresponds to about SEK 350 billion. Other corporations, i.e. "unmatched" corporations account for 7 per cent, corresponding to SEK 8 billion of value added. This group is particularly problematic in the statistical processing, since there is no comparable data for two consecutive years. Among other things, this means that net lending cannot be calculated from the two areas (non-financial and financial).

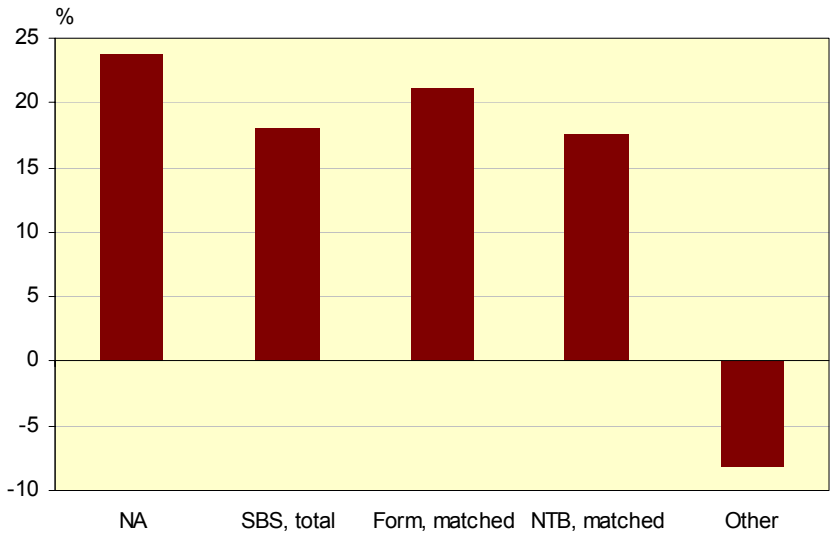
Figure 17 illustrated value added per employee in the different groups. As anticipated, value added is clearly higher for the form corporations than the others, even though corporations without employees are included in the NTB corporations. Apparently, this has marginal significance for the total aggregates.

Figure 17
Value added per employee. Average 1998-2000. SEK thousands



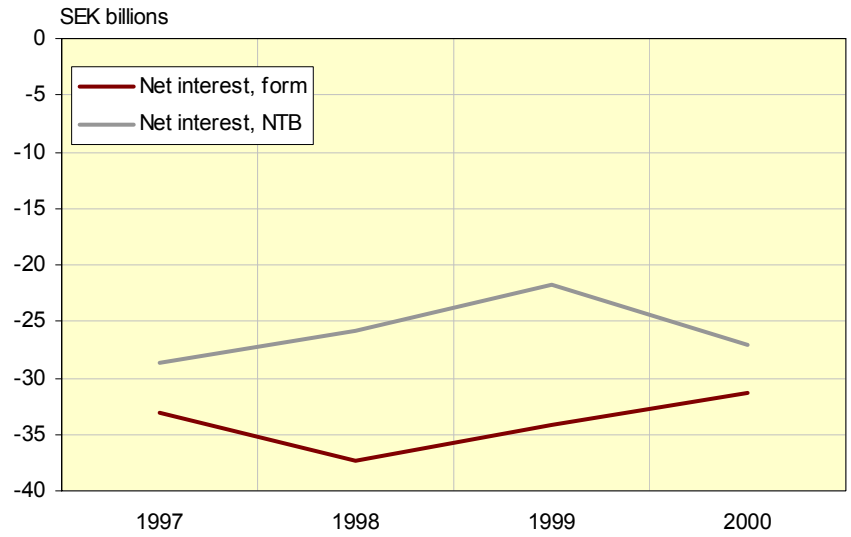
As mentioned, the "other" group is problematic in the statistics processing. It should be noted that this group has sharply increased in recent years, between 1998 and 2001 - from all corporations, slightly less than 160 000 to 225 000 employees. Large amounts are reported for provided dividends in connection with liquidation of corporations. We also see that in total, disinvestments of real capital are reported for the "other" group. See the following Figure 18.

Figure 18
Investments in relation to value added. Average 1998–2000. Per cent



The rather sharp decline in the net interest in 2000 refers to the NTB corporations. See figure 19.

Figure 19
Net interest - Form corporations and NTB corporations



It is difficult to find any economic explanation as to why the development of net interest differs in the two categories. It is probable that the difficulties in distinguishing interest income and expenditures in the NTB corporations account for the differences in development.

Some preliminary conclusions follow:

- Large corporations should be handled separately
- The "other" group should be studied further
- The differences in return on capital must be investigated
- The differences in gross investments cannot be explained, and this should be studied.
- Independent sectoral accounts based on SBS should be presented.

These questions will be further investigated in sub-project 1: Non-financial corporations.

It should be mentioned that NA has worked intensively to integrate the SBS material in the calculations of the non-financial corporate sector. This work also includes parts of what has been proposed above.

The remaining section of chapter 4 reports on the other sectors. However, discrepancies within these have not yet been investigated in this project. The review of these sections concentrates on the descriptions of the situation with comments. In certain cases, reference is made to other studies.

4.2 Financial corporations

The financial corporate sector consists of two main groups. The one group includes monetary financial institutions, MFI (including banks), and other financial institutions. The other group consists of insurance companies and pension funds. In total, financial corporations display large discrepancies (see Table 21). The differences may seem unjustified since calculations are based on comprehensive background material in the form of very specified annual reports and balance sheets.

Table 21
Net lending. Financial corporations. SEK billions

	NA	FA	Difference
2002		26	-26
2001	39	25	14
2000	-13	-79	66
1999	9	-43	52
1998	15	-56	71
1997	36	19	17
1996	25	2	23
1995	53	55	-2

The very large differences in recent years are, among other things, due to the fact that insurance companies and insurance savings are treated differently in the NA and FA, respectively. However, this is now being corrected. New calculations of insurance savings will thus reduce these differences.

These questions will be further investigated in sub-project 4: Insurance

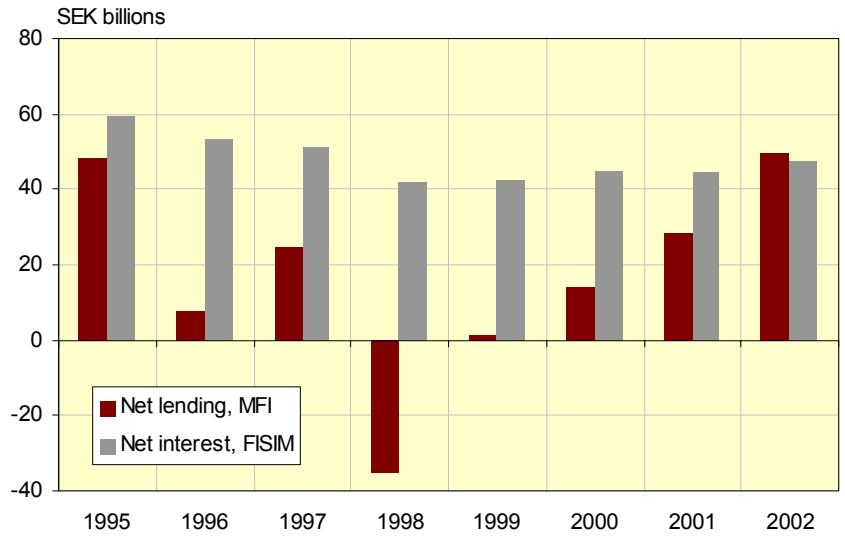
Regarding financial institutions, NA/FA calculations are being planned, which correspond to the calculations for non-financial corporations done by the SBS.

This will be investigated and carried out in sub-project 2: Financial institutions

To reduce discrepancies in the financial sector, it is necessary to solve the problem of which corporations should be classified as financial service corporations. There are about 3 000 corporations in the business register that are not investigated by the SBS, since they have NACE codes 65 - 67 and are not regarded as financial corporations since they do not fulfil the criteria for these corporations. In principle, this means that financial services in the form of net interest, commission, etc. are produced. It is also necessary to investigate some pension funds in employer pension schemes. These are included in the corporate sector, but are not investigated due to problems with data capture.

Without anticipating the results of the work in the sub-project, it seems that the values according to the FA are less reasonable than in the series reported in the NA. Figure 20 below compares the most important income source for the monetary financial institutions, net interest, with net lending according to the FA. During certain years, especially 1998, differences are significant, implicating that there is other income or expenditures that affect net lending.

Figure 20
Net interest (FISIM) and net lending FA. Monetary financial institutions



Interest and dividends for all sectors will be investigated in sub-project 3: Return on capital

4.3 Government sector

As mentioned earlier, the government sector includes the sub-sectors government (government authorities but not public corporations), the social security sector (income pension system and premium pension system, PPM) as well as municipalities and county councils (not municipally owned corporations). The data for calculations of the government come from several sources[20]. Consistent accounting material is available for the social security sector and the municipality sector, but this material is also supplemented with other information. The results of the calculations are illustrated below.

Table 22
Net lending. Government sector. SEK billions

	NA	FA	Difference
2002	2	13	-11
2001	65	74	-9
2000	111	71	40
1999	49	47	2
1998	38	47	-9
1997	-19	-15	-4
1996	-51	-52	1
1995	-123	-145	22

The discrepancies are relatively large, and have, among other things, been subject to criticism from the International Money Fund, IMF[21]. International comparisons are usually related to GDP. Since the government sector in Sweden is larger than in other countries, this also affects discrepancies. This is also true for the financial balance sheet total. The large accumulation of funds in the pension system and the relatively high government debt means that there is more to watch for in statistics than in countries where balance sheets that have been consolidated (by and large, only government debts). Another factor often mentioned as a reason why discrepancies are higher in Sweden than in other countries is that the Swedish Government uses a greater defence of financial instruments in handling liabilities than in

[20] Swedish National Financial Management Authority, the National Tax Board, the Swedish National Debt Office and other Government authorities.
[21] ROSC May 2001.

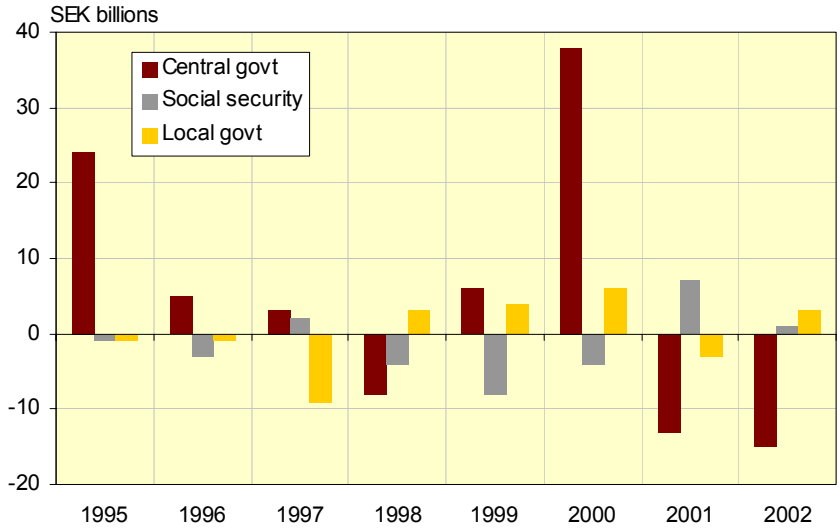
most other countries. The independent economies of the municipalities contribute yet another factor to pay attention to in this regard.

Differences in net lending calculated in real terms are also included in EDP reporting[22], probably to get an indication of reliability of the net lending calculations.

One explanation for the differences between the NA and the FA are the different accounting periods that are applied. In the NA, taxes are booked under the period in which they are accrued. This is a problem for the FA, where the information (central government debt etc) refers to payments. Tax refunds are one example, which in the NA are reported for the income year, while the FA registers tax refunds when households receive their money. This difference should be taken care of in the FA (NA follows ESA95 regulations).

We have previously shown that discrepancies in the sub-sectors often run in opposite directions, implying for example that payments for sub-sectors have different accounting periods. However, the figure for these years does not support any such hypothesis.

Figure 21
Discrepancies net lending NA, FA government sub-sectors



Questions regarding the government sector will be investigated in sub-project 6: Government sector

4.4 Household sector

Sweden applies the principle that net lending in the various sectors is calculated independently of each other in the NA and FA respectively, and differences are openly reported. It is then up to the users to evaluate and interpret the different figures.

One exception to this principle is the household sector. Above all, users (since the beginning of the 1980s) prefer that the household sector is reported without discrepancies in the annual official calculations. To make a rather long and complicated story short, in the beginning of the 1980s, income statistics were booked as a residual entry in the NA to capture incomes (including unreported incomes) that needed to be included in order to equal household savings in the financial accounts. At that time, the FA decided the level of net lending in the household sector.

By the mid-1980s, it was understood that development on the financial markets meant that savings could no longer be based on the FA because of calculation problems. However, the

[22] The biannual report to EU concerning convergence criteria and stability pact.

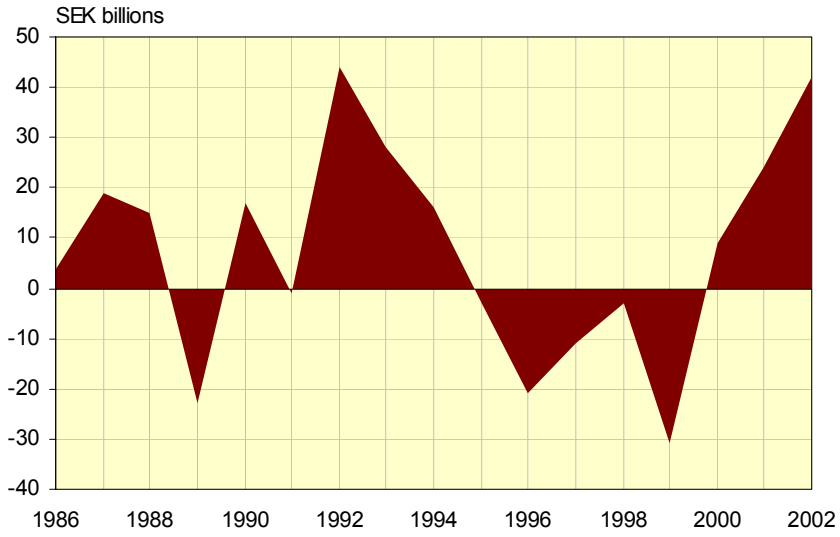
residual entry for income was maintained in the NA and was written up annually with a suitable index. The coordination of the NA-FA was also maintained, and a correction item needed to be inserted in the FA so that calculations would match. However, this mostly resulted in positive values (higher savings in the NA) and the accumulated residual entry grew and grew, reaching levels of SEK hundreds of billions by the mid 1990s. This residual entry soon received a lot of attention and various interpretations, above all as a measurement of household investments of unregistered net assets abroad.

In recent years, huge revisions have at times been made of household savings in the NA, and the previous picture of the residual item (nearly always positive) has been changed. As illustrated in the table and figure below, the residual entries are negative during the second half of the 1990s (implying that assets were brought home from abroad?) and afterwards again these entries are very positive. The accumulated value now amounts to more than SEK 300 billion (Figure 23).

Table 23
Net lending. Household sector

	NA	FA	Difference
2002	106	63	43
2001	92	69	23
2000	24	15	9
1999	14	45	-31
1998	25	28	-3
1997	36	47	-11
1996	60	81	-21
1995	82	85	-3

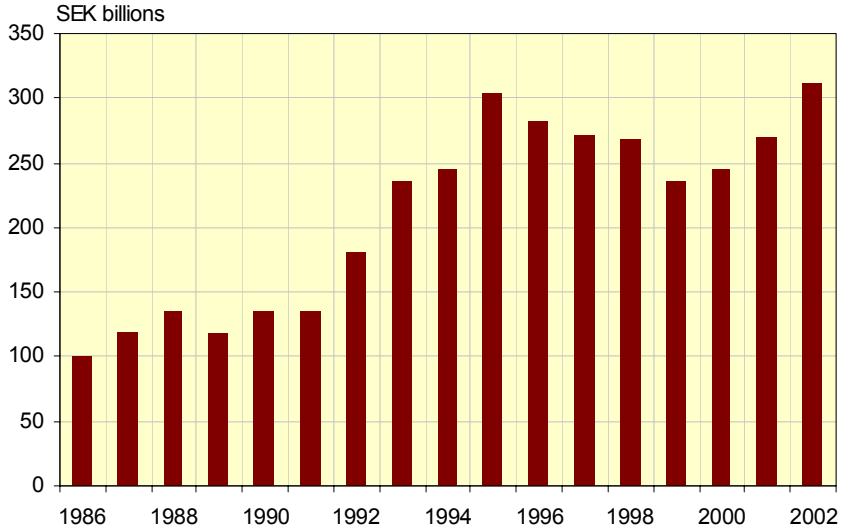
Figure 22
”Unexplained" household savings



The above residual entry has been looked at in the Tax base study[23]. A comparative analysis with the residual entry in the balance on current accounts was also made. However, the study concluded that one must be careful when interpreting the residual entry in the financial accounts as a measure of unregistered assets in other countries. Even if both the residual entries give a similar picture of unexplained flows of financial assets from the country, there are large differences in the time profile during the period that was studied.

[23] SOU 2002:47 page 297

Figure 23
"Unexplained" accumulated household savings



It is clear that the model used to calculate household savings in the FA has seen its better days. It is not reasonable that "other assets" of households are allowed to fluctuate as in recent years. The current method now requires that national and financial accounts are acceptably consistent on the whole for the entire economy, something that definitely is not the case.

The main purpose of the sub-project Household savings is to propose a new model for calculating household net lending in the financial accounts. To obtain better calculations of net lending according to the financial accounts, a separate calculation of other assets and liabilities is needed. The project group will take a look at this.

The issue for a new calculation model for household net lending the financial accounts will be studied in sub-project 5: Households

Comparisons between Statistics Sweden's income distribution surveys[24] and the financial accounts show some interesting results. Agreement between the material from tax returns based on wealth values and financial accounts (households) is surprisingly good. In 2000, values from Statistics Sweden's Population and Welfare Department are well over FA's for all items except for bank deposits. Except for the considerable advantage to be able to analyse household savings from a consistent micro and macro perspective, income distribution studies are important tools for evaluating the quality of the FA and vice versa.

4.5 Rest of the world

The problem with residual entries in the rest of the world sector was covered in detail during the 1970s and 80s. The work of the balance of payments delegation is particularly noteworthy[25] and Statistics Sweden's evaluation of calculations of the balance of payments within the frame of financial accounts, with participation of external experts. Efforts resulted in certain improvements of both non-financial and financial parts of the balance of payments.

In the summer of 1989, currency regulations were abolished. This resulted in a new situation regarding financial flows with the rest of the world. Portfolios were then adapted to the deregulation itself, and movement of capital was now completely free. For statistics, this

[24] Report from the unit for Economic Welfare at Statistics Sweden.
[25] Cooperation in balance of payments issues between the Riksbank, Statistics Sweden, the Ministry of Finance and the National Institute of Economic Research.

resulted in negative consequences. It was no longer possible to measure the financial flows with the same precision as previously. More types of lending and investment instruments, and drastically increasing volumes meant that calculation of the balance of current accounts from the financial side did not produce reliable results.

In this connection, we need to point out that there are two financial calculations of net financial transactions with the rest of the world (roughly, the balance of current accounts) in the financial account in the Riksbank's balance of payments statistics and Statistics Sweden's financial accounts. The results of the calculations since 1995 are illustrated below

Table 24
Net lending, rest of the world sector (roughly, balance of current accounts with reversed signs). SEK billions

	NA	FA	Difference	Residual entry balance of payments
2002	-102	-142	40	44
2001	-97	-39	-58	-103
2000	-87	-54	-33	-78
1999	-63	-97	34	-18
1998	-79	-30	-49	-66
1997	-75	0	-75	-78
1996	-56	-105	49	-19
1995	-58	3	-61	-24

In Table 24, it may appear that financial accounts give a more reasonable picture of capital flows with the rest of the world than if the financial account in the Riksbank's balance of payments statistics is used. However, it is too early to say which calculation gives the best precision, from the perspective of discrepancy size. The data for financial accounts is by and large identical with the data from the balance of payments. No thorough evaluation or control has been made on those points, which deviate.

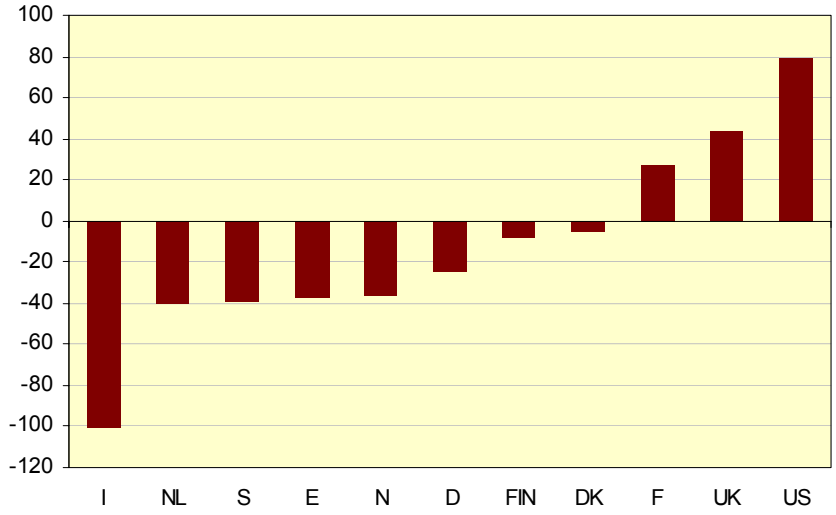
These questions will be further investigated in sub-project 7: Rest of the world.

When describing the situation from now on, calculations from the Riksbank's figures are therefore used as a measurement of financial flows with rest of the world, despite the significant discrepancies with the balance of accounts.

From 1995 to 2002, the current balance had a surplus of just under and average of 4% of GDP. Slightly more that half of this surplus, 2%, cannot be explained in financial terms; i.e. we cannot identify more than about half of the financial net assets that have increased as a result of the surplus in the balance of accounts.

The Swedish residual entry in the balance of payments is relatively large from an international perspective, but not the largest if we look at the absolute flow figures in relation to the total assets of the balance of payments. On the other hand, it seems that Sweden (together with Norway) tops the list (in relation to GDP) when it comes to accumulated residual entries since 1995. See the following figure for some selected countries.

Figure 24
Accumulated errors and emissions 1993–2001. USD billions. The minus sign indicates unexplained currency outflows



Source: International Financial Statistics. IMF 2003.

Some experts have interpreted the residual entries in the balance of payments (errors and emissions) to be systematic (unexplained currency outflows) because individuals and corporations took advantage of the ability to move large amounts of capital abroad after the currency deregulation in 1989. This concerned capital that was not registered via the reporting system that was used by the Riksbank (known as the BOK II system where all payments over a certain amount were reported via banks and other payment intermediaries).

Is it a serious problem that the non-financial and financial calculations of transactions with rest of the world result in such different net figures? As previously explained, the problem with residual entries has been more or less thoroughly studied in recent decades, but more so when the deficit in the current balance has been large.

One of the most recent contributions is an article from the Riksbank's quarterly publication[26] The authors review the contributing factors for residual entries and discuss how residual entries affect interpretation of the balance of payments and other economic statistics. They attribute currency deregulation and the following sharp expansion of financial flows to be the source of the problems in statistics. Among important explanations for residual entries are:

- Overestimation of net exports in foreign trade as a result of the EU statistical system (Intrastat)
- Direct investments by households in rest of the world are to a very limited degree captured in the balance of payments.
- It is difficult to trace trade in securities in the rest of the world.
- The bank sector's transactions with the rest of the world show a strong connection with residual entries.

In conclusion, the authors report that the residual entry in the balance of payments has contributed to erroneous levels of GDP, GNI and net external position.

Several analysts have related the sharp decline in the US dollar in recent time to the double deficit in the US economy (financial deficit in the Government sector and the balance of

[26] 2/2003 Blomberg, Fors, Karlsson

accounts). Regarding the balance of accounts, reasoning is that international lenders must exactly finance the huge deficit in the balance of accounts by purchasing US securities etc. This is on the condition that residual entries are of moderate size. As a result, analysis requires a consistent balance of payments, regardless of plus or minus signs in the balance.

4.6 Reconciliation procedures

Net lending is in principle calculated for the NA and FA independently. Two values are published for one and the same concept[27]. Differences are often very significant. Is this a good strategy? What do users want - one official value or two where statistical openness (transparency) is paramount?

As mentioned earlier, net lending is one of several balancing items in the national accounting system. Nearly all other balancing items have a value that has been decided on. The underlying calculations are adjusted and corrected so that all is properly balanced. This is of course also a possibility for net lending. We have used this model in Sweden when calculating household savings. A clear drawback in doing so is when the differences are systematic. Discrepancies accumulate and build up stocks of unexplained/undiscovered financial instruments.

What is the situation in other countries? It varies - in general, we can see three strategies or combinations of these.

1. To openly report discrepancies, i.e. report two values for net lending for each sector.

2. To hide all discrepancies, i.e. report a value and adapt the underlying aggregate.

3. To allow discrepancies up to a certain size, or alternatively, within certain decided intervals, report two values but in certain cases (for large discrepancies adapt to the underlying aggregate.

Results from bench-mark studies of other countries will be reported in the coming final report in December 2004. By studying this issue, we aim to find out how to best organise the work with sectoral accounts and financial accounts so that discrepancies in calculations can be brought down to an acceptable level.

[27] Eurostat has solved this problem so that"net lending" according the NA is the official net lending, while the corresponding balance in the financial accounts is called "net financial transactions".

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