

■ Errors and omissions in the balance of payments statistics – a problem?

BY GUNNAR BLOMBERG, LARS FORSS AND INGVAR KARLSSON

The authors work in the Monetary Policy Department.

The balance of payments statistics cover all economic transactions between Sweden and other countries. The Riksbank is responsible for producing and publishing these figures. The statistics are very similar to traditional accounting and based on the principle of double entry book-keeping. This means, quite simply, that the real and financial transactions should add up to zero. However, this is rarely the case, because of imperfections in the statistics. A special balancing item has been introduced to deal with this problem. The item has increased significantly for some years now, and an international comparison shows that the Swedish errors and omissions item is considerable. This article analyses the factors contributing to this item and discusses how it affects the interpretation of the balance of payments statistics and other economic statistics.

The significance of the balance of payments statistics as a base for monetary and foreign exchange policy has varied considerably over time. As a result, the attention given to the quality of the statistics has also altered. In this article we discuss the ways in which the uncertainty created by errors and omissions can affect the use and interpretation of economic and financial statistics where the balance of payments contributes a base.

Uncertainty in the balance of payments statistics – in retrospect

During the 1970s there was an at times very intense debate on which conclusions could be drawn for stabilisation policy with regard to the data reported in the balance of payments statistics. The current account showed a large deficit from the mid-1970s, which was connected to the deficit in public finances that arose at the same time. The current account deficit constituted a problem for stabilisation policy in that there was a risk it would threaten the fixed exchange rate and one solution to this was

During the 1970s there was an intense debate on what conclusions could be drawn for stabilisation policy from the balance of payments statistics.

more stringent fiscal policy. Sven Grassman, who was secretary of the balance of payments committee 1967–1971 (SOU 1971:31), considered that the current account balance gave an incorrect picture of financial net savings. He referred to other statistics, the Financial Accounts, which provided a more positive view of Swedish net savings vis-à-vis the rest of the world. Mr Grassman believed that stabilisation policy had been pursued on the wrong premises as it had relied on statistics that provided an exaggeratedly negative picture of net savings in an international comparison. In his opinion, this meant that the fiscal policy restraint then exercised was too far-reaching.

The discussion concerning the uncertainty in the current account statistics contributed to the creation of the Balance of Payments Committee in 1975.

The discussion concerning the uncertainty in the current account statistics contributed to the creation of the Balance of Payments Committee in 1975. This delegation, which included representatives of the Ministry of Finance, Statistics Sweden and the Riksbank, carried out an annual survey of trade in services and also established the current account balance on the basis of these surveys.

It is possible to observe, with today's experience of stabilisation policy, that it would have been worthwhile analysing other factors, such as inflation expectations, central government finances and the production gap, more than was actually the case. However, the significance of the balance of payments statistics must be regarded in the light of the fixed exchange rate, which then served as anchor for monetary policy. Financial transactions were strictly regulated through foreign exchange controls. Large deficits on the current account could lead to financing needs that would be difficult to master and thus threaten the fixed exchange rate. Among these causes, the current account balance was a variable that was closely monitored and where quality and measuring problems were apportioned great significance.

The significance of the balance of payments statistics must be seen in the light of the fixed exchange rate, which then served as anchor for monetary policy.

Current use of balance of payments statistics

Today the situation is quite different. The balance of payments statistics are only one of several bases used for assessing monetary policy. Deregulated foreign exchange markets and a floating exchange rate have also meant that other issues in the balance of payments statistics are now regarded as more important to analyse.

One issue is the size and content of the financial net savings. The abolition of currency controls in 1989 led to a significant part of Swedish savings being channelled abroad. Moreover, the conditions for the Swedish general public's savings have changed radically through the lower inflation rate established during the 1990s and new conditions for saving in pension funds, which has had a major impact on financial flows

One issue is the size and content of the financial net savings.

vis-à-vis the rest of the world. As the size of net savings is determined by the current account balance, while the allocation and disaggregation of net saving is acquired from the financial flows statistics, it is of interest that the balances of the real and financial flows are as similar as possible. Large unexplained errors and omissions limit the possibilities for correctly describing and analysing the content and allocation of net financial saving.

There are a number of other aspects why it is necessary for balance of payments statistics to be of acceptable quality:

- as a basis for the National Accounts with regard to the component of GDP that refers to foreign trade; i.e. net exports of goods and services,
- as a basis for structural statistics with regard to detailed information on direct investments to illustrate questions concerning foreign ownership of Swedish companies and vice versa, and
- as a basis for calculations of how the krona rate has been affected and for short-term analyses of the rate.

The Riksbank is responsible for compiling statistics regarding Sweden's external position, that is to say, the total financial assets and liabilities abroad, which can be used in calculations regarding the equilibrium rate of the krona.

Given the various fields of application for balance of payments statistics today, it is important to try to clarify how the disruption caused by errors and omissions may affect the usability of the statistics for different purposes. It is particularly important to clarify whether this uncertainty also means that the basis used for policy discussions and decisions could be misleading.

What are errors and omissions in the balance of payments statistics?

Errors and omissions in the balance of payments statistics arise when savings measured in real terms (i.e. the balance on the current account and capital balance¹) do not correspond to the size of the financial flows measured in the financial balance statistics. The balance on the current account and the capital balance should, if all transactions have been correctly recorded, be equal to the size of the financial flow in the opposite direction. In other words, the balance of payments data is based on the principle of double entry bookkeeping. In order to create a counterweight to measurement errors and other imperfections in the balance of pay-

In order to create a counterweight to measurement errors and other imperfections in the balance of payments statistics, a special balance sheet item is introduced to ensure the transactions total zero.

¹ Capital balance corresponds to the concept used previously in the balance of payments entitled "Capital transfers etcetera".

ments statistics, a special balance sheet item (errors and omissions) is introduced to ensure the transactions total zero.

An example can be used to illustrate this. During 2001 a surplus was measured in the balance on the current account and the capital balance amounting to SEK 86 billion. At the same times, the financial flows showed a net inflow of SEK 17 billion. The total of these is SEK 103 billion and errors and omissions, which constitute the total net error in the balance of payments, thus corresponded to minus SEK 103 billion that year.

A negative errors and omissions items indicates, in simple terms, that either the outflows have been underestimated or the inflows have been overestimated in the balance of payments, or, of course, there has been a combination of incorrect estimates.

Measurement errors which create errors and omissions come in three different types:

- Coverage errors: All operators with business abroad have not been covered in the surveys. Alternatively, only part of their transactions abroad has been registered.
- Measurement errors (evaluation errors): The values registered are not correct, which can be due to definitions, information from the reporting bodies, and translation of currencies being incorrect (for example because of exchange rate fluctuations).
- Time errors (periodisation errors): Transactions are reported for the wrong period of time (do not cause accumulated errors and omissions errors, however).

Errors and omissions is a very rough measure of the quality of the statistics.

It should be pointed out that this item is a very rough measure of the quality of the statistics. Errors and omissions is a figure that only reflects the net amount of the respective overestimates and underestimates made in the balance of payments. It does not necessarily follow that countries reporting a small errors and omissions item maintain better quality statistics. As this item is a net figure, a small item for errors and omissions item can equally entail large errors in different parts of the statistics but that these counter-balance one another.

How do errors and omissions look?

Errors and omissions have shown negative figures since the mid-1990s.

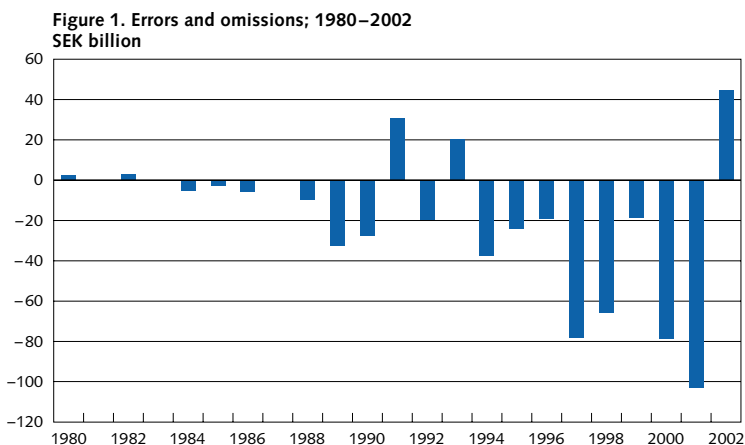
The errors and omissions item in the balance of payments statistics began to grow at the end of the 1980s and has shown negative figures since the mid-1990s, with the exception of a few individual years. This means the Riksbank has either underestimated the outflows or overestimated the inflows during this period. If this item is accumulated from the beginning of the 1980s, the total net error at the end of 2002 would amount to approximately SEK 430 billion.

Have errors and omissions increased?

The size of this item is partly connected to the quality of the balance of payments statistics. It is therefore interesting to try to assess the size of errors and omissions and find out whether this item has actually increased over time.

When assessing how errors and omissions have developed over time, it is not sufficient to merely regard this item in nominal terms (see Figure 1). Economic activity and the scope of the transactions abroad have grown, which makes it more relevant to put errors and omissions in relation to variables such as GDP or the balance sheet total on the current account than to look at absolute figures. Figure 2 presents the relative development of errors and omissions since 1991 in three different ways: as a percentage of GDP, as a percentage of the current account and the balance of payments and as a percentage of the basic balance.

To assess developments, it is more relevant to put errors and omissions in relation to other variables than to look at absolute figures.



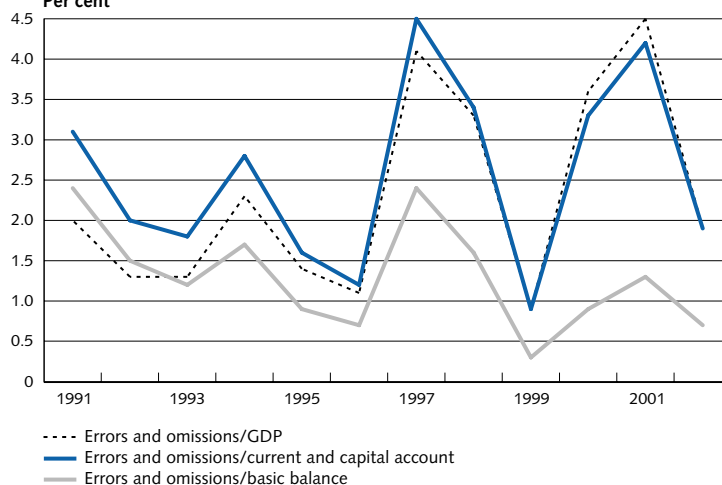
Errors and omissions as a percentage of GDP. Errors and omissions have increased markedly in relation to GDP during the period 1990 to 2001. While this is, of course, worrying it should be borne in mind that the errors and omissions item is probably only attributable to a small degree to such items in the balance of payments that are included in GDP.

Errors and omissions as a percentage of gross flows regarding current account balance and capital balance. The relation of errors and omissions to the gross total of real flows in the balance of payments also shows an increase, though this is not as marked as in the comparison with GDP.

Errors and omissions as a percentage gross flows of Basic balance². Here, errors and omissions in absolute figures have been compared with the

² Basic balance is the accepted term for the current account, capital balance, direct investment and majority of securities trading.

Figure 2. Errors and omissions in relation to GDP, to gross flows regarding current and capital account and to gross flows regarding basic balance; 1991–2002
Per cent



items in the balance of payments containing information on the gross transaction flows, that is to say, the current account balance, the capital balance, direct investment and the majority of securities trading. The comparison base thus also includes financial flows, which have increased considerably during the period. This comparison takes greater account of the fact that the flows the balance of payments should include have increased dramatically. According to this comparison, errors and omissions have shown a relative decline during the period.

It is not possible to say definitely which of the above comparisons is the most correct. In international terms, the comparison using the current account and capital balance is the most common.

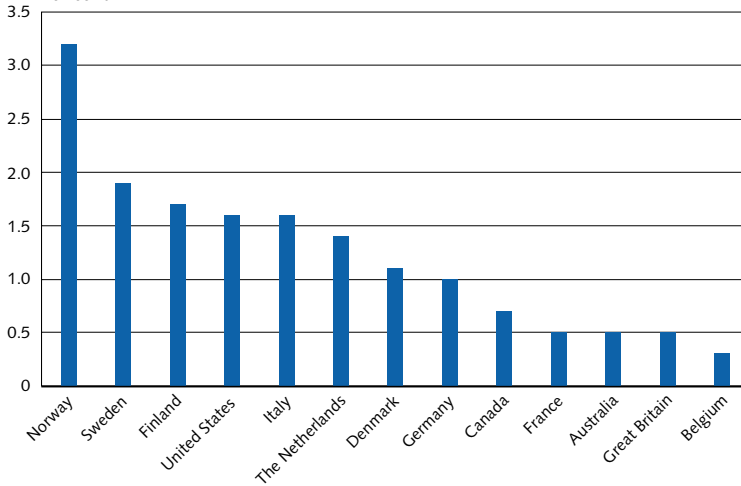
Errors and omissions in an international comparison

An international comparison has been made, in which errors and omissions were set in relation to the gross balance sheet total in the items current account balance and capital balance. Sweden came second out of a total of thirteen countries (see Figure 3). This indicates that the Swedish errors and omissions item is relatively large, in international terms.

The comparison measure used here has its shortcomings and there is no completely correct measure for comparing errors and omissions in different countries. This comparison, where errors and omissions are compared with the real flows in the balance of payments in different countries, does not take into account the fact that the significance of financial flows may vary from one country to another. From this point of view, it would be more relevant to compare this item to the basic balance, which also takes into account the fact that the turnover on the financial markets

There is no completely correct measure for making a comparison between the errors and omissions items in different countries.

Figure 3. Errors and omissions in relation to gross flows regarding current and capital account; average 1994–2001
Per cent



has increased. The comparison measure has largely been governed by which statistics were available. Despite the fact that it is impossible to make a completely correct comparison, the review shows that the problems of correctly capturing the flows that form part of the balance of payments figures are fairly large in Sweden.

What has caused the errors and omissions?

Factors which have most probably contributed to the rapid increase in errors and omissions at the end of the 1980s and beginning of the 1990s are the currency deregulation and the large expansion in the financial flows in particular in the form of securities and short-term transactions that followed on from this. Deregulation changed the conditions for collecting balance of payments statistics and, together with the continuing financial integration during the 1990s; this has significantly increased the difficulty of correctly covering all financial transactions. The floating of the krona in 1992 may also have led to greater uncertainty when assessing the transactions in the balance of payments.

Factors contributing to the rapid increase in errors and omissions are the currency deregulation and the ensuing strong expansion in financial flows.

The more or less specific explanations for errors and omissions include:

- *Overestimation of net export in foreign trade.* It is a well-known fact that the statistics on trade in goods within the European Union (EU) have resulted in a systematic overestimation of exports. Eurostat has compared the various EU countries' statistics on internal trade in goods. These comparisons can be used as a basis for assessing the size of the errors for different countries. The comparisons made for Swedish foreign trade with EU countries show an overestimate of

exports by approximately SEK 6 billion a year in both 1999 and 2000. This overestimate, which has arisen in connection with the new collection system for trade in goods within the EU introduced in 1995, could have provided a contribution to the negative errors and omissions for the years 1995 to 2001 of approximately SEK 40 billion.

- *Households' direct investment abroad.* Individual households' investments directly abroad (not via a Swedish intermediary) in the form of, for instance, stocks, shares or bank deposits, are only captured to a very minor extent in the balance of payments statistics. When these flows abroad are not captured in the balance of payments, they lead to a negative errors and omissions item. According to an expert report to the tax base commission (SOU 2002:47), the total flows of these investments up to 1999 were estimated at SEK 250 billion. However, both Statistics Sweden and the Riksbank assess that this is an overestimate, partly because the errors and omissions in the balance of payments statistics and the national accounts system show poor agreement over time, and partly because several other factors contribute to this item. Nevertheless, it is clear that households' direct investments abroad are an important explanation for the negative errors and omissions item and that this contribution is probably larger than the error in foreign trade statistics.
- *Securities trading.* The statistics on securities trading with other countries have occasionally demonstrated shortcomings in the coverage of redemption of Swedish securities held by foreign investors. This has meant that an outflow has avoided registration in the balance of payments figures, resulting in a negative errors and omissions item. It is not possible to estimate the size of this effect.
- *The banking sector's transactions abroad.* The banks' foreign transactions have on repeated occasions shown a strong errors and omissions connection, particularly when this item has shown substantial monthly fluctuations. Discussions with the banks have not provided any explanation for this. In addition to the severe fluctuations in this item from one month to the next, it is not possible to say to what extent it has contributed to the negative errors and omissions item over time.

A significant part of errors and omissions probably reflects short-term capital movements as liquidity transfers.

In addition to the areas mentioned above, where the Riksbank has identified contributions to measurement errors in the balance of payments, it is probable that a significant part of errors and omissions reflects short-term capital movements as liquidity transfers, which have avoided registration in the balance of payments. Such movements can be expected to give rise

to strong fluctuations in errors and omissions; fluctuations which primarily show up on a monthly basis, but sometimes also on an annual basis. It is possible that the large turnaround in errors and omissions during 2002 is due to this. In the same way as at the beginning of the 1990s, when positive errors and omissions items were noted, fluctuations in economic activity may have given rise to changes in liquidity requirements among companies. Changes in liquidity flows could in turn have caused the errors and omissions to change around at these points in time.

Errors and omissions and interpretation of economic statistics

One important question is whether the balance of payments statistics, as a result of the errors and omissions, have given signals that have led to misinterpretation of economic developments in Sweden. This question must be regarded in the light of the errors and omissions in the balance of payments mainly moving in one direction and corresponding to unexplained outflows. The one-sided errors and omissions item could mean that there is a systematic bias in the coverage of the transactions abroad, which in turn affects the value of important economic aggregates. At the same time, certain components in the balance of payments statistics are essential from a policy perspective, while a higher degree of uncertainty can be accepted for others. On the basis of this description of the causes of errors and omissions, the picture described here is attained.

The one-sided errors and omissions item could mean there is a systematic bias in the coverage of transactions abroad.

One effect of net exports of goods and services being reported at an excessively high value is that the size of Sweden's GDP is overestimated. An adjustment for the overestimation of trade in goods with EU countries, as reported, would lower the level of GDP by 0.2 to 0.3 per cent. On the other hand, the change figures for GDP would be only slightly affected by such an adjustment. This effect can to some extent be counteracted by the fact that the coverage of trade in services has been too low, for instance as transactions in services abroad are not always classified by the reporting companies as services. In addition, the collection has been affected by significant structural changes in trade in services in recent years.

The fact that net exports of goods and services are reported at an excessively high value means that the size of Sweden's GDP is overestimated.

One consequence of households' direct investments abroad not being covered in the statistics is that Sweden's net external position is more positive than is reported in the statistics. At the end of 2001, Sweden's total assets and liabilities abroad amounted to a net debt of approximately SEK 500 billion, or corresponding to around 24 per cent of GDP. An adjustment for households' "hidden" assets would mean the Swedish net debt was reported at a lower figure.

An adjustment for households' direct investments abroad would entail a lower Swedish net debt.

Gross national income would also be higher than is presently reported.

Sweden's gross national income, GNI, which includes the net flow of earnings on capital between Sweden and other countries, would also be higher than is presently reported if an adjustment was made for the earnings on hidden assets abroad. The earnings received by Swedish households would, even if they were reinvested directly abroad, be registered as income from earnings on capital and thus be included in gross national income. However, it is not possible to say how large these earnings are, as both the size and composition of the assets is unknown.

The errors and omissions item in the balance of payments has contributed to incorrect levels for GDP, GNI and net external position.

The errors and omissions item in the balance of payments has thus contributed to incorrect levels for GDP, GNI and net external position. With regard to interpretation of the flows and their fluctuations, it is primarily the financial balance that is affected. On the other hand, it is not likely that the errors and omissions item in the balance of payments has led to an incorrect picture of the size of developments in the real economy as a whole.

Errors and omissions in economic statistics

In the National Accounts system, differences between the balance of real and financial flows are measured for domestic sectors.

The errors and omissions item in the balance of payments figures is, as mentioned earlier, an expression of the difference between the balance of the real and financial net flows measured abroad. In the National Accounts system, differences between the balance of real and financial flows can be measured in the same way for domestic sectors. It is, of course, interesting to analyse these errors and omissions, in the same way as those for the balance of payments, as they comprise a basis for the work on quality assurance of the National Accounts. However, the Commission on the Review of Economic Statistics within Statistics Sweden (SOU 2002:118), which presented a final report earlier this year containing proposals for improvements in Swedish statistics, was limited to the real parts of the National Accounts. The committee did not have a mandate to examine the Financial Accounts and thereby the errors and omissions between the real and financial statistics.

The work on limiting errors and omissions and keeping them at a reasonable level requires immediate quality assurance work and adapting the collection of statistics to new conditions as they arise. The Riksbank has chosen to transfer responsibility for collection of parts of the balance of payments statistics, including trade in services abroad, to Statistics Sweden with effect from 2003, in order to focus on the collection and checking of financial flows and external position. This may facilitate the work on improving the quality and minimising the errors and thereby the size of the errors and omissions item in the Swedish balance of payments statistics.