# Problems of international comparisons of direct investment flows

International direct investment has become the focus of public attention in the locational debate during the past few years. The attractiveness of different locations is measured, *inter alia,* by the data on direct investment stocks; the movement in direct investment stocks in 1994-5 was the subject of the preceding article. As these stock figures are usually lagging behind, however, the data on direct investment flows from the national balances of payments, which are available at an earlier date, are mostly at the centre of locational comparisons. Such comparisons may lead to misinterpretations, however, since the national balance of payments data on direct investment are often not compiled in accordance with consistent principles. Despite the efforts by the OECD and the IMF in the past few years to reach international harmonisation, the reporting systems and recording practices for direct investment flows still differ greatly from country to country. The present article traces the deviations between the German and the foreign data on direct investment. At the same time, initial results of a further adjustment of the German statistics to the new international guidelines of the IMF are introduced.

*International discrepancies between reported direct investment flows*

As early as 1992 the International Monetary Fund, using data from the eighties, drew attention to the problem of discrepancies in statistically recorded worldwide direct investment flows which should, in fact, cancel out if the data were consolidated.[1] The Statistical Office of the European Communities (EUROSTAT), too, ascertained considerable asymmetries between incoming and outgoing payments for direct investment between the EU countries.[2] A comparison of the direct investment flows on the basis of the German and the foreign balance of payments statistics likewise reveals great differences with respect to Germany. In the period from 1984 to 1994, for which comparable data from the balance of payments statistics of 18 OECD countries are available, the German balance of payments statistics recorded direct investment of DM 34½ billion in Germany by enterprises from this group of countries, whereas the foreign data showed net investment of DM 137 billion in Germany (see the adjacent table). In the case of German direct investment abroad, the differences are in the opposite direction: in the period mentioned, the outflows shown in the German balance of payments were distinctly larger, at DM 226 billion, than the inflows recorded in the OECD countries (DM 166 billion). Discrepancies of a similar size result for other countries, too, above all during the nineties.

### International discrepancies between reported direct investment flows *

Net investment, in DM billion

| Year | Foreign direct investment in Germany | | German direct investment abroad | |
|---|---|---|---|---|
| | German balance of payments statistics | Foreign balance of payments statistics | German balance of payments statistics | Foreign balance of payments statistics |
| 1984 | 0.8 | 2.8 | 9.4 | 5.0 |
| 1985 | 0.7 | 3.3 | 12.5 | 8.9 |
| 1986 | 2.5 | 4.7 | 19.4 | 9.1 |
| 1987 | 2.8 | 4.0 | 14.0 | 12.0 |
| 1988 | 0.6 | 1.3 | 18.3 | 9.2 |
| 1989 | 12.7 | 18.5 | 24.2 | 16.9 |
| 1990 | 2.9 | 26.1 | 32.1 | 16.5 |
| 1991 | 4.7 | 26.0 | 32.2 | 16.3 |
| 1992 | 5.6 | 18.3 | 25.0 | 18.3 |
| 1993 | 0.6 | 13.4 | 19.8 | 30.5 |
| 1994 | 0.9 | 18.9 | 19.2 | 23.4 |
| 1984/94 | 34.6 | 137.2 | 226.1 | 166.0 |

Source: OECD. — * Discrepancies between the German balance of payments statistics and the balance of payments statistics of 18 OECD countries.

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*Different collection systems*

There is a whole series of reasons for the great divergencies between the German and foreign data on international direct investment. The different collection systems which do not always ensure a complete recording of international financial flows probably play a role. Some countries base their statistics on regular surveys among enterprises in the form of complete or sample surveys which are made quarterly, half-yearly or annually. Where the transactions are derived from changes in stocks, the results differ if only because of exchange rate changes. Other countries record the transactions by linking them to the relevant payments.

In Germany direct investment flows are recorded in the balance of payments on the basis of payment reports. The term "payment" is defined broadly and includes in the case of direct investment the contribution of real assets and rights, etc. Irrespective of this, the aforementioned stock data taken from the reports of enterprises on their direct investment are available in Germany. The Deutsche Bundesbank uses both statistical

1 See International Monetary Fund, Report on the Measurement of International Capital Flows, Washington, D.C., September 1992, pages 23 to 33.
2 See EUROSTAT, European Union Direct Investment Yearbook 1996, Luxembourg 1997, pages 299 to 302.

sources for the mutual reconciliation and for identifying any reporting gaps.

## Significance of short-term credit operations between affiliated enterprises

*Different definitions*

The main cause of the international discrepancies is probably not the problems associated with collection techniques but discrepancies in the definition of international direct investment. The different treatment of short-term financial operations between domestic and foreign affiliated enterprises seems to be a primary factor. In the German balance of payments these have always been shown under "Other financial transactions" and not as direct investment. It is mainly conceptual considerations which argue in favour of this recording method: direct investment is generally understood to mean international investment aimed at establishing a lasting interest in an enterprise in another country. It is at least questionable whether short-term financing is an appropriate way to establish or extend a lasting direct investment relationship. This applies all the more given the fact that the financial operations of international groups are being increasingly controlled centrally. Short-term financial flows within multinational enterprises therefore reflect less and less selective transactions to establish corporate ties but increasingly the liquidity operations of the entire group of enterprises, and these operations are determined, *inter alia,* by exchange rate and interest rate trends and by tax considerations.

Despite such misgivings, the Deutsche Bundesbank will, in the interest of better international comparability, follow the practice used by many other countries and show short-term assets and liabilities between affiliated enterprises in the form of financial and trade credits in a special item under direct investment. Initial – and still provisional – figures are given in the table on page 80. The data given in the table are based on the monthly reports of enterprises on their assets and liabilities vis-à-vis non-residents where the relevant credit operations with affiliated enterprises abroad have to be reported in a sub-item. The monthly changes in these items, which, incidentally, are not adjusted for exchange rate fluctuations, have so far been shown in the German balance of payments under "Other financial transactions", as mentioned above.

*Inclusion of short-term credits*

However, that poses the problem that the reports on short-term external assets (and liabilities) do not show whether these concern

– an increase in the direct investment of a German/foreign enterprise abroad/in Germany

– or, conversely, a decrease in the direct investment of a foreign/German enterprise in Germany/abroad.

*Asset/liability principle*

A makeshift "solution" would be to classify the net changes in domestic enterprises' assets vis-à-vis affiliated enterprises abroad under German direct investment abroad, irrespective of whether these are assets of a domestic parent company vis-à-vis a foreign subsidiary or assets of a domestic subsidiary vis-à-vis the foreign parent company. Conversely, the net changes in domestic enterprises' liabilities to affiliated enterprises abroad would be classified under foreign direct investment in Germany. In the balance of payments statistics this classification principle is called the "asset/liability principle".

*Directional principle*

Such a presentation, however, would not be in line with the IMF recommendations.[3] According to these recommendations, all changes in the assets and liabilities of a domestic enterprise vis-à-vis the foreign parent company should be shown under foreign direct investment at home (as a new investment or liquidation). Conversely, the changes in the assets and liabilities of a domestic parent company vis-à-vis its foreign subsidiaries should be shown under direct investment abroad (directional principle). By way of an approximation, this can be achieved by recording the assets and liabilities vis-à-vis affiliated enterprises abroad separately for domestic enterprises controlled by non-residents and domestic enterprises controlled by residents.[4] In a special evaluation the Deutsche Bundesbank separated the reporting German enterprises in this way and accordingly classified the changes in the short-term external assets and liabilities by foreign direct investment in Germany or by German direct investment abroad.

*Effects of revisions*

As the results compiled in the adjacent table show, the recording methods mentioned lead to distinctly higher figures on both sides of the German direct investment account. These also reduce the discrepancy between the (higher) foreign data on direct investment in Germany and the (lower) German figures on capital inflows from direct investment. By contrast, they increase the difference between the (higher) German data on German direct investment abroad and the (lower) foreign figures on capital imports through the direct investment of German enterprises. If the asset/liability principle is applied, German direct investment abroad between 1984 and 1994 rises by about DM 68 billion and foreign direct investment in Germany by DM 64½ billion. If the directional principle is used, the revisions are much smaller. German direct investment abroad increases by DM 16 billion

**Direct investment and short-term credit operations* between affiliated enterprises from 1984 to 1994**

DM billion

| Item | Foreign direct investment in Germany | German direct investment abroad |
|---|---|---|
| Direct investment as currently defined by the Bundesbank | 44.9 | 279.2 |
| Short-term lending between affiliated enterprises | | |
| – according to the asset/liability principle | 64.5 | 67.9 |
| – according to the directional principle | 12.6 | 16.0 |

* Special evaluation of the reports on lending between affiliated enterprises in Germany and abroad.

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3 See International Monetary Fund, Balance of Payments Manual, 5th edition, Washington, D.C., 1993, and the accompanying Balance of Payments Compilation Guide (1995).
4 Such a separation does not take account of the fact that a domestic enterprise dependent on non-residents may hold participating interests of its own abroad, i.e. that it acts as an investor itself.

and foreign direct investment in Germany by almost DM 13 billion.

*Data from the stock statistics*

A third option for assessing the significance of short-term financial operations between affiliated enterprises is provided by the stock statistics which are based on balance sheet data. According to these statistics, primary foreign holdings in Germany resulting from short-term financial credits and trade credits in the period under review can be put at approximately DM 60 billion. Conversely, German firms' direct investment abroad is DM 25 billion higher than it would be if short-term credits were excluded. However, it has to be remembered that, owing to valuation problems, the stock figures cannot be compared directly with the relevant transaction figures.

*Results*

In the upshot, it is undisputable that, in the case of a broad definition of direct investment, international direct investment has been higher in the past few years than has so far been reflected in the figures given in the German balance of payments. According to the stock statistics, these revisions seem to be much higher on the capital import side, i.e. in the case of foreign direct investment in Germany, than they are on the capital export side.

*No "all clear" in locational policy terms*

Higher foreign investment in Germany on account of changes in the definition of direct investment and its statistical recording is no reason to sound the "all clear" in the locational question. Irrespective of the circumstance that the locational problems are more complex and that direct investment data have, in principle, only a limited informative value for assessing the attractiveness of a location, the adjustments made do not alter the fact that the balance of the German direct investment account is sharply negative and that, moreover, the deficit has risen distinctly in the past few years according to any definition. Incidentally, the revisions according to the first two calculation methods mentioned are almost completely neutral in respect of the balance of the German direct investment account. The calculations presented show, however, that caution is appropriate if only because of the different treatment of short-term credits between affiliated enterprises, especially when comparing direct investment data internationally. There are also further reasons for the discrepancies between the data.

## Other differences in the direct investment statistics

The box on page 82 gives an overview of the other differences in the data which have to be taken into account in international comparisons. One of the reasons for these differences may be seen in the fact that former editions of the IMF Manual, which is the basis for the national balance of payments statistics and thus for the data on international direct investment of all IMF members included therein, provided a relatively vague definition of the term "direct investment". With the increase in the international integration of enterprises and their evermore complicated financing techniques, the IMF and the OECD have endeavoured to define direct investment more accurately and to develop a coordinated set of rules for its statistical recording. Typical of the

## Major methodological deviations of the national direct investment statistics from the IMF definition

**Direct investment relationship**
In the German statistics a direct investment relationship is assumed, in principle, only if a participating interest of more than 20 % is held. The changeover to the 10 % limit – which has already been implemented in a number of countries – is planned. According to trial calculations, however, these changes will not result in any major revisions of the figures.

**Direct investment resources**
In Germany and in several other countries direct investment resources are in some cases defined more strictly than by the IMF/OECD. Unlike Germany, some countries do not record reinvested earnings. Although, in several direct investment statistics, short-term assets and liabilities arising from financial credits between affiliated enterprises are included, these statistics do not contain trade credits. Many countries record predominantly financing transactions associated with payments; financing transactions without payments, such as non-cash contributions, are not sufficiently covered by the collection systems.

**Classification principles**
Different principles in classifying financial transactions into one of the two categories "Domestic direct investment abroad" or "Foreign direct investment at home" lead to considerable discrepancies since the directional principle recommended by the IMF is not yet being used by all countries. These countries use the asset/liability principle. In line with this principle, they show all cross-border payments associated with intra-group assets as direct investment abroad. This also applies to the assets of a domestic subsidiary vis-à-vis the foreign parent company, which, according to the IMF Manual, should be shown as a deduction under foreign direct investment at home. Conversely, they classify all transactions associated with intra-group liabilities (including the liabilities of a domestic parent company to the foreign subsidiary) as foreign direct investment at home; according to the directional principle, the latter should be shown as a deduction under domestic direct investment abroad.

**Valuation principles**
Diverging valuation principles may also result in discrepancies. This applies particularly to reinvested earnings: some countries include unrealised book profits (for example, valuation gains arising from exchange rate changes), whereas other countries do not include them, in accordance with the applicable accounting regulations. As far as Germany is concerned, discrepancies of this type could be observed, above all, in the case of reinvested earnings of domestic subsidiaries of foreign enterprises. The differences between the (lower) German figures and the results of the partner countries are sometimes considerable; in the case of the United States they amounted to over DM 25 billion between 1984 and 1994.

**Further discrepancies**
This list of methodological discrepancies is not exhaustive. Other differences in recording and presenting direct investment flows may be disturbing from time to time – this applies, for example, to the treatment of financial transactions between affiliates or between subsidiaries and indirect subsidiaries, the exchange of (change in) participating interests in domestic enterprises between two countries (i.e. transactions outside the German economic territory which are therefore not included in the German balance of payments) or transactions through group-owned financing subsidiaries abroad.

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rapidly changing conditions in this field is the fact that the "Detailed Benchmark Definition of Foreign Direct Investment" first issued by the OECD in 1983 has had to be revised no less than three times (in 1990, 1992 and 1996). The IMF last presented a detailed definition (which essentially tallies with the OECD benchmark definition) in the fifth edition of its Manual which appeared in 1993.

*Uniform definition criteria*

The various revisions of the term "direct investment" essentially had the following aims:

– to provide a clear definition of direct investment: in principle, a direct investment is deemed to exist if a capital interest of 10 % and more is held;

– to record all financial transactions between affiliated enterprises as direct investment, irrespective of whether they concern short or long-term, securitised or unsecuritised financial resources, whether they are associated with payments or whether the financial resources are accompanied by other services of the group enterprise (for example, contribution of tangible fixed assets, delivery of goods or reinvested earnings). In the case of a domestic subsidiary, not only the financial transactions with the foreign parent company but also the financial transactions with other enterprises abroad belonging to the same group are to be included;

– to classify direct investment by domestic investment abroad and foreign investment at home. So-called reverse flows are to be shown according to the direction of the capital relationship (directional principle): credits from the foreign subsidiary to the domestic parent company or the acquisition of shares in the parent company by the foreign subsidiary are to be recorded in the balance of payments as a decrease in direct investment abroad; conversely, credits from the domestic subsidiary to the foreign parent company reduce foreign direct investment at home.

*Difficulty in adjusting national statistics*

So far most countries have adjusted only part of their balance of payments statistics in the field of direct investment to the rather complicated new regulations. There are considerable obstacles to a rapid adjustment because the existing reporting requirements for direct investment have to be extended perceptibly, and this requires amendments to the relevant legislation in most cases. In addition, the identification of financial transactions between subordinated affiliated enterprises and the accurate classification of financial operations by domestic and foreign direct investment presuppose an exact knowledge of the group structure of the enterprises concerned.

*Outlook*

The OECD and IMF are planning to review the concepts used in the individual countries and their deviations from the new international standards. In addition, the European Monetary Institute is working on the harmonisation of direct investment statistics at the European level, particularly in the field of reinvested earnings. The Deutsche Bundesbank is supporting these harmonisation efforts and is endeavouring to improve the comparability of these figures by adjusting its own statistics accordingly.