

## **TECHNICAL DOCUMENTATION**

# MICRODATABASE DIRECT INVESTMENT – MIDI A BRIEF GUIDE

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# MICRODATABASE DIRECT INVESTMENT – MIDI A Brief Guide

### 1 Introduction

#### 1.1 General information

The Bundesbank has been collecting annual statistics on foreign direct investment stocks in accordance with the provisions of the Foreign Trade and Payments Regulation (Außenwirtschaftsverordnung) since 1976. Before then, the only way to obtain data on the German economy's international capital links had been by summarising transactions, such as those contained in the balance of payments statistics. However, this limited the ability to determine the structure and scope of foreign direct investment stocks. Reliable results concerning the type and extent of international capital links were only obtained once stocks of direct and indirect investment by non-residents in Germany and by residents in foreign economic territories were recorded systematically.

This document contains the technical information required to comprehend the database and therefore finally enables researchers to work with the MiDi.<sup>§</sup>

#### 1.2 Reporting requirement

The reporting procedure and data that must be reported for the direct investment stock statistics is stipulated in section 56a and 56b (Residents' assets in foreign economic territories) and section 58a and 58b (Non-residents' assets in the economic territory) of the Foreign Trade and Payments Regulation. Since September 1989, the reporting forms have been structured in line with the 1985 Accounting and Reporting Law (Bilanzrichtliniengesetz). The reporting thresholds have been altered many times in the past.

| As of reporting year | Shares or voting rights         | Balance sheet total   |
|----------------------|---------------------------------|---|
| 1989<br>1993         | >20% (previously: ≥25%)<br>>20% | > DM 500,000<br>> DM 1 million                              |
| 1999                 | 10% to less then 50% ≥50%       | > DM 10 million <sup>1</sup><br>> DM 1 million <sup>2</sup> |
| 2002                 | ≥10%                            | > € 3 million   |

Reporting requirements pursuant to sections 56a and 58a of the Foreign Trade and Payments Regulation

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I would like to thank Dietmar Scholz and Beatrix Stejskal-Passler for the provision of the data, valuable comments, helpful discussions and their readiness for questions of all kinds as well as for the obligatory verifications of the research output. All errors and inaccuracies are my own.

<sup>1 €5</sup> million as of the 2001 reporting year.

<sup>&</sup>lt;sup>2</sup> €500,000 as of the 2001 reporting year.

These changes mean that the number of reports due fluctuated considerably. But, since the modification of exemption limits mainly added or eliminated smaller units, the invested amounts only changed slightly.<sup>3</sup>

Since 2002, German enterprises<sup>4</sup> report their international capital links if the direct investment enterprises' balance sheet total exceeds the €3 million reporting threshold. The reporting forms are available on the Bundesbank's website: http://www.bundesbank.de/index.en.php.

*Until 2006* **indirect** participating interests had to be reported if a "dependent" investment enterprise<sup>5</sup> had a stake of 10% or more in another enterprise. The diagram illustrates the main rules. Information on the participating interests in the enterprises in the boxes outlined in bold had to be reported; the participating interests in enterprises B and E were considered to be direct and those in enterprises F, G, J, K, L and M were considered to be indirect.

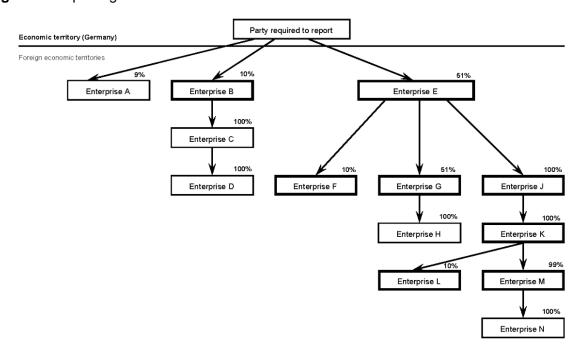


Figure 1: Reporting scheme until end of 2006:

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Up to 2006: A direct investment enterprise is classed as "dependent" if the investor holds more than 50% of the shares or voting rights. If a "dependent" enterprise holds a 100% participating interest in another enterprise, then this enterprise and any additional enterprise fulfilling the condition of a 100% participating interest are also regarded as "dependent".

Internal Bundesbank investigations conducted by the department responsible for collecting data on direct investment stocks have confirmed this.

In the case of German foreign direct investment, it is the resident investors which are subject to reporting requirements; in the case of non-resident direct investors in Germany, this duty falls to the resident (direct) investment enterprises. Where indirect participating interests in Germany are affected, they are reported by the resident direct investment enterprises. To a large extent, and pursuant to the provisions currently in force, the rules governing the classification and content of reports apply equally to both sides. One significant remaining difference is that shares and voting rights held by affiliated investors from foreign economic territories are consolidated. Affiliated investors are those which have come together specifically to establish the investment enterprise, which pursue economic interests jointly by holding participating interests in one or more enterprises or who are closely related to each other (directly related by blood or marriage) or are connected with each other as defined in section 15 of the Companies Act (Aktiengesetz).

From end of 2007 on reporting requirements have been changed with regard to **indirect** participating interests. Now all indirect majority stakes held through dependent enterprises are recorded and condidered to be "dependent", while minority stakes held through dependent enterprises are not subject to the reporting requirements any more.

The following diagrams illustrate the new reporting scheme. In principle the possibility of direct or indirect control (majority stake) drives the reporting requirements. Information on the participating interests in the enterprises in the boxes outlined in bold have to be reported. Green shaded boxes represent stakes that are now newly implied; red shaded boxes are examples for stakes that ceased to be included in the statistics.

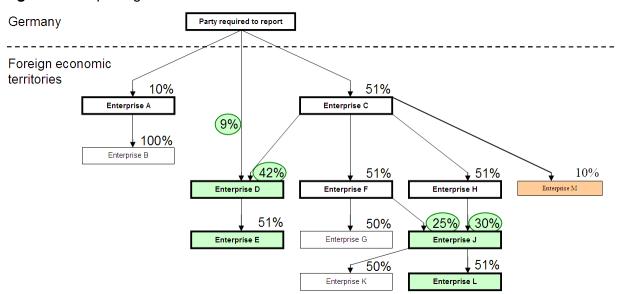
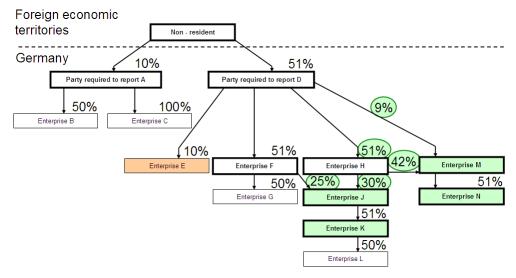


Figure 2a: Reporting scheme German outward FDI 2007 on

Figure 2b: Reporting scheme German inward FDI 2007 on



## 2 The Microdatabase

#### 2.1 General information

There are two dimensions in the MIDI. The rows represent the individual reports (annual accounts and indicators) while the columns display the variable features noted. The MIDI includes reports from 1989 and later. Reports up to and including those from 1995 are anonymised in a way that it is impossible to track individual enterprises over time. Nevertheless, the process by which this occurs will always assign an enterprise the same notional reporting number if it occurs more than once during a year. From 1996 and later the data is anonymised as well, but companies can be traced over time using their company codes. Hence, from 1996 the MIDI is a panel dataset.

#### 2.2 Variables

Information about the codes (variable names) used for individual variables in the database can be found in the corresponding table in the annex. The reporting forms for collecting data on foreign investment stocks are designed so that the same code generally denotes the amount in both directions (K3: outward FDI and K4: inward FDI).

When creating the database, the variable names from the "original" direct investment stock statistics have been remained. Some specialities originating from that are described below. These are offset by the opportunity to "speak the same language" as the business unit in the Statistics department responsible. Variables which are included in the reports, but which have no bearing on the scientific analysis, were removed from the database. The "Modifications" section provides more details on this and other changes to the raw data.

## 2.3 Specifics

### Variables with the suffixes "a" and "b"

The reporting forms used for the direct investment stock statistics have three columns for balance sheet figures. The first refers to the specific investment enterprise. Column two is used to specify how much of the total (column one) should be attributed to the direct investor. In other words, it contains data regarding the direct investment enterprise. Column three only contains details of indirect participating interests. It is used to record the share of the total amounts (column one) which is attributable to the respective direct participant.

Column one contains more fields than columns two and three. If details are required, for which the data from column one are available but which do not require an entry in column two or three, these can be calculated using the appropriate capital share. If variables derived in this manner are to be assigned to column two (three) then an "a" ("b") is appended to the variable name from column one.

#### Variables with the suffixes "1" and "2"

Unfortunately, there is no standard naming convention for variables with numerical suffixes. Refer to the variable list in the appendix for a more detailed description. Generally speaking, for pre-calculated variables of primary FDI (e.g. pdu1/2) the suffixes 1 and 2 indicate whether the DI enterprise is a dependent holding company (suffix 2) or not (suffix 1). For secondary direct investments (e.g. pdm1/2) they indicate whether these investments are held through dependent holding companies (suffix 1) or via non-holding companies (suffix 2).

For variables concerning legal form (*re...*), economic sector (*br...*), federal state (*lz...*) or reporting number (*nu...*), the system used is not entirely standardised. The variables for sector groups (*bgr...*) which are generated subsequently follow the pattern for sectors. On form K3, the variables ending in "1", ie *re1*, *br1*, *bgr1*, *lz1* and *num* (not *nu1*, unfortunately) always designate the German institutions subject to reporting requirements. Variables ending in "2", ie *re2*, *br2*, *bgr2*, *lz2* and *nu2* refer to the investment enterprise which is being reported and on which all balance sheet data in the report are therefore based.

The classification on form K4 is in complete contrast to the method used in form K3. For the direct subsidiaries of foreign enterprises, classification is a simple matter, as they are both subject to reporting requirements and investment enterprises. However, the identical number is only entered in *num* and *nu2*. Redundant entries are not used for the other variables (*re2*, *br2*, *bgr2*). In these cases, the corresponding value can only be found in *re1*, *br1* and *bgr1*. For secondary direct investment, classification on form K4 initially matches that on form K3. Details regarding (resident) institutions required to report end in "1", those regarding the enterprise being reported end in "2".

To create a uniform structure for analysing all investment enterprises on form K4, it must be possible to address the indirect participating interests in the same way as the direct participating interests. The assessment criterion typ (type) allows us to do this. Direct participating interests are classified as typ = 1, indirect interests as typ = 2. To enable us to evaluate the direct and indirect participating interests together, we swap the content of all variables for direct participating interests ending in "1" and "2". Reports modified in this way are labeled as typ = 3. They are shown as if they were primary direct investments, as the investment enterprise is now reported using variables ending in "1". Type  $t = 2^6$  is hidden for the purposes of the analysis, which is then able to treat secondary (type 3) and primary (type 1) direct investment equally. If data exist in variables ending in "2", the report will detail an indirect participating interest and the data in the fields ending in "2" will correspond to those of the institution required to report (ie basically the resident direct investment enterprise). If there are no data in fields ending in "2" (except t = 1), then it is a report by a primary direct investment enterprise.

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<sup>&</sup>lt;sup>6</sup> Type 2 reports were therefore removed from the database.

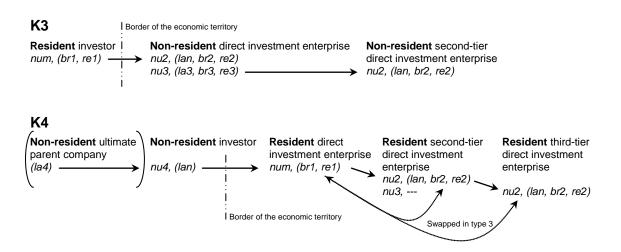
#### The lan variable

The variable *lan* denotes the country where either the investment enterprise (for German direct investment abroad) or the foreign investor (for foreign direct investment in Germany) is based.

## Variables ending in "3" and "4"

Besides *nu3* (from 1999), variables ending in "3" exist only on form K3 and those ending in "4" only on form K4. The suffix "3" relates to the "third enterprise" (*re3*, *la3*, *br3*, *bgr3* and *nu3*). In the chain, this identifies the respective immediate investor (ie a second-tier subsidiary holding a participating interest in a third-tier subsidiary). Only *nu3* is used on form K4, even though it might also be useful to have details about a "third enterprise's" legal form and the economic sector to which it belongs.

Variables ending in "4" on form K4 refer to the foreign investors (nu4) or their ultimate parent company (la4). The parent company of the foreign investor investing in Germany may be domiciled abroad. The parent company is actually behind the direct investment and therefore its home country is of interest. The value is saved in la4. If there is no such parent company or if it is domiciled in the same country as the parent organisation, then lan = la4.



## Sector variables ending in "k"

For resident holding companies, the variables *brk* and *bgrk* denote the sector or sectoral group to which the group belongs. For example, a holding company that conducts the majority of its economic activity in insurance would be assigned to the insurance sector in *brk* and to holding companies in *br1*. Records here are still very patchy.

#### Variables ending in "d"

The database also contains variables with the suffix "d". These are assets or liabilities which may or may not be counted as direct investment depending on how the latter is defined. Claims on and liabilities to credit institutions are generally considered a part of banking

activities rather than direct investment. Because of the scale of these items, the values observed would result in a complete overestimation of direct investment stocks. Bank loans to a non-bank via a holding company are an exception and are counted as direct investment. For the reasons given, certain variables are recalculated to exclude claims on and liabilities to banks which are not classed as direct investment. This done, the new items (eg p38d) contain only assets or liabilities which constitute direct investment.

#### Consolidated balance sheets

The variable *p43* is used on form K3 to denote that there may be more than one enterprise behind the balance reported. For consolidated balance sheets such as these, values appear for item *p43* which are greater than one. When evaluating quantitative variables this value may be disregarded as it includes the total for all enterprises featured on the balance sheet. When evaluating qualitative variables, the value has to be weighted using the factor *p43* so as to take account of the firms behind the report. It is not at all clear from this whether, for example, all these firms are in fact from the same sector or if they have the same legal form. It is far from certain — indeed more than unlikely — that they are all domiciled in the same country. As such, particular caution is advisable when interpreting consolidated balance sheets.

For some reports, p43 = 0. There are two reasons for this. If a chain of several holding companies is reported, these corporate balance sheets are consolidated by the relevant business unit in the Statistics Department. The entry for the newly-created consolidated balance sheet under item p43 is the original number of balance sheets; a zero is then entered for the original balance sheet (though not consistently).

In addition, the respective business unit in the Statistics Department splits up certain corporate balance sheets. This is always the case if a non-holding company reports a large number of additional secondary participating interests, whose sector or country details differ from those of the parent company. The item "shares in affiliated enterprises" (p13) is also an important criterion used to split up the balance sheet. The remaining non-holding company retains the original value in p43 (generally "1"), a zero is entered in p43 for the deducted holding company balance sheet and the balance sheet type bil = 0.

#### Variables with k

Direct investment enterprises in a foreign economic territory are often reported not by one resident investor, but by several. To avoid duplication, a "divisor" is included for K3 (p45). It specifies the number of participating resident investors required to report. To avoid the risk of duplication mentioned above when adding specific variables (eg the number of employees p05), new corrected variables are constructed by dividing the value used for the original

variable by the divisor. The new variable is designated by adding a "k" to the existing name (eg pk05). This process ensures that the values are distributed evenly among all investors for the purpose stated. In many cases, it is not an economic necessity and merely helps arrive at the correct sum total when adding these variables.

On form K4, the variable p45 is used differently and k items are not calculated in the original database; this is because, for K4, duplication can be avoided (on the mainframe by the business unit in the Statistics Department) by checking the registration number (num).

#### 2.4 Modifications

#### Indicator variables for K4

The k items described above are absent for K4. To ensure that duplicates in aggregates were also easy to exclude on the PC, two flags were added (k4flg und  $k4flg\_geo$ ). k4flg=1 if a new resident investment enterprise reports for the first time, otherwise k4flg=0. Now it is possible to avoid duplicates, for example in the number of employees, by only cumulating values such as these if k4flg=1. This is not sufficient for regional assessments, as investors might come from various countries. For  $k4flg\_geo$ , we proceed as follows: the variable takes the value 1 once for each country which is home to investors in a particular investment enterprise. In all other cases,  $k4flg\_geo=0$ . By so doing, the German investment enterprise's code numbers can be assigned in full to each country which is home to at least one investor. The relevant business unit in the Statistics Department follows this same procedure when conducting regional analyses.

However, aggregation using the flags is not permitted for all database variables. It may be used for all variables that have corresponding k items. Many variables already take account of the participation ratios (ie all variables with suffixes "a" and "b" and all variables calculated using them, such as *pdu*, *pdm1* etc.

#### Variables with k for K4

Besides the option of flags, the k items on form K4 were generated in such as way as to contain the starting item's value weighted by the respective degree of participation. It is not broken down according to the number of investors, as for K3. Instead, the proportional amount resulting from the degree of participation is always assigned to a direct investment enterprise's reports.<sup>8</sup> This makes it possible to avoid duplication and to obtain the correct<sup>9</sup> totals by adding the *k* variable values. However, *this* procedure does not make it possible to

With the exception of pk40, these are multiplied by 100 in the original database. This has already been adjusted in the value used here.

<sup>&</sup>lt;sup>8</sup> Applies to pk04, pk05, pk08, pk11, pk12, pk22, pk23, pk29, pk30, pk31, pk32, pk40.

However, this only accounts for part of the total that is attributable to foreign investors which are required to report and which hold the participating interest in accordance with their share in the capital. As there may also be foreign capital suppliers and resident capital suppliers which are not required to report, the enterprises' figures are not always fully included when aggregating under this procedure.

reproduce the results of the responsible business unit in the Statistics Department because it takes a different approach, as detailed above.

## Use of p43 for K4

The original p43 data from the direct investment stock statistics is not used on form K4. It was therefore possible to use p43 to determine the number of foreign investors in the enterprise required to report for K4. <sup>10</sup>

#### Indicator variables for K3

Sometimes it is useful to have a flag on form K3 which only displays an investment enterprise once a year. A new variable was created for this purpose (k3flg). k3flg = 1 if a new, second report number (nu2) appears in the database (sorted by year and investment enterprise), otherwise k3flg = 0. One possible application for this flag is for queries regarding how direct investment is distributed. Examples include breaking down direct investment enterprises by size, legal form, sector etc. Simply using the initial variables would result in duplication. It is not possible to use the k variables either, however, as they are obtained by taking the initial values and either dividing by the divisor (K3) or multiplying by the degree of participation (K4). Using these values would, therefore, result in duplication of values that are too small. 11

#### Taking account of the "directional principle"

To allow the direct investment stocks to be calculated according to the "directional principle" (variables dpu, dpum1, dpm1 and dpm2) the investment enterprise's loans to and claims on the respective institution holding the participating interest have to be deducted from the direct investment stocks as calculated according to Bundesbank criteria (pdu, pdum1, pdm1 and pdm2). First, variables p16d and p20d (which are not included in the original database) must be generated, as variables p16 and p20 might contain interbank claims which are not regarded as direct investment.

#### Reducing the storage space required

Balance sheets that cannot be evaluated are assigned the balance sheet type bil = 0 in the original database. These reports were deleted. Reports on indirect participating interests are, as already indicated, a source of redundancy on form K4. Given that all the data on

This information is contained in p45 on form K3; on form K4, p45 is used for indirect secondary loans.

Here is a simple example to demonstrate the problem. Assume that four investors each hold a 25% stake in an enterprise with 10,000 employees. A direct evaluation of p05 would result in the 10,000 being counted four times. Using pk05 would mean counting four lots of 2,500 employees. On aggregate, that is correct, as four times 2,500 equals 10,000. Neither of these is suitable for sorting by turnover size. The flag accesses p05 directly and only once, counting only one lot of 10,000 employees.

<sup>&</sup>lt;sup>12</sup> A version which includes these reports is available, however, and may be used.

secondary direct investment exist in duplicate in the database (as type 2 and again as type 3), the initial values not required for the analysis were deleted from the database (type 2).

## Variables for the degree of participation

Variables bg1 and bg2 from the original files include the degree of participation in prescribed, discrete size classes. These variables were deleted and replaced by others named bgu, bgm and bg, for which the degree of participation for primary (bgu = p24/p23) and secondary (bgm = p25/p23) direct investment was calculated based on the actual share in nominal capital. bgu records the investors' degrees of primary participation, bgm the direct investment enterprises' degrees of participation in the secondary (or other indirect) participating interests. The variable bg is combination of the other two variables. For direct participating interests it contains the value from bgu and for indirect participating interests that from bgm. These calculations were stopped in 2002, as the Statistics Department was able to supply more reliable values based on the initial currency (ppu and ppm). These values have been calculated retrospectively from 1996 onwards.

#### 2.5 Direct and indirect FDI

The variable balance sheet type (*bil*) exists in the database to allow us to differentiate between direct, indirect and mixed FDI, between direct FDI in holding and non-holding companies and between indirect FDI between such companies via holding and non-holding companies.

## **Direct FDI**

The only inputs used for calculating direct FDI are direct capital and credit relationships. However, direct credit relationships may also occur in indirect participating interests; for example, if the parent company circumvents its subsidiary in granting a loan to its second-tier subsidiary. These are also recorded as direct FDI, depending on how the latter is defined.<sup>13</sup>

If, however, a company is owned both directly and indirectly, the balance sheet type variable (bil) is used to determine the type of capital links and allocate the individual direct investment aggregates. A non-resident enterprise which is owned both directly in Germany and via a holding company which is dependent on Germany is assigned balance sheet type bil=5. If the capital is linked via a dependent non-holding, the enterprise is assigned balance sheet type bil=6. In such cases, only direct capital and credit relationships are regarded as direct FDI.

## Indirect FDI held through dependent holding companies

The item direct FDI also includes direct investment in holding companies. These are often only founded so as to establish, take over or take an interest in other (production) enterprises in that country or other third countries. These activities by the holding company are interpreted as indirect FDI by its parent company and are recorded separately from other indirect FDI relationships. This is done so that they can be analysed together with direct FDI at a later date. In essence, the holding company is used as a conduit.

## Direct and indirect FDI (consolidated)

This is the (consolidated) total of direct and indirect FDI held through holding companies. Consolidation means deducting the direct FDI attributable to the dependent holding company from total direct FDI as, otherwise, the former would be counted twice. In other words, the direct FDI in holding companies is exchanged for those companies' own investment. The data record contains variables (*pbum1*, *pdum1* and *dpum1*) which themselves include the consolidated total of direct FDI and indirect FDI held through dependent holding companies.

#### Other (other indirect) FDI

Secondary FDI held through non-holding companies are termed "other corporate assets in foreign economic territories". This indirect FDI cannot be combined with the above mentioned consolidated sum of direct and indirect FDI because it would require consolidation of the investment relationships which, in turn, would necessitate consolidation of the entire balance sheet. That is more likely to obscure the regional and, above all, sectoral structure of direct investment relationships than to elucidate them.

#### 2.6 Data prior to 1989

Records for direct investment stocks date back to 1976. There are two distinct types of data. Data available from 1989 onwards are standardised and systematic. They are continually maintained by the relevant business unit in the Statistics Department and updated to reflect the format of the latest reporting form. This means that for this entire period, each variable can be addressed using the same name, even if the extent of the data collected and, consequently, the way they are assigned to specific variable names has changed over time. This is not the case for data collected between 1976 and 1988. They constitute a work area in their own right which was finally discontinued by the business unit in the Statistics

However, this only applies to holding companies with direct participating interests which they are required to report. If a holding company is not more than 50%-owned by a resident, a dependent holding company only holds participating interests below the reporting threshold or only holds participating interests outside its own sphere of economic activity, then direct FDI in these holding companies is retained in the consolidated total.

From 2004 the consolidated sum can be calculated using an easy formula (e.g. pdum1 = pdu1 + pdm1). Before, when calculating totals using the formula pdum1 = pdu + pdm1, it must be verified whether bil ≠ 2 in order to prevent for the above mentioned double counting.

Department in 1999. Since then, the data have not been maintained and their structure renders them incomparable with post-1988 data. One contributing factor is that the balance sheet items were weighted using the corresponding degree of participation and the reported values were then overwritten with the newly-calculated amounts. K3 data, as a consequence, did not require any "k" variables or a divisor. The data themselves, however, no longer contained any information about the total reported value.

The main difference in terms of the data is that debts to affiliated enterprises have only been included since 1989. This alone resulted in an increase in foreign participation in Germany of around DM28 billion in 1989, for example, and of DM9 billion in German participation abroad. Furthermore, prior to 1989, both forms contained values that were not assigned to a region. On form K4, this is because no country codes were recorded in the case of indirect FDI. In addition, for indirect FDI, form K4 does not distinguish between whether the direct subsidiary is a holding company or not. As a result, it is not possible to generate a consolidated total of direct and indirect FDI held through dependent holding companies for the period prior to 1989. Furthermore, the totals were not broken down precisely for mixed (indirect and direct) subsidiaries; instead this was done in steps of 0, 0.25, 0.33, 0.5, 0.67, 0.75 and 1.0.

As well as potential difficulties with implementation and comparability, the main reason for omitting data for the years 1976 – 1988 was the discontinuation of work on this particular time horizon.

## 3 Confidential nature of individual statistics

When evaluating the direct investment stock statistics, care must be taken to ensure the confidentiality of individual statistics. As the data has not been factually anonymised it may frequently be possible to associate the data with the individual party required to report based on parameter values as well as sector-specific and geographical characteristics. In publications, it is therefore necessary to mask values composed of fewer than three data elements. Furthermore, at least one additional component must be masked if an aggregate and all its components are to be published *and* one of the components is considered confidential for the reason outlined above. Otherwise, it would be possible to calculate the masked value by differencing. In addition, any statistical value which is dominated by a single report should also be masked. There is, however, no rule prescribing an upper limit for the preponderance of a single report in an aggregate above which the statistic should be kept confidential.

It is also necessary to consult with the relevant business unit in the Statistics Department to prevent the publication of data which had to be masked in a previous publication. As such, research papers must be presented to the relevant business unit in the Statistics Department before publication to ensure that confidential personal data have not been (accidentally)

included. Generally speaking the corresponding rules issued by the Statistics Department have to be followed when working with the database. These include working with the MiDi data only on site at Bundesbank Central Office in Frankfurt and signing a formal agreement to keep individual data confidential before accessing the database.

## **Appendix**

## Calculation of FDI stock figures

The direct investment stocks are calculated from the database as the total of (indirect) (direct) the attributable nominal capital share p24 p25 plus attributable share of Capital reserves p29a p29b p45 16 until 2007 p44 since 2009 <sup>17</sup> p53a p53b Revenue reserves p30a p30b Profit carried forward p31a p31b Profit for the financial year<sup>18</sup> p32a p32b minus attributable share of Amount not backed by own funds p22a p22b Subscribed capital unpaid p09 p10 equals Equity capital pbu1/2 pbm1/2 plus p38d 20 Debts<sup>19</sup> to shareholders or p37d <sup>21</sup> p36d <sup>22</sup> affiliated enterprises Loan capital equals Direct investment stock (Bundesbank method) pdu1/2 pdm1/2 minus Loans to shareholders / affiliated enterprises / enterprises p15d p16d linked with the party required to report through participating Claims on affiliated shareholders / enterprises and on p19d p20d enterprises linked with the party required to report through participating interests. Reverse loan capital eguals Stock of direct investment (IMF/OECD method) dpu1/2 dpm1/2

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Only present in the database for foreign direct investment in Germany. On the other side, variable *p45* is used differently.

Only used for German foreign direct investment.

Profit for the year and balance sheet profit include other amounts that still have to be distributed. Any losses carried forward, annual losses or accumulated losses should be deducted.

<sup>19</sup> Credit relationships between credit institutions are not included in the calculation unless they are secondary loans.

<sup>&</sup>lt;sup>20</sup> Direct debts from the shareholder.

Direct debts from other affiliated enterprises outside of Germany (K4)/in Germany (K3).

<sup>&</sup>lt;sup>22</sup> Debts from dependent enterprises to other participating interests required to report.

## **Variables**

| Variable                  | Denotes  | Label          |
|---------------------------|--|----------------|
| jhr                       | Year   | <u> </u>       |
| art                       | K3 / K4  | art            |
| k3flg                     | K3: 1 if new <i>nu2</i> (one per investment enterprise)  | _              |
| k3flg_inl                 | K3: 1 if new <i>num</i> (one per resident investor)  | _              |
| k4flg                     | K4: 1 if new <i>num</i> (one per investment enterprise) K4: 1 if new <i>num</i> and new <i>lan</i> (one per country and investment enterprise) | _              |
| k4flg_geo<br>k4flg_ausl   | K4: 1 if new <i>nu4</i> (one per foreign investor)   | _              |
| num                       | Number of the party required to report   |                |
| nu2                       | Number of the investment enterprise  | _              |
| nu3                       | Number of the 'third' enterprise (K3 and, from 1999 onwards, K4)   | _              |
| nu4 <sup>23</sup>         | Number of the foreign investor (K4 only)   | _              |
| dpu <sup>24</sup>         | Direct FDI (directional principle); 2004 on: <i>dpu1</i> + <i>dpu2</i>   | _              |
| dpu1 <sup>24</sup>        | 2004 on: Direct FDI (dp) in non-holding companies ( $bil \neq 2$ )   | _              |
| dpu2 <sup>24</sup>        | 2004 on: Direct FDI (dp) in dependent holding companies ( $bil = 2$ )  | _              |
| dpum1 <sup>24</sup>       | Consolidated sum of FDI (dp); 2004 on: dpu1 + dpm1   | _              |
| dpm1 <sup>24</sup>        | Indirect FDI if $bil = 3$ or 5 (dp)  | _              |
| dpm2 <sup>24</sup>        | Indirect FDI if $bil = 4$ or 6 (dp)  | _              |
| ,<br>pdu                  | Direct FDI; 2004 on: pdu1 + pdu2   | _              |
| pdu1                      | 2004 on: Direct FDI in non-holding companies (bil ≠ 2)   | _              |
| pdu2                      | 2004 on: Direct FDI in dependent holding companies (bil = 2)   | _              |
| pdum1                     | Consolidated sum of FDI (BBK); 2004 on: pdu1 + pdm1  | _              |
| pdm1                      | Indirect FDI if <i>bil</i> = 3 or 5  | _              |
| pdm2                      | Indirect FDI if <i>bil</i> = 4 or 6  | _              |
| pbu                       | As pdu, but only participating interests (excl. loans); 2004 on: pbu1 + pbu2   | _              |
| pbu1                      | 2004 on: <i>pbu</i> in non-holding companies ( <i>bil</i> ≠ 2)   | _              |
| pbu2                      | 2004 on: <i>pbu</i> in dependent holding companies ( <i>bil</i> = 2)   | _              |
| pbum1                     | As <i>pdum1</i> , but participating interests only; 2004 on: <i>pbu1</i> + <i>pbm1</i>   | _              |
| pbm1                      | As <i>pdm1</i> , but participating interests only  | _              |
| pbm2                      | As <i>pdm2</i> , but participating interests only  | _              |
| typ                       | K4: 1=direct, 3=indirect   | _              |
| bil 25                    | Balance sheet type   | bilanzart      |
| lan <sup>25</sup>         | Country of the investment enterprise (K3) / investor (K4)  | land           |
| la3 <sup>25</sup>         | Country of the 'third' enterprise (K3 only)  | land           |
| la4 <sup>25</sup>         | K4: Country of the ultimate parent   | land           |
| br1                       | Sector of the party required to report (K3) / investment enterprise (K4)   | branche        |
| bgr1 <sup>25</sup>        | Sectoral grouping of the party required to report (K3) / investment enterprise (K4)  | bgr            |
| br2<br>bgr2 <sup>25</sup> | Sector of the investment enterprise (K3) / party required to report (K4)   | branche        |
| byi2<br>br3               | Sectoral grouping of the investment enterprise (K3) / party required to report (K4)  | bgr<br>branche |
| bgr3 <sup>25</sup>        | Sector of the 'third' enterprise (K3 only) Sectoral grouping of the 'third' enterprise (K3 only)   |                |
| byrs<br>brk               | Sector of the German subgroup (if a holding company) <sup>26</sup>   | bgr<br>branche |
| bgrk <sup>25</sup>        | Sectoral grouping of the German group (if a holding company)   | bgr            |
| re1                       | Legal form of the party required to report (K3) / investment enterprise (K4)   | rechtsform     |
| re2                       | Legal form of the investment enterprise (K3) / party required to report (K4)   | rechtsform     |
| re3                       | Legal form of the 'third' enterprise (K3 only)   | rechtsform     |
| Iz1                       | Up to 2003: Federal state of party required to report (K3) / DI enterprise (K4)  | Izb            |
| Iz2                       | Up to 2003: Federal state of party required to report (K4)   | Izb            |
| bl1                       | 2004 on: Federal state of party required to report (K3) / DI enterprise (K4)   | lzb            |
| bl2                       | 2004 on: Federal state of party required to report (K4)  | lzb            |
| bst                       | Balance sheet date   | _              |
| p04                       | Annual turnover in € thousand  | _              |
| pk04                      | Annual turnover/divisor [K3], *bg [K4]   | _              |
| p05                       | Number of employees (partly estimated)   | _              |
| pk05                      | Number of employees/divisor [K3], *bg [K4]   | _              |
| p08                       | Subscribed capital unpaid  |                |

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For K3 up to 2005 sector of the German group. 2006 on: sector of the German subgroup (K3 and K4).

Not used for type 3.

Own calculations taking account of the subsidiary company's debts to its capital-suppliers.

This variable contains – numerically – the original value of the initial data which is covered by a label in table view (browse or edit). If, for example, lan = 1, then F (for France) is displayed. Please do not use labels in queries because unfortunately that leads to omitted results if labels are not uniquely assigned to the values.

| pk08               | p08 / divisor [K3], *bg [K4]  | _  |
|--------------------|---|----|
| p09; p10           | p08a; p08b  | _  |
| p11                | Fixed and intangible assets   | _  |
| ,<br>pk11          | p11 / divisor [K3], *bg [K4]  | _  |
| p12                | Financial assets  | _  |
| •                  |   |    |
| pk12               | Financial assets/divisor [K3], *bg [K4]   | _  |
| p13                | of which shares in affiliated enterprises/participating interests                                   | _  |
| p14                | until 2008: of which loans to shareholders/affiliated enterprises/enterprises linked with           | _  |
|                    | the party required to report through participating interests; 2009 on: p49 + p50                    |    |
| p15                | until 2008: <i>p14a</i> ; 2009 on: <i>p50a</i>  | _  |
| p16                | until 2008: p14b; 2009 on: p49b   |    |
| p15d; p16d         | Reverse loan capital from <i>p15</i> and <i>p16</i>   | _  |
|                    |   |    |
| p17                | Current assets  | _  |
| p18                | until 2008: of which claims on shareholders/affiliated enterprises and on enterprises               | _  |
|                    | linked with the party required to report through participating interests; 2009 on: <i>p51</i> +     |    |
|                    | p52   |    |
| p19                | until 2008: <i>p18a</i> ; 2009 on: <i>p52a</i>  | _  |
| p20                | until 2008: p18b; 2009 on: p51b   |    |
| p19d; p20d         | Reverse loan capital from <i>p19</i> and <i>p20</i>   | _  |
| p21                | Other assets  | _  |
| •                  |   |    |
| p22                | Amount not backed by own funds  | _  |
| pk22               | p22 / divisor [K3], *bg [K4]  | _  |
| p22a/b             | p22a; p22b  | _  |
| p23                | Subscribed or called-up capital, endowment capital and contributions by partners (ie                | _  |
|                    | nominal capital)  |    |
| pk23               | p23 / divisor [K3], *bg [K4]  | _  |
| p24; p25           | p23a; p23b  | _  |
| p26                | of which contributions from limited partners (of a KG)  |    |
| •                  |   |    |
| p27; p28           | p26a ; p26b   | _  |
| p29                | Capital reserves  | _  |
| pk29               | p29 / divisor [K3], *bg [K4]  | _  |
| p29a/b             | p29a ; p29b   | _  |
| p30                | Revenue reserves  | _  |
| pk30               | p30 / divisor [K3], *bg [K4]  | _  |
| p30a/b             | p30a; p30b  | _  |
| p31                | Profit/loss carried forward   | _  |
| pk31               | p31 / divisor [K3], *bg [K4]  |    |
| •                  |   | _  |
| p31a/b             | p31a; p31b  | _  |
| p32                | Profit and loss for the financial year (after taxes, prior to profit distribution, and              | _  |
|                    | offsetting of losses carried foreward)  |    |
| pk32               | p32 / divisor [K3], *bg [K4]  | _  |
| p32a/b             | p32a; p32b  | _  |
| p33                | Liabilities   | _  |
| p34                | of which liabilities to shareholders/affiliated enterprises/enterprises linked with the part        | v– |
| μσ.                | required to report through participating interests  | ., |
| n25                | of which to such enterprises outside of (K3)/in (K4) Germany  |    |
| p35                |   | _  |
| p36                | p35b  | _  |
| p36d <sup>27</sup> | p36d, ie p35b, which are counted as direct investment   | _  |
| p37                | and such enterprises in Germany (K3)/outside of Germany (K4)  | _  |
| p37d <sup>26</sup> | p37, which are counted as direct investment   | _  |
| p38                | p37a (portion of p37 accounted for by shareholders)   | _  |
| p38d               | p37a, which are counted as direct investment  | _  |
| p39                | Other liabilities (eg accruals for pensions)  | _  |
| p40                | Balance sheet total. In the case of overindebted affiliates (that is if <i>p</i> 23 + <i>p</i> 29 + |    |
| μ40                |   | _  |
|                    | p30 + p31 + p32 < 0) $p40$ is reduced by the amount of negative equity in order to                  |    |
|                    | passivate over-indebtness.  |    |
| pk40               | p40 / divisor [K3], *bg [K4]  | _  |
| p43                | Number of investment enterprises included in report (K3)  | _  |
|                    | Number of foreign investors (K4)  |    |
| pk43               | <i>p43</i> / divisor (K3), * <i>bg</i> (K4)   | _  |
| p44                | Direct secondary loan   | _  |
| p45                | K3: divisor (number of participating German investors),   | _  |
| ۲.۵                | K4: indirect secondary loan <sup>28</sup>   |    |
|                    | Ten manoot occorrainy loan  |    |

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Virtually never occurs on K3, occurred 12 times 1989-1999 on K4.

ltems p37d and p38d are calculated so that the value accounted for in p38d is factored out of item p37d. This ensures that the two items do not overlap. In other words, p38d includes only the direct debts to shareholders outside of Germany and p37d only those to other affiliated enterprises (in the respective foreign country).

| n 17        | Dranartianata aquity capital at market values  |         |
|-------------|--|---------|
| p47         | Proportionate equity capital at market values  | _       |
| p48         | 2004 on: Extraordinary income  | _       |
| p48 a/b     | 2004 on: <i>p48a</i> ; <i>p48b</i>   | _       |
| p49         | 2009 on: p13 of which loans to shareholders/affiliated enterprises/enterprises linked            | _       |
|             | with the party required to report through participating interests non-resident (K3)/             |         |
|             | resident (K4) in Germany.  |         |
| p50         | 2009 on: p13 of which loans to shareholders/affiliated enterprises/enterprises linked            | _       |
| •           | with the party required to report through participating interests resident (K3)/ non-            |         |
|             | resident (K4) in Germany.  |         |
| p50d        | Reverse loan capital from <i>p50</i>   | _       |
| p50a<br>p51 | 2009 on: <i>p17 of which</i> claims on shareholders/ affiliated enterprises and on enterprises   | `       |
| μυτ         |  |         |
|             | linked with the party required to report through participating interests non-resident (K3)       | /       |
|             | resident (K4) in Germany.  |         |
| p52         | 2009 on: p17 of which claims on shareholders/ affiliated enterprises and on enterprises          | s —     |
|             | linked with the party required to report through participating interests resident (K3)/          |         |
|             | non-resident (K4) in Germany.  |         |
| p52d        | Reverse loan capital from p52  | _       |
| ,<br>p53    | 2009 on: accumulated other comprehensive income (if balanced in accordance with                  | _       |
| 1           | international accounting principles, K3 only)  |         |
| p53a/b      | p53a; p53b   | _       |
| p54         | 2009 on: <i>p13a</i>   | _       |
|             |  |         |
| p55         | 2009 on: p13b  | _       |
| bgu/m       | Degree of participation in direct/indirect FDI   | _       |
| рри/т       | 1996 on: Degree of participation calculated from the original balance sheet (national            | _       |
|             | currency)  |         |
| bg          | Until 2002, degree of participation = bgu/m, thereafter = ppu/m                                  | _       |
| pdbw        | 2001 on: If appropriate: proportionate equity capital at market values (p47) plus debts          | _       |
|             | to the investment enterprise; else pbu (field is always filled)                                  |         |
| pm1         | 2001 on: all direct K3 outside Germany (including holding companies)                             | _       |
| pm2         | 2001 on: all direct K4 in Germany  | _       |
| pm4         | 2002 on: German investor's balance sheet total   | _       |
| pm5         | 2002 on: German investor's turnover in €thousand   | _       |
| pm6         | 2002 on: German investor's number of employees   |         |
| •           |  | _       |
| pm7         | 2002 on: balance sheet total of the corporate group (German UO, if applicable)                   | _       |
| pm8         | 2002 on: turnover of the corporate group (German UO, if applicable)                              | _       |
| pm9         | 2002 on: number of employees of the corporate group (German UO, if applicable)                   | _       |
| pm10        | 2002 on: flag for <i>pm7</i> , <i>pm8</i> , <i>pm9</i> :   | _       |
|             | 0 if pm7-9 figures from consolidated financial statement of resident UO (=first best);           |         |
| or          | 1 if pm7-9 figures from individual financial statement of UO; UO is non-holding                  |         |
|             | 2 if pm7-9 figures from individual financial statement of UO; UO is holding company              |         |
| ubf         | 3 if reporting unit is private individual  |         |
|             | 4 if pm7-9 figures from consolidated financial statement of a corporate sub-group of the         | Э       |
|             | resident UO (=second best)   |         |
| em1         | 2005 on: mode of entry for the <i>reporting unit</i>   | _       |
| 0           | 1 – greenfield creation; (K4 only)   |         |
|             | 2 – merger & acquisition or brownfield take-over; (K4 only)                                      |         |
|             |  |         |
|             | 3 – exemption limits exceeded first time; (K4 only)  |         |
| 0           | 0 – existing previously  |         |
| em2         | 2005 on: mode of entry the <i>DI enterprise</i>  | _       |
|             | <ul><li>1 – new establishment / greenfield; (K3 and rep. unit of secondary K4)</li></ul>         |         |
|             | <ul><li>2 – merger / acquisition / take-over; (K3 and rep. unit of secondary K4)</li></ul>       |         |
|             | <ul> <li>3 – exemption limits exceeded first time; (K3 and rep. unit of secondary K4)</li> </ul> |         |
|             | 0 – existing priviously  |         |
| bif         | 2005 on: balance sheet flag  | _       |
|             | 0 - German national accounting   |         |
|             | 1 – International accounting (UŠ-GAAP, IFRS,)  |         |
|             | 9 – (so far) no information available  |         |
| bri         | 2002 on: sector of national UO   | branche |
| fs1         | 2002 on: external identifier of reporting unit (available upon request)                          | _       |
| fs2         | 2002 on: external identifier of DI enterprise (available upon request)                           | _       |
| _           |  | _       |
| fsa<br>foi  | 2002 on: external identifier of foreign UO (available upon request)                              | _       |
| fsi<br>for  | 2002 on: external identifier of resident UO (available upon request)                             | _       |
| fsz         | 2002 on: external identifier of intermediate foreign firm (available upon request)               | -       |
| laa         | 2002 on: country of foreign UO   | -       |
| laz         | 2002 on: country of intermediate foreign firm  | -       |
| noa         | 2002 on: identifier of foreign UO  | -       |
| nui         | 2002 on: identifier of resident UO   | -       |
| ubo         | 2002 on: UO flag: see table on page 28   | _       |
|             |  |         |

| noz | 2002 on: identifier of foreign intermediate firm         | _ |
|-----|--|---|
| lam | 2002 on: new country of DI enterprise (reserve position) | _ |
| Ino | 2002 on: new country of investor (reserve position)      | _ |
| wae | Currency of denomination of original report              | _ |

## **Countries**

| Code                 | Country                                  | Country label* |
|----------------------|--|----------------|
| Europe an            | d CIS                                    |                |
| 000                  | DM                                       |                |
| 888                  | EUR                                      |                |
| 1                    | France (including Monaco)                | F              |
| 2/102/17             | Belgium                                  | В              |
| 3                    | Netherlands                              | NL             |
| 4/104/18             | Luxembourg                               | LUX            |
| 5                    | Italy                                    | l .            |
| 6                    | United Kingdom                           | GB             |
| 7                    | Ireland                                  | IRL            |
| 8                    | Denmark                                  | DK<br>CB       |
| 9<br>10              | Greece                                   | GR<br>P        |
| 10<br>11             | Portugal<br>Spain                        | F<br>E         |
| 21/202               | Canary Islands                           | Ē              |
| 21/202               | Ceuta and Melilla                        | Ē              |
| 24                   | Iceland                                  | IS             |
| 25/41                | Faroe Islands                            | DK (FR)        |
| 27                   | Svalbard                                 | N (SVA)        |
| 28                   | Norway                                   | N              |
| 30                   | Sweden                                   | S              |
| 32                   | Finland                                  | FIN            |
| 36                   | Switzerland (including Buesingen and FL) | CH             |
| 37                   | Liechtenstein                            | FL             |
| 38                   | Austria                                  | Α              |
| 39                   | Switzerland                              | CH             |
| 43                   | Andorra                                  | AND            |
| 44                   | Gibraltar                                | GB (GBZ)       |
| 45                   | Vatican City                             | SCV            |
| 46                   | Malta                                    | M              |
| 47                   | San Marino                               | RSM            |
| 48                   | Yugoslavia (until 1990)                  | YU alt         |
| 52<br>53             | Turkey                                   | TR             |
| 53<br>54             | Estonia<br>Latvia                        | EST<br>LV      |
| 5 <del>4</del><br>55 | Lithuania                                | LV<br>LT       |
| 56                   | Former Soviet Union (until 1991)         | SU             |
| 60                   | Poland                                   | PL             |
| 61                   | Czech Republic                           | CZ             |
| 62                   | Former Czechoslovakia                    | CZ alt         |
| 63                   | Slovak Republic                          | SK             |
| 64                   | Hungary                                  | Н              |
| 66                   | Romania                                  | RO             |
| 68                   | Bulgaria                                 | BG             |
| 70                   | Albania                                  | AL             |
| 72                   | Ukraine                                  | UA             |
| 73                   | Belarus                                  | BY             |
| 74<br>75             | Moldova                                  | MD             |
| 75<br>70             | Russian Federation                       | RUS            |
| 76<br>77             | Georgia                                  | GE             |
| 77<br>70             | Armenia                                  | AR             |
| 78<br>79             | Azerbaijan<br>Kazakhatan                 | AZ<br>KZ       |
| 79<br>80             | Kazakhstan<br>Turkmenistan               | KZ<br>TM       |
| 81                   | Uzbekistan                               | UZ             |
| 82                   | Tajikistan                               | 7J             |
| 83                   | Kyrgyzstan                               | KS             |
| 90                   | Yugoslavia                               | YU alt         |
| 91                   | Slovenia                                 | SLO            |
| 92                   | Croatia                                  | HR             |
| 93                   | Bosnia-Herzegovina                       | BIH            |
| 94                   | Yugoslavia                               | YU             |

| 96         | Macedonia   | MK                   |
|------------|---|----------------------|
| 97         | Montenegro  | ME                   |
| 99         | Serbia  | RS                   |
| 107        | Guernsey  | GB (GBG)             |
| 108<br>109 | Jersey<br>Isle of Man                                 | GB (GBJ)<br>GB (GBM) |
| 109        | isie oi iviari  | <u> </u>             |
| Africa     |   |                      |
| 204        | Marocco   | MA                   |
| 208        | Algeria   | DZ                   |
| 212        | Tunisia   | TN                   |
| 216        | Libyan Arab Jamahiriya                                | LAR                  |
| 220<br>224 | Egypt<br>Sudan  | ET<br>SUD            |
| 228        | Mauritania  | RIM                  |
| 232        | Mali  | RMM                  |
| 236        | Burkina Faso  | BF                   |
| 240        | Niger   | RN                   |
| 244        | Chad  | TCH                  |
| 247        | Cape Verde  | CV                   |
| 248        | Senegal   | SN                   |
| 252        | Gambia  | WAG                  |
| 257        | Guinea-Bissau   | GNB                  |
| 260        | Guinea  | RG                   |
| 264<br>268 | Sierra Leone<br>Liberia                               | WAL<br>LB            |
| 272        | Côte d'Ivoire   | CI                   |
| 276        | Ghana   | GH                   |
| 280        | Togo  | RT                   |
| 284        | Benin   | DY                   |
| 288        | Nigeria   | WAN                  |
| 302        | Cameroon  | CAM                  |
| 306        | Central African Republic                              | RCA                  |
| 310        | Equitorial Guinea                                     | GQ                   |
| 311        | Sao Tome and Principe                                 | STP                  |
| 314<br>318 | Gabon   | G<br>RCB             |
| 322        | Congo Democratic Republic of Congo (formerly Zaire)   | ZRE                  |
| 324        | Rwanda  | RWA                  |
| 328        | Burundi   | BU                   |
| 329        | St Helena   | GB (STH)             |
| 330        | Angola  | ANĠ                  |
| 334        | Ethiopia  | ETH                  |
| 336        | Eritrea   | ER                   |
| 338        | Djibouti  | DJI                  |
| 342        | Somalia   | SP                   |
| 346<br>350 | Kenya<br>Uganda                                       | EAK<br>EAU           |
| 352        | Tanzania  | EAT                  |
| 355        | Seychelles  | SY                   |
| 357        | Chagos Archipelago (British Indian Ocean Territory)   | GB (TGS)             |
| 366        | Mozambique  | MOC                  |
| 370        | Madagascar  | RM                   |
| 372        | Réunion   | F (REU)              |
| 373        | Mauritius   | MS                   |
| 375        | Comoros   | COM                  |
| 377        | Mayotte   | F (MAY)              |
| 378<br>382 | Zambia<br>Zimbabwe                                    | Z<br>ZW              |
| 382<br>386 | Zimbabwe<br>Malawi                                    | ∠vv<br>MW            |
| 388        | South Africa  | ZA                   |
| 389        | Namibia   | NAM                  |
| 390        | The Republic of South Africa and Namibia (until 1990) | ZAN                  |
| 391        | Botswana  | RB                   |
| 393        | Swaziland   | SD                   |
| 395        | Lesotho   | LS                   |

| America    |  |                 |
|------------|--|-----------------|
| 400        | United States of America (and Puerto Rico) | USA             |
| 404        | Canada                                     | CDN             |
| 406        | Greenland                                  | DK (GRO)        |
| 408        | St Pierre and Miquelon                     | F (SPM)         |
| 412        | Mexico                                     | MEX             |
| 413        | Bermuda                                    | GB (ABJ)        |
| 416        | Guatemala                                  | GCÀ ´           |
| 421        | Belize                                     | ВН              |
| 424        | Honduras                                   | HN              |
| 428        | El Salvador                                | ES              |
| 432        | Nicaragua                                  | NIC             |
| 436        | Costa Rica                                 | CR              |
| 442        | Panama                                     | PA              |
| 446        | Anguilla                                   | GB (ABJ)        |
| 448        | Cuba                                       | C               |
| 449        | St Kitts and Nevis                         | KAN             |
| 452<br>453 | Haiti<br>Bahamas                           | RH<br>BS        |
| 453<br>454 | Turks and Caicos Islands                   | GB (TAC)        |
| 456        | Dominican Republic                         | DOM             |
| 457        | US Virgin Islands                          | USA (VIRA)      |
| 458        | Guadeloupe                                 | F (GUA)         |
| 459        | Antigua and Barbuda                        | AG              |
| 460        | Dominica                                   | WD              |
| 461        | British Virgin Islands and Montserrat      | GB (VIRM)       |
| 462        | Martinique                                 | F (MAR)         |
| 463        | Cayman Islands                             | GB (CAY)        |
| 464        | Jamaica                                    | JA              |
| 465        | St Lucia                                   | WL              |
| 467        | St Vincent                                 | WV              |
| 468        | British Virgin Islands                     | GB (VIRB)       |
| 469        | Barbados                                   | BDS             |
| 470<br>472 | Montserrat                                 | GB (GBMS)<br>TT |
| 472<br>473 | Trinidad and Tobago<br>Grenada             | WG              |
| 474        | Aruba                                      | NL (ARU)        |
| 478        | Netherlands Antilles                       | NL (NA)         |
| 480        | Columbia                                   | CO              |
| 484        | Venezuela                                  | YV              |
| 488        | Guyana                                     | GUY             |
| 492        | Surinam                                    | SME             |
| 496        | French Guyana                              | F (FGUY)        |
| 500        | Ecuador                                    | EC              |
| 504        | Peru                                       | PE              |
| 508        | Brazil                                     | BR              |
| 512        | Chile                                      | RCH             |
| 516<br>520 | Bolivia                                    | BOL<br>PY       |
| 520<br>524 | Paraguay<br>Uruguay                        | ROU             |
| 528        | Argentina                                  | RA              |
| 529        | Falkland Islands                           | GB (GBF)        |
| <u></u>    |  | 02 (02.)        |
| Asia       |  |                 |
| 600        | Cyprus                                     | CY              |
| 604        | Lebanon                                    | RL              |
| 608        | Syria                                      | SYR             |
| 612        | Iraq                                       | IRQ             |
| 616        | Iran, Islamic Republic of                  | IR              |
| 624        | Israel                                     | IL              |
| 625        | West Bank/Gaza Strip                       | WB              |
| 628        | Jordan<br>Saudi Arabia                     | JOR             |
| 632        | Saudi Arabia                               | KSA             |
| 636<br>640 | Kuwait<br>Bahrain                          | KWT<br>BRN      |
| 644        | Qatar                                      | Q               |
| O 1 T      |  | •               |

| 647          | United Arab Emirates                                 | UAE              |
|--------------|--|------------------|
| 649          | Oman   | OM               |
| 652          | North Yemen  | Y                |
| 653          | Yemen  | Y                |
| 656          | South Yemen  | Y                |
| 660          | Afghanistan  | AFG<br>PK        |
| 662<br>664   | Pakistan<br>India                                    | IND              |
| 666          |  | BD               |
| 667          | Bangladesh<br>Maldives                               | MV               |
| 669          | Sri Lanka  | CL               |
| 672          | Nepal  | NEP              |
| 675          | Bhutan   | BHT              |
| 676          | Myanmar (formerly Burma)                             | MYA              |
| 680          | Thailand   | THA              |
| 684          | Laos   | LAO              |
| 690          | Vietnam  | VN               |
| 696          | Cambodia   | K                |
| 700          | Indonesia  | RI               |
| 701          | Malaysia   | MAL              |
| 703          | Brunei   | BRU              |
| 706          | Singapore  | SGP              |
| 708<br>716   | Philippines<br>Mongolia                              | RP<br>MAU        |
| 720          | China  | VRC              |
| 724          | Korea, Democratic Republic of (formerly North Korea) | KOR              |
| 728          | Korea, Republic of (formerly South Korea)            | ROK              |
| 732          | Japan  | J                |
| 736          | Taiwan   | RC               |
| 740          | Hong Kong  | HK               |
| 743          | Macau  | MAC              |
| Australia ar |  |                  |
| 800          | Australia  | AUS              |
| 801          | Papua New Guinea                                     | PNG              |
| 802<br>803   | Australian Oceania                                   | AUS (AUO)<br>NAU |
| 804          | Nauru<br>New Zealand                                 | NZ               |
| 806          | Solomon Islands                                      | SOL              |
| 807          | Tuyalu   | TUV              |
| 808          | American Oceania                                     | USA (AMO)        |
| 809          | New Caledonia and territories                        | F (NEU)          |
| 810          | American Oceania                                     | UŠA (ÁMO)        |
| 811          | Wallis and Futuna                                    | F (WAF)          |
| 812          | Kiribati   | KIB              |
| 813          | Pitcairn   | GB (GBP)         |
| 814          | New Zealand Oceania                                  | NZ (NZO)         |
| 815          | Fiji<br>Manuatu                                      | FJI              |
| 816          | Vanuatu  | VAN              |
| 817<br>819   | Tonga<br>Samoa                                       | TON<br>WS        |
| 820          | Northern Mariana Islands                             | USA (OZN)        |
| 822          | French Polynesia                                     | F (FPO)          |
| 823          | Micronesia, Federated States of                      | FSM              |
| 824          | Marshall Islands                                     | MAI              |
| 825          | Palau  | PAL              |
| 834          | Australian Oceania                                   | AUS (AUO (CX))   |
| 837          | New Zealand Oceania                                  | NZ (NZO (CK))    |
| Other        |  |                  |
| 858          | Countries not identified                             | n/a              |
| 890          | Polar regions  | POL              |
| 999          | No data  | n/a              |

## **Economic sectors**

## Individual sectors

| Code        | Sector  |           |
|-------------|---|-----------|
| 100         | Agriculture, hunting and related service activities*  |           |
| 200         | Forestry, logging and related service activities  |           |
| 39          | Agriculture, hunting, forestry and fishing  |           |
| 500         | Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing*                 |           |
| 59          | Electricity, gas, steam and (hot) water supply  |           |
| 67          | Mining of coal (including agglomeration and the manufacture of coke oven products)                              |           |
| 75          | Mining of potassium and rock salt, salines  |           |
| 84          | Extraction of crude petroleum, natural gas  |           |
| 92          | Mining of metal ores, other mining, extraction of peat  |           |
| 1000        | Mining of coal and lignite, extraction of peat  | *         |
| 1100        | Extraction of crude petroleum and natural gas, service activities incidental to oil and gas extraction          | n         |
| 112         | Manufacture of chemicals and chemical products  |           |
| 117         | Manufacture of refined petroleum products   |           |
| 1200<br>122 | Mining of uranium and thorium ores  |           |
| 1300        | Manufacture of plastic products  Mining   |           |
| 1300        | Manufacture of rubber products, retreading and rebuilding of rubber tyres                                       |           |
| 1400        | Mining and quarrying, other mining  |           |
| 1500        | Manufacture of food products and beverages  |           |
| 156         | Mining and manufacturing of rock, stone, and related mineral products   |           |
| 1600        | Manufacture of tobacco products   |           |
| 164         | Quarrying of stone, clay and abrasives  |           |
| 168         | Manufacture and processing of fine ceramics and glass   |           |
| 1700        | Manufacture of textiles   |           |
| 173         | Manufacture of iron and steel   |           |
| 1800        | Manufacture of textile products   |           |
| 181         | Ferrous metal foundries   |           |
| 1900        | Manufacture of leather and leather products   |           |
| 2000        | Manufacture of wood and wood products   |           |
| 204         | Drawing plants, cold rolling mills, secondary transformation of metals, other workshops                         |           |
| 207         | Manufacture of non-ferrous metals, non-ferrous metal foundries  |           |
| 2100        | Manufacture of pulp, paper and paper products*  |           |
| 213         | Manufacture of structural metal products  |           |
| 2200        | Publishing, printing and reproduction of recorded media*  |           |
| 223         | Manufacture of machinery and equipment n.e.c.   |           |
| 227         | Manufacture of office machinery and computers   |           |
| 228         | Manufacture of railway and tramway locomotives and rolling stock  |           |
| 2300        | Manufacture of coke, refined petroleum products and nuclear fuel  |           |
| 230         | Manufacture of motor vehicles including maintenance   |           |
| 235         | Building and repairing of ships   |           |
| 237         | Manufacture of aircraft and spacecraft  |           |
| 2400        | Manufacture of chemicals and chemical products  | (0005 )   |
| 2440        | Manufacture of pharmaceutical products  | (2005 on) |
| 244         | Manufacture of electrical equipment   |           |
| 2500        | Manufacture of rubber and plastic products  Electrical and optical equipment, manufacture of watches and clocks |           |
| 253<br>257  | Manufacture of other fabricated metal products n.e.c.   |           |
| 2600        | Manufacture of other non-metallic mineral products  Manufacture of other non-metallic mineral products          |           |
| 264         | Manufacture of fountain pens and the like, stamps etc   |           |
| 267         | Manufacturing n.e.c.  |           |
| 2700        | Manufacture of basic metals   |           |
| 272         | Manufacture of wood   |           |
| 275         | Wood processing   |           |
| 2800        | Manufacture of metal products   |           |
| 280         | Manufacture of pulp, paper and paperboard   |           |
| 282         | Processing of paper and pulp  |           |
| 285         | Printing and reproduction   |           |
| 2900        | Manufacture of machinery and equipment n.e.c.   |           |
| 3000        | Manufacture of office machinery and computers   |           |

\* NACE Rev. 1 categories used since 1995 (3/4-digit). **Note:** Codes before 1995 are 2/3-digit.

<sup>\*\*</sup> From 2005 on more detailed classification.

| 303                | Manufacture of leather and leather products, footwear  |                           |
|--------------------|--|---------------------------|
| 308<br>3100        |  |                           |
| 314<br>318         | Manufacture of wearing apparel  Manufacture of textile products, upholstery and decoration   |                           |
| 3200               |  |                           |
| 3300               | Manufacture of medical, precision and optical instruments, watches and clocks  |                           |
| 3400               | ,  |                           |
| 343<br>345         | Manufacture of food products  Manufacture of tobacco   |                           |
|                    | Manufacture of other transport equipment   | (up to 2004)              |
| 3510               | Building and repairing of ships and boats  | (2005 on)                 |
| 3520               |  | (2005 on)                 |
| 3530               | Manufacture of aircraft and spacecraft Manufacture of motorcycles, bicycles, invalid carriages   | (2005 on)<br>(2005 on)    |
| 3550               |  | (2005 on)                 |
| 3600               |  | (,                        |
| 3700               | , 0  |                           |
| 399<br><b>4000</b> | Construction Electricity, gas, steam and hot water supply  |                           |
| 404                | Wholesale of refined petroleum products  |                           |
|                    | Collection, purification and distribution of water   |                           |
| 449                | Wholesale trade and commission trade   |                           |
| 4500               |  |                           |
| 496<br><b>5000</b> | Retail trade Sale, repair of motor vehicles; retail sale of automotive fuel  |                           |
|                    | Wholesale trade and commission trade (except of motor vehicles and motorcycles)  |                           |
| 5200               | Retail trade, except of motor vehicles and motorcycles; repair of personal and household good  | ds <sup>*</sup>           |
|                    | Hotels and restaurants   |                           |
| 599<br>6000        | Transport, storage and communication  Land transport; transport via pipelines  |                           |
|                    | Water transport  |                           |
| 617                | Financial intermediation, including insurance  |                           |
|                    | Air transport  |                           |
| 6300               |  | (up to 2004)              |
|                    | Post and telecommunications Post and courier activities  | (up to 2004)<br>(2005 on) |
|                    | Telecommunications Telecommunication Telecommunication Telecommunication Telecommunication Telecommunication Telecommunication Telecommunication Telecommunication Te | (2005 on)                 |
|                    | Deutsche Bundesbank  | , ,                       |
|                    | Other credit institutions  |                           |
|                    | Financial leasing Other financial intermediaries   |                           |
|                    | Investment funds   |                           |
| 6600               | Insurance and pension funding, except compulsory social security   |                           |
|                    | Activities auxiliary to financial intermediation   |                           |
| 695<br>7050        | Insurance enterprises Housing enterprises  |                           |
|                    | Other real estate activities   |                           |
|                    | Renting of machinery and equipment without operator and of personal and household goods  |                           |
| 719                |  |                           |
|                    | Computer and related activities Research and development   |                           |
| 7300               | Management activities of holding companies   |                           |
| 737                |  |                           |
|                    | Other business activities  | (up to 2004)              |
|                    | Legal activities   | (2005 on)                 |
|                    | Accounting, book-keeping and auditing activities; tax consultancy Market research and public opinion polling   | (2005 on)<br>(2005 on)    |
|                    | Business and management consultancy activities   | (2005 on)                 |
| 7420               | Architectural and engineering activities and related technical consultancy**   | (2005 on)                 |
|                    | Technical testing and analysis   | (2005 on)                 |
|                    | Advertising Labour recruitment and provision of personnel  | (2005 on)<br>(2005 on)    |
| 7460               |  | (2005 on)                 |
| 7470               | Industrial cleaning  | (2005 on)                 |
|                    | Miscellaneous business activities n.e.c  | (2005 on)                 |
|                    | Management activities of holding companies  Hotals and restaurants and social work activities with accommodation   |                           |
| 755                | Hotels and restaurants and social work activities with accommodation   |                           |

7560 Federal government

| 7570 | Federal states *  |          |
|------|---|----------|
| 7580 | Local government and local authority associations*  |          |
| 7590 | Social security and employment promotion  |          |
| 777  | Human and veterinary health activities  |          |
| 779  | Renting of machinery and equipment  |          |
| 786  | Other business activities   |          |
| 795  | Other business activities n.e.c.  |          |
| 8000 | Education   |          |
| 800  | Non-profit organisations serving households   |          |
| 8500 |   |          |
| 850  | Private households with employed persons  |          |
| 9000 | Sewage and refuse disposal, sanitation and similar activities                                   |          |
| 900  | General government  |          |
| 901  | Federal government – general government   |          |
| 902  | Federal states – general government   |          |
| 903  | Local authorities – general government  |          |
|      | Activities of other membership organisations, excl. non-profit organisations serving households |          |
| 910  | Compulsory social security activities   |          |
|      |   | to 2004) |
|      |   | 2005 on) |
|      | Other service activities n.e.c., excluding non-profit organisations serving households          |          |
|      | Private households with employed persons  |          |
| 9560 |   |          |
| 9600 |   |          |
| 974  | Investment enterprises  |          |
| 9800 |   |          |
| 993  | Credit institutions   |          |
| 995  | Credit institutions including investment enterprises  |          |
| 9999 | Not elsewhere classified  |          |

## Sectoral grouping 29

| WZ 2003 | bgr | Description  | Allocated to these sector codes                          |
|---------|-----|--|--|
| A/B     | LFF | Agriculture, hunting and forestry                                      | 39,<br>100, 200, 500                                     |
| С       | BSE | Mining and quarrying   | 67, 75, 84, 92, 156, 164<br>1000, 1100, 1200, 1300, 1400 |
| DA      | EUT | Manufacture of food products, beverages and tobacco                    | 343, 345<br>1500, 1600                                   |
| DB/DC   | TBL | Textiles, apparel and leather goods                                    | 303, 308, 314, 318<br>1700, 1800, 1900                   |
| DD      | HLZ | Manufacture of wood and wood products (excl. furniture)                | 272, 275<br>2000   |
| DE      | PVD | Manufacture of pulp, paper and paper products; publishing and printing | 280, 282, 285<br>2100, 2200                              |
| DF      | KMB | Manufacture of coke, refined petroleum products and nuclear fuel       | 117<br>2300  |
| DG      | CHE | Manufacture of chemicals and chemical products                         | 112<br>2400, 2440  |
| DH      | GUK | Manufacture of rubber and plastic products                             | 122, 130<br>2500   |
| DI      | GKV | Manufacture of other non-metallic mineral products                     |  |
| DJ      | MET | Metal-working industry   | 173, 181, 204, 207, 213, 257<br>2700, 2800               |
| DK      | MAS | Manufacture of machinery and equipment n.e.c.                          | •  |

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The sectoral groups indicated here are only examples and are included in the database as "value labels" for the original sectors' numerical codes.

| DL      | ICT   | Manufacture of office machineries,       | 227, 244, 253                                  |
|---------|-------|--|--|
|         |       | computers, electrical and optical        | 3000, 3100, 3200, 3300                         |
|         |       | equipment                                |  |
| DM      | FZB   | Manufacture of transport equipment       | 228, 230, 235, 237                             |
|         |       |  | 3400, 3500, 3510, 3520, 3530, 3540, 3550       |
| DN      | MSR   | Manufacturing n.e.c.                     | 264, 267                                       |
|         |       |  | 3600, 3700                                     |
| E       | EUW   | Electricity, gas and water supply        | 59   |
| _       | 5411  |  | 4000, 4100                                     |
| F       | BAU   | Construction                             | 399, 4500                                      |
| G       | EIN   | Retail trade                             | 496  |
| <u></u> | GRO   | Wholesale trade                          | 5000, 5200                                     |
| G       | GRU   | Wholesale trade                          | 404, 449<br>5100                               |
| Н       | GGW   | Hotels and restaurants                   | 755  |
| 11      | GGVV  | rioteis and restaurants                  | 5500   |
| 1       | TUV   | Transportation, post, telecommunication  | 599  |
| •       |       | Transportation, post, tolocommunication  | 6000, 6100, 6200, 6300, 6400, 6410, 6420       |
| J       | FDL   | Financial services                       | 617, 695, 737, 974, 993, 995                   |
|         |       |  | 6550, 6560, 6570, 6580, 6590, 6600, 6700       |
| K       | DLU   | Business activities                      | 786  |
|         |       |  | 7400, 7411, 7412, 7413, 7414, 7420,            |
|         |       |  | 7430, 7440, 7450, 7460, 7470, 7480             |
| K       | EDV   | Computer and related activities          | 7200   |
| K       | FUE   | Research and development                 | 7300   |
| K       | GWV   | Real estate and renting activities       | 719, 779                                       |
|         | =     |  | 7050, 7060, 7100                               |
| K       | HLD   | Holding companies                        | 731  |
|         | 01111 | Compared may remain to                   | 7490   |
| L       | ОНН   | General government                       | 900, 901, 902, 903                             |
| L       | SOZ   | Compulsory social security activities    | 7560, 7570, 7580<br>910                        |
| _       | 302   | Compaisory social security activities    | 7590   |
| M/N     | EUG   | Education, health, veterinary and social | 777  |
| 171/14  |       | care                                     | 8000, 8500                                     |
| 0       | AAE   | Sewage and refuse disposal               | 9000   |
| Ö       | INT   | Activities of other membership           | 9100   |
|         |       | organisations                            |  |
| 0       | KSU   | Recreational, cultural and sporting      | 9200, 9210, 9220, 9230, 9240, 9250, 9260, 9270 |
|         |       | activities                               |  |
| 0       | SDL   | Other service activities                 | 795  |
|         |       |  | 9300   |
| Р       | OOE   | Non-profit organisations serving         | 800  |
| _       |       | households                               | 9600   |
| Р       | PRI   | Private households with employed         | 850  |
|         | 0011  | persons                                  | 9550, 9560                                     |
|         | SON   | Other                                    | 9800, 9999                                     |

## **Balance sheet types**

## Code Balance sheet type

- Not included in the standard version of the microdatabase. Includes the original balance sheet for enterprises artificially divided into holding companies and non-holding companies or balance sheets for indirect elements in holding chains which are disregarded. (Especially for FDI aggregates, otherwise there would be duplication).
- Direct participating interests in non-holding companies or in holding companies which do not hold any indirect participating interests subject to reporting requirements in the same country.
- 2 Direct participating interests in holding companies which report indirect participating interests.
- 3 Indirect participating interests held by holding companies.
- 4 Indirect participating interests held by non-holding companies.
- 5 Direct and indirect participating interests held by holding companies.
- 6 Direct and indirect participating interests held by non-holding companies.

#### **Federal states**

| Code  | e Federal state        | abbr. | Code | e Federal state               | abbr. |
|-------|------------------------|-------|------|-------------------------------|-------|
| 0, 10 | No allocation          | n/a   | 24   | Hamburg                       | HH    |
| 1     | Berlin                 | В     | 31   | Rhineland Palatinate          | RP    |
| 11    | Free State of Bavaria  | BY    | 32   | Saarland                      | SL    |
| 12    | Hesse                  | HE    | 41   | Mecklenburg-Western Pomerania | MV    |
| 13    | Baden-Württemberg      | BW    | 42   | Brandenburg                   | BR    |
| 14    | Bremen                 | HB    | 43   | Saxony-Anhalt                 | SA    |
| 21    | Lower Saxony           | NI    | 44   | Free State of Saxony          | SN    |
| 22    | North Rhine-Westphalia | NRW   | 45   | Thuringia                     | TH    |
| 23    | Schleswig-Holstein     | SH    |      | •                             |       |

## **Legal forms**

| Code                 | Legal form   |
|----------------------|--|
| Resident enterprises |  |
| 0                    | Households   |
| 1                    | AG and KGaA  |
| 2                    | GmbH and & Co GmbH   |
| 3                    | Sole proprietorships, KG (Kommanditgesellschaft), OHG (offene Handelsgesellschaft), OHG mbH (offene Handelsgesellschaft mit beschränkter Haftung), GmbH & Co KG, AG & Co KG, GbR (Gesellschaft des bürgerlichen Rechts), GbR mbH (Gesellschaft des bürgerlichen Rechts mit beschränkter Haftung), e.V., e.G., a.G. |
| 4                    | Branch or permanent establishment  |
| 5                    | German enterprise with foreign legal form (z.B. B.V., Ltd.)  |
| Foreign enterprises  |  |
| 0                    | Legally independent enterprises  |
| 1                    | Branch or permanent establishment  |

#### **UBO-Flags**

| 00 | Reporting unit is independent  |
|----|--|
| 30 | Reporting unit or UBO of the reporting unit owned by domestic private individual |
|    |  |

31 Reporting unit has domestic company as UBO

- 32 Reporting unit or UBO held by domestic public authorities
- 33 Reporting unit or UBO held by domestic family
- 40 Reporting unit or UBO held by foreign private individual
- 41 Reporting unit has foreign company as UBO
- 42 Reporting unit or UBO held by foreign public authorities
- 43 Reporting unit or UBO held by foreign family
- 60 Reporting unit or UBO held by a private individual via a domestic foundation or club
- 61 Reporting unit or UBO held by a domestic foundation or club
- 62 Reporting unit or UBO held by public authorities via a domestic foundation or club
- 63 Reporting unit or UBO held by a family via a domestic foundation or club
  - Reporting unit is private individual (*ubf*==3), no UBO determinable
- 99 UBO of reporting unit not yet identified

#### Web-Site of the FDI network

http://www.bundesbank.de/vfz/vfz\_fdidaten.en.php

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