# Annex B Report on Quality of GNI 2022

## 1. TRIV: Reinvested earnings on foreign direct investment

ESA 2010 (paragraph 4.64) defines reinvested earnings (RIE) on foreign direct investment (FDI) as equal to net operating surplus of the foreign direct investment enterprise *plus* property income and current transfers receivable *minus* property income, current transfers and taxes on income payable. In practice, this was approximated by using data reported by companies in surveys and in tax declarations. As companies often do not capitalize (part of) their expenses in intangible assets, this may lead to differences between reported RIE and RIE according to ESA 2010 and therefore to an incorrect GNI.

In order to correct GNI, two types of adjustments are made. First adjustments are made on outward RIE for foreign owned corporations. Second, adjustments are made on inward RIE for Dutch multinationals. Conceptually, adjustments are also required for foreign subsidiaries of Dutch foreign owned corporations. For these corporations however, the adjustment on inward RIE should also be made on outward RIE, leaving no impact on GNI. For that reason, no adjustments on inward RIE are made for foreign owned corporations.

The work presented on this transversal reservation is part of the work done on transaction specific reservation I on subsectoring of Dutch non-financial corporations. For transparency reasons however, data on these two reservations are presented separately. Furthermore, as the transversal reservation starts in 2010 and the transaction specific reservation starts in 2016, data for the period 2010-2015 have to be presented separately anyway.

This chapter will first present the method used for the period 2015-2020. For this period a detailed process has been used. For the period 2010-2014, a much more aggregated method has been used for back casting.

## 1.1 Outward RIE

For outward RIE, the process is broken down into three steps. First, it is determined which enterprises have a foreign owner. As not all enterprises are owned for 100% by a foreign corporation, the foreign ownership ratio is also determined in this step. As reinvested earning are only included in national accounts for ownership of more than 10%, ownership percentages smaller than 10 percent are not taken into account. Some Dutch enterprises are owned by a Dutch SPE, which is in turn owned by a foreign corporation. These enterprises are also considered as foreign owned, as the ultimate owner is a foreign corporation.

Next, the adjustment on gross fixed capital formation (GFCF) made in the national account is determined for each individual enterprise. The adjustment required on RIE is equal to the adjustment on GFCF multiplied by the ownership percentage. As for most foreign owned corporations, this ownership percentage is 100%, the adjustment on RIE is equal to the adjustment on GFCF. But smaller ownership percentages do exist, even ownership percentages smaller than 50%. In the latter case, adjustments on RIE are estimated, even though the enterprise is technically speaking not foreign owned. Therefore, the adjustments on RIE fully align with the concept of FDI.

In the last step, adjustments on consumption of fixed capital (CFC) are determined. This adjustment leads to a negative adjustment on RIE, similar to the method for making adjustments for GFCF.

The adjustment for an individual company, which is owned for Y% by a foreign corporation is therefore calculated as

$$Adj_{RIE} = Y[Adj_{GECE} - Adj_{GEC}]$$

For outward RIE, adjustments are made for three asset types, research and development (AN.1171), computer software and databases (AN.1173) and entertainment, literary or artistic originals (AN.1174).

Expenses in the Netherlands of mineral exploration and evaluation (AN.1172) by foreign owned enterprises are small and not taken into account for this reservation. In the period 2010-2020, the average GFCF in mineral exploration and evaluation equals 357 million euros per year. This is already below the threshold of 0.1% of GNI, although the maximum GFCF as a percentage of GNI in a single year is 0.11%. As large parts of this GFCF is done by Dutch enterprises, as a large part of this GFCF is already capitalized in the company accounts, and as the impact of GFCF will be compensated by the impact of CFC, the total impact of capitalizing this asset will be far below the materiality threshold.

It should be noted however, that adjustments for this asset type are implicitly included in the results of the transaction specific reservation on the subsectoring of non-financial corporations and thus included in the GNI data for 2016 onwards. These adjustments can however not be explicitly separated from other adjustments within this reservation.

The next three subsections will describe the three steps for the period 2015-2020 in more detail. The fourth subsection will describe the time series for the period 2010-2014.

## 1.1.1. Determining foreign ownership

The method for determining foreign ownership are described extensively in a report on the subsectoring of non-financial corporations<sup>1</sup>. In this report, only a small overview is given.

The main data sources for determining foreign ownership are

- a) The SFGO statistic asks the largest non-financial corporations in the Netherlands along with its numerical data request whether they have a foreign owner and what the ownership percentage is.
- b) The business register records, based on Chamber of Commerce data, whether units are 100% owned by a foreign owner and the name and nationality of that foreign owner.
- c) As part of the FATS (Foreign Affiliate Trade Statistics), a statistic based on European legislation, Statistics Netherlands has compiled a list of corporations that have a foreign Ultimate Controlling Institutional unit (UCI). An UCI is defined as begin an institutional unit which is not controlled by any other institutional unit when moving up a chain of control. The data sources underlying the establishment of the UCI are data from the Netherlands foreign investment agency, Eurostat's

<sup>&</sup>lt;sup>1</sup> Non-Financial Corporations Split into Subsectors by Ronald Nelisse, CBS, 2021.

- EuroGroups Register (EGR), the SFO, the business register and information gathered from public sources.
- d) Data was also available from the balance of payments (BoP) and the statistic on the international investment position (IIP) compiled by the Dutch Central Bank. Both statistics specifically target corporations with foreign subsidiaries and associates or foreign parents.

Analysis showed that if any of the data sources found that a Dutch corporation was owned by a foreign owner, that was generally the case. In practice, this means that a corporation is recorded as foreign owned if one or more of these sources recorded foreign ownership. For the largest corporations however, when sources were contradictory, further analyses were carried out. In these cases data from annual reports were for example used to determine whether foreign ownership exists.

## 1.1.2. Adjustments in GFCF

In the process of compiling national accounts, explicit adjustments on output and intermediate consumption by industry are made for capitalizing R&D, software and databases, and entertainment, literary or artistic originals. Adjustments in output are made for own account GFCF, adjustments on intermediate consumption are made for purchased GFCF. These adjustments are also included in the process tables and are described in the GNI Inventory. These adjustments are not necessarily equal to the GFCF. For purchased software, around 1/3 of CFCF is capitalized in company records. Furthermore, for some individual companies or industries information is available that expenses are being capitalized. This is for example the case with purchased R&D by telecommunication services. When this kind of information is however not available, it is assumed that the GFCF is not capitalized in company records. In these cases, adjustments on output and intermediate consumption equal GFCF. These adjustments by asset type and industry are divided over all corporations in the industry.

## Research and development

The Frascati survey provides data on R&D expenses for the largest R&D users and producers. Other firms are grossed up. These data are used for estimating GFCF in R&D. For corporations that are part of the Frascati survey, the response in this survey is used to explicitly estimate the adjustment made for capitalizing R&D. Cases where it is explicitly known that R&D is already capitalized are taken into account as described in the previous paragraph. The grossed up part of the survey is available by industry and size class. This is distributed over the corporations in the industry and size class in question based on the number of people employed in each corporation.

## Software and databases, and entertainment, literary or artistic originals

For software and databases, and for entertainment, literary or artistic originals adjustments on output and intermediate consumption are distributed over the corporations in an industry based on the number of people employed in each corporation.

<sup>&</sup>lt;sup>2</sup> This ratio is based on explicit questions on software and software investments in an ICT survey in 2010.

## 1.1.3. Adjustments in CFC

For CFC, data are available from the Perpetual Inventory Model by asset type and industry. These data are used as starting point for the estimation of the adjustment for CFC. Furthermore, two assumptions are made. The first assumption is that for each industry and asset type the share of foreign owned corporations in total CFC is equal to their share in total GFCF. If 25% of GFCF in software in industry A is assigned to foreign owned corporations, these foreign owned corporations are also assigned 25% of CFC in R&D in industry A.

The second assumption is that for each industry and asset type, the share of GFCF that is already capitalized in company records is equal to the share of CFC that is already recorded in the company records. If 20% of GFCF in software in industry A is already capitalized in company records, than it is assumed that also 20% of CFC in software in industry A is already included in company records.

For software in industry A in this example, the adjustment for CFC in software is (0.25 X 0.8 =) 20% of the total CFC in software in this industry.

For one industry, GFCF is software and R&D was extremely volatile. These two assumptions were therefore deemed not plausible for this industry. For this industry, an expert guess was used to estimate the adjustments for CFC in this industry. As the adjustment for CFC in this industry were relatively low (30 to 40 million euros), a different expert guess would not lead to substantially different results.

#### 1.1.4 Time series 2010-2014

For the period 2010-2014, no detailed data are available on which corporations are foreign owned. Furthermore, explicit data on the adjustments on output and intermediate consumption for this period are not fully consistent with the national accounts. Data on these adjustments are consistent with the national accounts before the benchmark revision over reference year 2015. Due to revisions of the time series however, there is no consistency anymore with the current time series of the national account. Data GFCF and CFC by industry and asset are consistent with the current time series of the national accounts, as these series are revised together with the rest of the national accounts.

For the time series, it is assumed that the required adjustment per industry and asset type for foreign owned corporations as a percentage of GFCF and CFC remains constant over the period 2010-2015. This means that the impact of shift in GCFC and CFC between industries is included in the results. When GFCF in industries with many foreign owned corporations is higher in 2010 than in 2015 and GFCF in industries with little foreign owned corporations is lower, the adjustment will also be higher. Likewise, shifts in GFCF (or CFC) between assets will also be reflected in the results. Mergers and acquisitions however, when for example a corporation that is foreign owned in 2015 was still a domestic corporation in 2010, are due to lack of data not taken into account in this estimate. The impact of these mergers and acquisitions is however expected to be far below the materiality threshold.

## 1.1.5 Results

Table 1 shows the total impact on outward RIE. The total impact varies from -240 million euros in 2018 and +506 million euros in 2014. The impact for software is positive over the whole time series, the impact of entertainment, literary and artistic originals is almost zero. For research and development, the impact in positive until 2014 but turns negative from 2015 onwards. This is caused by a large decrease in R&D done in the Netherlands by foreign owned corporations, among others the closure of a large research facility by a pharmaceutical corporation.

| Table 1. Adjustment on outward RIE              |       |       |       |       |       |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|   | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|   |       |       |       |       |       |       |       |       |       |       |       |
| GFCF  | 4561  | 4678  | 4784  | 4995  | 5247  | 4744  | 4813  | 5068  | 5647  | 5926  | 6058  |
| a) Research and development                     | 2332  | 2410  | 2421  | 2550  | 2635  | 1865  | 1703  | 1723  | 1919  | 1903  | 1963  |
| b) Software and databases                       | 2180  | 2219  | 2309  | 2391  | 2559  | 2807  | 3019  | 3246  | 3645  | 3931  | 4029  |
| c) Entertainment, literary or artistic original | 50    | 50    | 54    | 54    | 53    | 72    | 91    | 98    | 83    | 92    | 67    |
| CFC   | -4363 | -4412 | -4489 | -4603 | -4741 | -4908 | -5101 | -5243 | -5887 | -5856 | -6013 |
| a) Research and development                     | -2229 | -2270 | -2310 | -2351 | -2411 | -2447 | -2451 | -2350 | -2514 | -2242 | -2228 |
| b) Software and databases                       | -2090 | -2095 | -2130 | -2200 | -2278 | -2404 | -2572 | -2808 | -3290 | -3526 | -3706 |
| c) Entertainment, literary or artistic original | -44   | -46   | -49   | -51   | -53   | -56   | -78   | -86   | -84   | -88   | -79   |
| Total impact ESA 2010 (a + b + c)               | 199   | 267   | 295   | 392   | 506   | -164  | -287  | -176  | -240  | 70    | 45    |
| a) Research and development                     | 103   | 139   | 111   | 198   | 224   | -582  | -748  | -627  | -595  | -338  | -265  |
| b) Software and databases                       | 90    | 123   | 179   | 191   | 282   | 403   | 447   | 438   | 355   | 405   | 323   |
| c) Entertainment, literary or artistic original | 6     | 4     | 6     | 3     | 0     | 16    | 14    | 13    | -1    | 3     | -13   |
| Total impact ESA 1995 (b + c)                   | 96    | 127   | 185   | 194   |       |       |       |       |       |       |       |

## 1.2 Inward RIE

The adjustment on inward RIE is estimated for three asset types, , research and development (AN.1171), mineral exploration and evaluation (AN.1172), and computer software and databases (AN.1173).

For entertainment, literary or artistic originals (AN.1174) no adjustment is estimated. There are no large Dutch multinationals with foreign subsidiaries involved in creating these originals. As the impact on outward RIE is already very small, impact on inward RIE I expected to be negligible.

For estimating the impact on RIE, annual reports are used to estimate GFCF in these assets that is not capitalized in company accounts. The time series of GFCF are subsequently used in a PIM-model to estimate CFC. The total adjustment equals the GFCF that was not capitalized in the company record minus the calculated CFC.

## Mineral exploration and evaluation

There is one large Dutch corporation whose foreign subsidiaries are involved in mineral exploration and evaluation. This corporation shows in its annual report the total expenses in mineral exploration and evaluation worldwide, including a breakdown into what part is capitalized in the accounts and what part is expensed. Broadly speaking, this corporation capitalizes half of its mineral exploration and evaluation.

From the annual reports, a time series of non-capitalized mineral exploration and evaluation worldwide starting in 1998 is taken. It is assumed that this completely concerns mineral exploration by foreign subsidiaries.

For the PIM, additional data on prices, depreciation rates and an initial capital stock are required. The prices of GFCF on domestic mineral exploration and evaluation are used, just like in the PIM for domestic CFC. The depreciation rates are also taken from the PIM for domestic CFC. For the initial capital stock in 1998 an expert guess is used.

## Research and development

For R&D, the 15 Dutch multinationals with the largest received profits from foreign subsidiaries are selected. Together, these 15 companies represent 85% of all received profits from foreign subsidiaries. For these companies, expensed R&D worldwide is taken from their annual reports for the period 2015-2017. This data is available separately from R&D that is capitalized in the company accounts. Data showed that within these 15 multinationals, 6 multinationals represent 90% of the expensed R&D. For these 6 multinationals, a time series of expensed R&D from 2004 onwards is taken form the annual accounts.

This time series represents the expensed R&D worldwide. For a breakdown between domestic R&D and R&D done by foreign subsidiaries, a comparison is made between expensed R&D worldwide from the annual reports and microdata on adjustments for capitalizing R&D from the project subsectoring non-financial corporation. As explained in section 1.1.2, this information is based on the Frascati survey. This comparison is done for 2015-2017 and led to an estimate that 62% of the expensed R&D is done by foreign affiliates. This ratio is used for all years.

Together, this leads to an adjustment for GFCF in R&D of:

- Expensed R&D worldwide in annual accounts for 6 corporations
- Multiplied by percentage done by foreign affiliates (62%)
- Divided by share top 6 corporations in top 15 corporation (90%)
- Divided by share top 15 corporation in total profits from foreign affiliates (85%)
- Equals 81% of expensed R&D worldwide in annual accounts for 6 corporations

For the PIM, additional data on prices, depreciation rates and an initial capital stock are required. The prices of GFCF on domestic R&D are used, just like in the PIM for domestic CFC. The depreciation rates are also taken from the PIM for domestic CFC. As not all industries have the same depreciation rates on R&D, the average rates are taken. For the initial capital stock in 2004 an expert guess is used.

#### Software and databases

For software and databases, no useful data can be obtained from annual accounts of the largest corporations. Using a method based on the ratio between profits received from foreign affiliates and paid to foreign owners is deemed implausible. The main reason for this is that the received profits from foreign affiliates in too much dependent on the prices of oil and gas. As these prices are very volatile, this would lead to very volatile adjustments on RIE.

For estimating GFCF is software and databases that is not capitalized in the annual accounts of corporations, the ratio with R&D is used. For 2015-2017, the adjustment for Dutch multinationals for capitalizing software is 84% of the adjustment for capitalizing R&D. For the period 2015-2020, it is assumed that this ratio is also valid for adjustments for capitalizing software and R&D for foreign affiliates. This means that for these years, GFCF in software and databases that is not capitalized in the annual accounts is estimated as 84% of adjustment for GFCF on R&D.

For the time series, it is expected that software GFCF declines faster backwards in time. Therefore the ratio of 84% is probably too high. For the time series back to 2004, the growth rate of value added by NACE 62 (computer services) is taken.

Once again, for the PIM additional data on prices, depreciation rates and an initial capital stock are required. The prices of GFCF on domestic R&D are used, just like in the PIM for domestic CFC. The depreciation rates are also taken from the PIM for domestic CFC. For the initial capital stock in 2004 an expert guess is used.

#### 1.2.1 Results

Table 2 shows the total impact on inward RIE. The total impact varies from -104 million euros in 2010 (ESA 1995) and +1763 million euros in 2015. The impact on R&D is positive for the whole time series except for 2010. In the most recent years, the impact is much higher than in older years. The main reason for this is a large increase in R&D for one specific multinational. The impact for software is positive over the whole time series, like with the outward software. For mineral exploration and evaluation, the impact is very volatile. This reflects the fact that expenses in mineral exploration and evaluation are very volatile. CFC is much more stable.

| Table 2. Adjustment on inward RIE    |       |       |       |       |       |       |       |       |       |       |        |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                      | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020   |
| GFCF                                 | 6545  | 7014  | 7820  | 8321  | 8340  | 9645  | 8665  | 8744  | 9129  | 10230 | 10376  |
| a) Research and development          | 3244  | 3482  | 3622  | 3781  | 3806  | 3796  | 4081  | 4245  | 4550  | 5005  | 5204   |
| b) Software and databases            | 2386  | 2481  | 2554  | 2653  | 2846  | 3193  | 3432  | 3571  | 3827  | 4209  | 4377   |
| d) Mineral exploration and databases | 915   | 1051  | 1644  | 1887  | 1689  | 2657  | 1151  | 928   | 752   | 1016  | 795    |
| CFC                                  | -6879 | -6907 | -7097 | -7219 | -7373 | -7882 | -8411 | -8693 | -9028 | -9600 | -10098 |
| a) Research and development          | -3475 | -3458 | -3462 | -3505 | -3546 | -3616 | -3908 | -4002 | -4150 | -4343 | -4564  |
| b) Software and databases            | -2269 | -2361 | -2440 | -2524 | -2610 | -2758 | -2955 | -3170 | -3415 | -3696 | -3989  |
| d) Mineral exploration and databases | -1135 | -1089 | -1195 | -1190 | -1217 | -1509 | -1548 | -1521 | -1464 | -1560 | -1546  |
| Total impact ESA 2010 (a + b + d)    | -335  | 106   | 723   | 1102  | 967   | 1763  | 253   | 51    | 101   | 630   | 278    |
| a) Research and development          | -231  | 24    | 160   | 276   | 259   | 180   | 173   | 243   | 400   | 661   | 640    |
| b) Software and databases            | 116   | 120   | 113   | 129   | 236   | 435   | 477   | 401   | 412   | 513   | 389    |
| d) Mineral exploration and databases | -220  | -39   | 450   | 697   | 472   | 1148  | -397  | -593  | -711  | -545  | -751   |
| Total impact ESA 1995 (b + d)        | -104  | 82    | 563   | 826   |       |       |       |       |       |       |        |

## 1.3 Total impact on GNI

Table 3 shows the total impact on GNI. Apart from 2010 and 2011, capitalizing intangible assets has a positive impact on GNI. The largest impact is in 2015, with an impact of almost 2 billion euros. For software and database and entertainment, literary or artistic originals, the impact is very small. In

recent years, the impact for R&D is close to 1 billion euros. This is caused by a positive impact on inward RIE and a negative impact on outward RIE.

| Table 3. Impact on GNI                          |      |      |      |      |      |      |      |      |      |      |      |
|---|------|------|------|------|------|------|------|------|------|------|------|
|   | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Total impact ESA 2010 (a + b + c + d)           | -534 | -161 | 428  | 710  | 461  | 1927 | 540  | 227  | 341  | 560  | 233  |
| 10tal Impact ESA 2010 (a + b + c + d)           | -534 | -191 | 428  | /10  | 461  | 1927 | 540  | 221  | 341  | 560  | 233  |
| a) Research and development                     | -334 | -115 | 49   | 78   | 36   | 762  | 921  | 869  | 995  | 1000 | 905  |
| b) Software and databases                       | 26   | -3   | -66  | -62  | -46  | 32   | 30   | -38  | 57   | 108  | 66   |
| c) Entertainment, literary or artistic original | -6   | -4   | -6   | -3   | 0    | -16  | -14  | -13  | 1    | -3   | 13   |
| d) Mineral exploration and databases            | -220 | -39  | 450  | 697  | 472  | 1148 | -397 | -593 | -711 | -545 | -751 |
|   |      |      |      |      |      |      |      |      |      |      |      |
| Total impact ESA 1995 (b + c + d)               | -200 | -46  | 378  | 632  |      |      |      |      |      |      |      |

## 2. Reservation on subsectoring of non-financial corporations

## 2.1 Introduction

In September 2021 Statistics Netherlands provided Eurostat with the subsectoring report<sup>3</sup> which concluded that the income that should be attributed to foreign multinationals is underestimated, partly due to inconsistencies between the supply and use tables on the one hand and the sector accounts on the other hand, partly due to a bias towards recording Dutch ownership of corporations by spotting foreign ownership insufficiently or insufficiently timely and partly due to inconsistencies caused by compilation adjustments. This report resulted in a transaction specific reservation on subsectoring of Dutch non-financial corporations for the period from 2016 onwards.

In February 2022, a (digital) visit from Eurostat took place. During this visit, Statistics Netherlands explained the method used in the subsectoring report further and provided detailed examples of the methods used for subsectoring. Eurostat welcomed the improvements made in the calculation of reinvested earnings in the method through use of subsectors, but explained that official approval could only take place after including all data in the GNI questionnaire and the method was described in the GNI Report on Quality.

In September 2022 Statistics Netherlands has revised the National Accounts in order to address this reservation. This report describes the methods employed and the results for the transaction specific reservation.

The method for addressing this reservation has a close link to the method used for the transversal reservation on reinvested earnings on direct foreign investment. This reservation has also been addressed by the subsectoring process, as the transversal reservation can be seen as a subset of the transaction specific reservation on subsectoring non-financial corporations. For the paid reinvested earnings, this report therefore first describes the method employed for estimating the total adjustment of reinvested earnings. In a second step, the adjustments made for the transversal reservation are subtracted from this result in order to arrive at the adjustment for only the transaction specific reservation.

For received reinvested earnings only adjustments are made for capitalizing intangible assets. The analysis of the data of the largest Dutch multinationals, conducted as an extension of the subsectoring analysis, did not provide evidence of a data bias that needed to be corrected. Therefore, all adjustments on received reinvested earnings can be attributed to the transversal reservation. For this reason, the method used for received reinvested earnings is not included in this report, but only in the report on the transversal reservation.

## 2.2 Method employed

The transaction specific reservation covers the period from 2016 onwards. As the new method is applied to final annual estimates, this report presents the results for the period 2016-2020. A

<sup>&</sup>lt;sup>3</sup> Non-Financial Corporations Split Into Subsectors, September 2021, Ronald Nelisse.

preliminary estimate for 2021 is included in the GNI questionnaire. This estimate will be revised next year as the final annual estimate will be made.

The idea behind the method is that all current transactions for non-financial corporations in the national accounts are completely assigned to individual corporations. This results in micro data on non-financial corporations that is conceptually in line with ESA 2010. Furthermore, the sum of the micro data exactly equals the data in the national accounts. This process starts with the source data at a micro level. Some data sources are available on a granular level and can therefore be directly used. Other data sources use sampling. In these cases additional information is used to assign the grossed up part of the survey to individual corporations.

In the next step, every adjustment in the national account process is assigned to individual corporations. This is done for conceptual adjustments, adjustments for exhaustiveness, data validation and balancing. When possible, these adjustments are based on actual data, for example when an adjustment for data validation is made for a specific corporation or when a conceptual adjustment is based on micro data. When this is not possible, ratios are used to assign the adjustment to individual corporations, for example the share in total output. This results in set of micro data for non-financial corporations that is fully consistent with the national accounts.

Subsequently it is determined for each individual corporations whether it is foreign owned (and if relevant to what extend it is foreign owned). Combined, this allows for each individual foreign owned corporation to exactly calculate the reinvested earning and thus achieve complete consistency with the national accounts.

The method used for the whole period 2016-2020 is nearly identical, with the exception of the transactions which are derived from the supply and use tables. For these transactions two methods have been used to calculate the new outward reinvested earnings on foreign direct investments (RIE). This will be elaborated on in sections 2.2 and 2.3. First, section 2.1 will describe how foreign ownership was determined.

## 2.2.1 Foreign ownership

To determine foreign ownership four data sources were used.

- a. The statistic finances of enterprises. This statistic surveys the 2600 largest non-financial corporations (enterprisegroups) in the Netherlands and indicates which part of their equity, in percentages, belongs to foreign owners.
- b. The business registers, based on information of the Chamber of Commerce, records whether legal entities are 100% foreign controlled, or not.
- c. The Foreign Affiliate Trade Statistic (FATS) keeps track of the ultimate controlling institutional unit (UCI) on an enterprise level. The data sources underlying the establishment of the UCI are collected from the Netherlands foreign investment agency, Eurostat's EuroGroups Register (EGR), the finances of enterprises and information gathered from public sources.
- d. For the period up to 2018 data from the balance of payments (BoP) and the statistic on the international investment position (IIP) was also available.

A corporation was recorded as a (partially) foreign owned if one of the sources recorded a (partial) foreign ownership. If contradictory information was found, additional research was performed for

the largest corporations by using, for example annual account information, to establish the correct ownership of an enterprise group. In practice, even when only one of the data sources shows that foreign ownership existed, the conclusion mostly was that foreign ownership indeed existed.

The method for determining foreign ownership is described in detail in the report on subsectoring previously mentioned.

## 2.2.2 Compilation method 2016-2017

The sources and methods employed for the period 2016-2017 are described extensively in paragraph 3.2 and paragraph 6 of the report on subsectoring. In this report an overview is presented.

The data on output and intermediate consumption, wages and salaries, social contributions and taxes and subsides on production are based on the supply and use tables and the labour accounts. A key input to compile output and intermediate consumption in the supply and use tables is data from the Structural Business Statistics (SBS) providing data for most industries in which non-financial corporations play a role. But the SBS-survey does not cover the all industries. Additional data sources are used for agriculture, (parts of) real estate, healthcare and (part of) other services.

Wages and salaries and social contributions are based on social security records collected by the Employment Insurance Agency (UWV, 'Uitvoeringsinstituut Werknemersverzekeringen') enhanced with pension data form pension funds statistics. Granular data is available for all statistical units. Data on total taxes and subsidies on production are available from government data. Its distribution over industries is to some extent based on SBS-data but to align with the government data imputations and balancing of the industry data is needed.

To complete the income approach of GDP, operating surplus (and mixed income) is estimated as a residual by confronting the production approach based on output and intermediate consumption, and subtracting the data on wages and salaries, social contributions and taxes and subsidies on production.

The source data mentioned above is available or estimated on the enterprise level and is aggregated to the enterprise group level, on which level the division between foreign ownership and Dutch ownership is made.

Adjustments made during the compilation process of the supply and use tables (and the labour accounts) were allocated to individual enterprises wherever possible. Remaining adjustments and differences which could not be attributed to a specific enterprise or enterprise group were divided proportionally.

To compile annual data on the primary income flows in the regular sector accounts process the starting point is the Statistics of Finances of Non-financial Enterprises (SFO). This statistic, compiled by Statistics Netherlands, consists of two parts. All non-financial corporations with a balance sheet value of 40 million euros or higher receive a dedicated survey. The second part is based on corporate tax data.

To complete the full non-financial corporations sector three further additions are made.

Firstly, although institutional arrangements have changed since, at the time of the compilation, data was added on a subset of entities based on data from the Dutch Central Bank. These entities were surveyed as financial enterprises, but during the 2015 benchmark revision, it was concluded that these enterprises were non-financial corporations. Secondly data was added on head offices that are to be treated as independent institutional units. As a third step data on notional units are added. This estimate is based on balance of payments data and relates to the direct holdings of real estate by foreign owners.

Once all basic data have been collected, the data is subsequently checked during data validation and confronted with data from other sectors such as the financial corporations, the government and the rest-of-the-world. The balancing process, in which the data from all sectors are made mutually consistent, is an important step for the compilation of the non-financial corporations. It improves the quality of the data and it gives the opportunity to compile additional splits in transactions that are not or only partially available in the source data on non-financial corporations. In the subsectoring process all the micro data on primary and secondary income was collected from the various data sources and the grossing up value was attributed to enterprise groups. Subsequently all adjustments made during the data validation and the balancing process for the primary and secondary income flows mentioned above are attributed to specific enterprise groups whenever possible. Adjustments or differences which could not be attributed to a specific enterprise group were divided proportionally.

As part of the calculations performed for the annual estimation of the capital stock and consumption of fixed capital, a cross classification is determined splitting total national investments and consumption of fixed capital into sectors and industries. This cross classification estimate for consumption of fixed capital was subsequently used to estimate the consumption of fixed capital for individual corporations by using a distribution key incorporating both bookkeeping data on depreciation as well as the estimated output for each corporation. A combination was sought to be able to include actual data while bearing in mind that booking data will to some extend include non-operating items.

Once all transactions in the production account, the primary income account and the secondary income accounts as well as consumption of fixed capital are completely assigned to individual corporations, the paid reinvested earnings can be calculated. This is done for all (FDI) foreign owned enterprises by using the restriction that net savings equals zero. In cases where a corporation is partially foreign owned, an equivalent portion of net savings is attributed to paid reinvested earnings.

Table 1 shows the causes of the differences between the initial calculated outward reinvested earnings for foreign owned multinationals and the outward reinvested earnings for foreign owned multinationals using the subsectoring method. It is an updated table from the research report<sup>4</sup> as there have been some small improvements in the data processing since this report has been published.<sup>5</sup>

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<sup>&</sup>lt;sup>4</sup> Paragraph 7.2.1, table 7.4

<sup>&</sup>lt;sup>5</sup> It should be noted that the figures on capitalization of R&D / software do not match the data shown in the transversal reservation on reinvested earnings on FDI. First, this line only shows the impact for treating R&D and software on output and intermediate consumption. The impact of capitalizing R&D and software on consumption of fixed capital is included in the total impact of consumption of fixed capital. Secondly, smaller parts of the adjustments on output and intermediate consumption are included in other categories. For

| Table 1.                                    | 2016  | 2017  |
|---|-------|-------|
| Total difference                            | 7338  | 11442 |
| Cause of the difference                     |       |       |
| coverage of corporations                    | 1500  | 1792  |
| sources/compilation gross operating surplus | -3794 | -1734 |
| capitalization of R&D/software              | 4571  | 4667  |
| consumption of fixed capital                | -2905 | -4388 |
| other methodological adjustments            | 725   | 644   |
| balancing supply and use tables             | 7046  | 6325  |
| balancing sector accounts                   | -625  | 1166  |
| other                                       | 819   | 2970  |

For a more detailed explanation of the methods employed and results for the period 2016-2017, please consult the report 'Non-Financial Corporations split into subsectors' by Ronald Nelisse (September, 2021).

## 2.2.3 Compilation method 2018-2020

For the period 2018-2020 the method employed for the primary income flows is identical to the period 2016-2017. Data on output, intermediate consumption, wages and salaries, social contributions, taxes and subsidies on production are calculated differently.

First the results in the previous year (t-1) are calculated on an enterprise group level for the supply and use data mentioned above. For 2018 this implies data available on the enterprise level for 2017 is aggregated to the enterprise group level by using the business register.

## 2.2.3.1 Output, value added and intermediate consumption

Output, intermediate consumption and value added for period t and t-1 is collected from the statistic finances of enterprises on an enterprise group level for the NACE codes 1 to 84. The absolute change in value added between t and t-1 from the data source is calculated and this change is added to the t-1 value added. Output is calculated with a similar procedure but relative growth rates are used. Intermediate consumption is calculated as a residual. So, for example, value added on enterprise group level is calculated as follows:

 $ValueAdded(t) = ValueAdded(t-1) + \Delta ValueAdded(statistic finances of enterprises)$ 

For NACE codes (85 to 96) the change in output and value added of an enterprise is calculated by multiplying the t-1 results with the relative change in persons employed for the enterprise as recorded in the business register. An increase in persons employed will, generally, lead to a positive mutation and a decrease of persons employed will lead to a negative mutation of production and value added. Value added is inflated using the output price change on a two digit level as used by the supply and use tables. This means for example that the corporations in the hospital industry are

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example, some of the adjustments have been made during the balancing process. For the transversal reservation, these adjustments have been properly assigned to capitalizing R&D. In this report, the are still included in the balancing adjustments.

inflated with the deflator for the output of hospital services in the national accounts. Finally, population effects are taken into account. If an enterprise discontinued business activities during the year (deceased), or started during the year (new company) the value added is adjusted for the months the company was active in the year.

 $ValueAdded(t) = ValueAdded(t-1) * percentage\_change\_persons\_employed(enterprise) * price deflator(2 digit NACE) * (months enterprise existed / 12)$ 

The population of businesses changes constantly. As a result new corporation emerge of disappear. Data for corporations that emerge (new corporation) according to the business register need to be estimated. In case data is available from corporate tax data the value added from the data source is directly used and output and intermediate consumption are estimated. These estimates are needed because the tax data record revenue and cost of sales which include trade flows. In case the corporations is not yet registered in the tax data an estimate is made by using the available data on persons employed and multiply this with the average value added and output per employee for the industry the corporations is classified in, keeping in mind the number of months the corporation exists.

## 2.2.3.2 Wages, salaries, social contributions, taxes and subsidies

Wages, salaries and social contributions are estimated by using the absolute change in the labour costs per enterprise group as recorded in the statistic finances of enterprises in a similar way as the estimate of value added explained in the previous paragraph. Also for new corporations the approach is identical compared to estimate for value added by either using tax data directly or otherwise calculate it based on the number of employees as recorded in the business register. Wages, salaries and social contributions are only available in the in statistic finances of enterprises on a one digit level (D.1 instead of D.11 and D.12). Results for period t on the two digit level (D.11 and D.12) is calculated by dividing the one digit results in period t with the proportions of the t-1 two digit results on enterprise group level. For example, for wages on an enterprise group level:

$$D.11(t) = D.1(t) * (D.11(t-1)/(D.12(t-1) + D.11(t-1)))$$

Taxes and subsidies on production (D.29 and D.39) for period t are calculated by multiplying the t-1 results on enterprise group level with the relative change in output.

## 2.2.3.3 Data validation and alignment with supply and use tables and sectoral accounts

For all calculation methods described above, enterprise groups are manually audited whenever:

- Large increases/decreases in value added are detected,
- Significant negative value added is calculated,
- Large fluctuations in the output/valued added with respect to t-1 are detected.
- Large fluctuations in D.11, D.12, D.29 or D.39 are detected.

Whenever a check is triggered for an enterprise group, colleagues from the supply and use table are consulted if necessary, to establish whether the calculated estimates for the enterprise group match the data in the supply and use tables. Data is corrected on the enterprise group level if necessary.

The results of this calculation are assessed on a macro-level by comparing the sum of the estimates with the annual accounts data in the sector accounts. Any large differences warrant extra analysis which may include comparing results with the industry data in the supply and use tables. When the difference between the sum of the microdata and the macro-data for valued added is within 2,5 billion euro (a threshold of approximately 0,5% of value added of the non-financial corporations sector), the remaining differences are distributed proportionally.

Table 2 shows the process of proportional division of the remaining differences for the operating surplus (B.2G) in year 2020. For transaction D.11, for example, the amounts gathered from the micro data amount to 231,2 billion euro (see extrapolation method). Adjustments attributed to specific companies can be found in the column 'integration' (2,7 billion euro). Information on individual companies add up to 233,9 billion euro (see column 'total micro data'). In the sector accounts however, a total value of 232,1 billion euro is reported. This means -/- 1,8 billion euro is unassigned to individual companies (0,78% of the sector accounts value). This unassigned amount is proportionally divided.

The process is identical for the other transactions making up the operating surplus. The adjustments to output and intermediate consumption are typically larger than the other variables, This is not only because the values are higher but also because the data used to compile the estimates record revenue and cost of sales and therefore include trade flows on an gross basis instead of just the trade margin.

As explained, the difference between the sum of the microdata and the macro data for value added (B.1G) may not exceed 2,5 billion euros. In 2020 the unassigned value for value added was 2,2 billion euros.

The tables for 2018 and 2019 have been added in appendix B.

| Table 2, mill | ion euro    |              |                      |             |        |                 |                  |            |
|---------------|-------------|--------------|----------------------|-------------|--------|-----------------|------------------|------------|
| Year          | Transaction | use/resource | extrapolation method | Integration | sector | sector_accounts | total micro data | unassigned |
| 2020          | D.11        | U            | 231238               | 2752        | S.11   | 232156          | 233990           | -1834      |
| 2020          | D.12        | U            | 60876                | 409         | S.11   | 62177           | 61286            | 891        |
| 2020          | D.29        | U            | 6560                 | 785         | S.11   | 7280            | 7345             | -65        |
| 2020          | D.39        | U            | -8770                | -19853      | S.11   | -27489          | -28622           | 1133       |
| 2020          | P.1         | R            | 1074540              | -2207       | S.11   | 1064705         | 1072333          | -7628      |
| 2020          | P.2         | U            | 610622               | 9072        | S.11   | 614355          | 619694           | -5339      |
| 2020          | B.2G        | balance      |                      |             |        |                 |                  | -2414      |
| 2021          | B.1G        | balance      |                      |             |        |                 |                  | -2289      |

For both periods (2016-2017 and 2018-2020) the correction of outward reinvested earnings on foreign direct investments is calculated after all other transactions have been attributed to individual enterprises/enterprise groups. This ensures that in cases of 100% foreign ownership net savings is equal to zero<sup>6</sup>.

<sup>&</sup>lt;sup>6</sup> If a corporations is partly foreign owned, this is taken into account. In these cases, net savings may be unequal to zero.

## 2.3 Results

Next to the transaction specific reservation, the Netherlands also had a transversal reservation (TRIV\_RIE) which impacts the total adjustment of outward RIE. For detailed information please see section 1 of this Annex.

The adjustment on outward return on investments are presented in table 3. In the table, the total adjustment is broken down into the impact of TRIV on the adjustment of outward RIE and the impact of subsectoring on the adjustment of outward RIE. The impact on outward RIE is party assigned to sector S.127. This is because some of the foreign owned non-financial corporations are owned through an Dutch SPE. The RIE are therefore paid by the SPE and not by the non-financial corporation.

Table 3.

|  | 2016 | 2017  | 2018  | 2019  | 2020  |
|--|------|-------|-------|-------|-------|
| Total adjustment of outward RIE            | 7007 | 14142 | 11883 | 17513 | 16185 |
| Impact of TRIV on outward RIE adjustment   | -287 | -176  | -240  | 70    | 45    |
| Adjustment for subsectoring on outward RIE | 7294 | 14318 | 12123 | 17443 | 16140 |
| S.11                                       | 7733 | 12193 | 7321  | 12121 | 14940 |
| S.127                                      | -439 | 2125  | 4802  | 5322  | 1200  |

A complete overview is presented in appendix A, where the foreign owned, Dutch owned and total non-financial corporations are presented.

## 2.A Appendix A: subsectors and total sector accounts, million euros

|  | Dutch con       | trolled non     | -financial c    | orporation      | s               |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | 2016            | 2017            | 2018            | 2019            | 2020            |
| Resources  |                 |                 |                 |                 |                 |
| Output   | 600 770         | 629 309         | 660 856         | 689 624         | 674 090         |
| Subsidies  | 4 742           | 4 951           |                 | 5 656           | 21063           |
| other subsidies on production                                  | 4 742<br>27 088 | 4 951<br>42 013 | 5 210<br>54 952 | 5 656<br>45 532 | 21063<br>31354  |
| Primary Income<br>Interest                                     | 6 901           |                 | 6 991           |                 | 6 528           |
| Adjustment FISIM   | - 790           | - 549           | - 349           | - 877           | - 994           |
| Actual Interest Receipts                                       | 7 691           |                 | 7 340           | 7 866           | 7 522           |
| Distributed income of corporations                             | 28 388          | 32 902          | 42 117          | 41507           | 26 299          |
| Dividends  | 28 277          | 32 788          | 42 008          | 41430           | 26 190          |
| Withdrawals from income of quasi-corporations                  | 111             |                 | 109             | 77              | 109             |
| Reinvested earnings on foreign direct investments              | - 8 294         | 1737            | 5 694           | - 3 081         | - 1574          |
| Other income   | 81              | 110             | 140             | 105             | 91              |
| Investment income attributable to insurance policy holders     | 58              | 91              | 116             | 77              | 67              |
| Investment income payable to pension entitlements              | 0               | 0               | 0               | 0               | 0               |
| Investment income attributable to investment fund shareholders | 23              | 19              | 24              | 28              | 24              |
| Income from land an subsoil assets                             | 12              | 14              | 10              | 12              | 10              |
| Social contibutions and benefits                               | 5 780           | 6 441           | 6 874           | 7 372           | 8 121           |
| Net Social contributions                                       | 5 780           | 6 441           |                 | 7 372           | 8 121           |
| Other current transfers  | 3 479           | 3 918           | 3 961           |                 |                 |
| Non-life insurance claims                                      | 2 145           | 2 351           |                 | 2 3 14          | 2 509           |
| Miscellaneous current transfers                                | 1334            | 1567            | 1628            | 1727            | 2 380           |
| Capital transfers  | 1915            | 601             |                 | 1887            | 1629            |
| Investment grants  | 773             | 333             | 508             | 1406            | 668             |
| Other capital transfers  | 1142            | 268             | 1347            | 481             |                 |
| Totaal resources   | 643 774         | 687 233         | 733 708         | 754 112         | 741 146         |
| Uses   |                 |                 |                 |                 |                 |
| Intermediate consumption                                       | 317 634         | 337 590         | 360 510         | 376 277         | 367 962         |
| Employee compensation  | 181991          |                 | 198 346         | 209 657         | 217 110         |
| Wages and salaries   | 144 545         | 150 441         |                 | 165 463         | 170 624         |
| Employers' social contributions                                | 37 446          | 38 532          | 41069           | 44 194          | 46 486          |
| Other taxes on production                                      | 4 143           | 4 229           | 4 342           | 4 587           | 5 373           |
| Non product related taxes on production                        | 4 143           | 4 229           | 4 342           | 4 587           | 5 373           |
| Primary income<br>Interest                                     | 50 950<br>7 290 | 54 159<br>8 394 | 70 105<br>7 425 | 67 989<br>7 260 | 54 208<br>6 510 |
| Adjustment FISIM   | - 7 106         | - 6 256         | -5 <b>1</b> 65  | -5635           | - 6 152         |
| Actual interest payments                                       | 14 396          | 14 650          | 12 590          | 12 895          | 12 662          |
| Distributed income of corporations                             | 39 035          | 40 076          | 59 998          | 59 696          | 46 588          |
| Dividends  | 39 035          | 40 076          | 59 998          | 59 696          | 46 588          |
| Withdrawals from income of quasi-corporations                  | 0               | 0               |                 | 0               |                 |
| Reinvested earnings on foreign direct investments              | 263             | 1370            | - 823           | - 1625          | 50              |
| Other income   | 0               | 0               | 0               | 0               | 0               |
| Investment income payable on pension entitlements              | 0               | 0               | 0               | 0               | 0               |
| Income from land and subsoil assets                            | 4 362           | 4 319           | 3 505           | 2 658           | 1060            |
| Current taxes on income, wealth, etc.                          | 11687           | 11718           | 12 530          | 14 085          | 14 151          |
| current incometaxes  | 11687           | 11718           | 12 530          | 14 085          | 14 151          |
| Social conrtributions and benefits                             | 5 780           | 6 441           | 6 874           | 7 372           | 8 121           |
| Net social contributions                                       | 5 780           | 6 441           | 6 874           | 7 372           | 8 121           |
| Other current transfers  | 4 986           | 4 830           | 4 869           | 5 468           | 6 144           |
| Net non-life insurance premiums                                | 2 066           | 2 351           | 2 290           | 2 314           | 2 401           |
| Miscellaneous current transfers                                | 2 920           | 2 479           | 2 579           | 3 154           | 3 743           |
| Capital transfers  | 11              | 15              |                 | 9               |                 |
| Other capital transfers  | 11              |                 |                 |                 |                 |
| Capital formation  | 50 424          |                 | 56 416          | 62 205          | 56 262          |
| Gross fixed capital formation                                  | 48 225          |                 |                 | 57 504          | 56 366          |
| Consumption of fixed capital                                   | 41344           | 41323           |                 | 43 486          | 44 489          |
| Net fixed capital formation                                    | 6 881           |                 |                 | 14 018          |                 |
| Changes in inventories an valuables                            | 2 199           |                 |                 | 4 701           |                 |
| Changes in inventories   | 2 073           |                 |                 | 4 688           |                 |
| A equisition less disposals of valuables                       | 126             |                 |                 | 13              |                 |
| A cquisition less disposals of non-produced assets             | 619             |                 |                 | 357             | 1083            |
| Totaal uses  | 628 225         | 660 502         | 715 357         | 748 006         | 730 419         |

|   | Foreign co      | ntrolled no      | n-financial      | corporatio       | ns               |
|---|-----------------|------------------|------------------|------------------|------------------|
|   | 2016            | 2017             | 2018             | 2019             | 2020             |
| Resources   | 050.040         | 200.005          | 400.045          | 405.005          | 000.045          |
| Output<br>Subsidies   | 358 640<br>1946 | 389 635<br>2 176 | 420 615<br>2 264 | 425 885<br>2 408 | 390 615<br>6 426 |
| other subsidies on production   | 1946            | 2 176            | 2 264            |                  | 6 426            |
| Primary Income  | 58 467          | 47 626           | 57 995           |                  | 47 752           |
| Interest  | 11 5 16         | 9 941            |                  |                  | 9 759            |
| Adjustment FISIM  | - 461           | - 327            | - 219            |                  | - 561            |
| Actual Interest Receipts  | 11977           | 10 268           | 10 742           | 10 581           |                  |
| Distributed income of corporations  | 44 533          | 39 452           | 51323            |                  | 43 004           |
| Dividends   | 44 459          | 39 372           | 51254            |                  | 42 941           |
| Withdrawals from income of quasi-corporations   | 74              | 80               | 69               |                  | 63               |
| Reinvested earnings on foreign direct investments   | 2 370           | - 1836           | -3942            |                  | -5065            |
| Other income  | 48<br>35        | 68<br>56         | 90               |                  | 53<br>39         |
| Investment income attributable to insurance policy holders Investment income payable to pension entitlements      | 0               | 0                | 0                |                  | 0                |
| Investment income payable to pension entitlements  Investment income attributable to investment fund shareholders | 13              | 12               | 16               |                  | 14               |
| Income from land an subsoil assets  | 0               | 1                | 1                |                  |                  |
| Social contibutions and benefits  | 1933            | 2 164            | 2 362            |                  |                  |
| Net Social contributions  | 1933            | 2 164            | 2 362            | 2 521            |                  |
| Other current transfers   | 2 052           | 2 396            | 2 505            |                  | 2817             |
| Non-life insurance claims   | 1280            | 1456             | 1489             |                  | 1455             |
| Miscellaneous current transfers   | 772             | 940              | 1016             | 1035             | 1362             |
| Capital transfers   | 109             | 53               | 33               | 98               | 461              |
| Investment grants   | 32              | 2                | 4                |                  | 4                |
| Other capital transfers   | 77              | 51               | 29               |                  | 457              |
| Totaal resources  | 423 147         | 444 050          | 485 774          | 491 242          | 450 813          |
| Uses  |                 |                  |                  |                  |                  |
| Intermediate consumption  | 235 469         | 255 927          | 274 608          |                  | 246 393          |
| Employee compensation   | 63 798          | 67 077           | 71946            |                  | 77 223           |
| Wages and salaries  | 51275           | 54 132           | 57 869           |                  | 61532            |
| Employers' social contributions   | 12 523          | 12 945           | 14 077           | 15 115           | 15 691           |
| Other taxes on production   | 1427<br>1427    | 1600<br>1600     | 1934             |                  | 1907<br>1907     |
| Non product related taxes on production  Primary income   | 86 690          | 78 365           | 1934<br>90 170   |                  | 77 488           |
| Interest  | 11363           | 11238            | 11414            |                  | 10 107           |
| Adjustment FISIM  | -4 152          | -3723            | -3230            |                  |                  |
| Actual interest payments  | 15 515          | 14 961           |                  |                  | 13 576           |
| Distributed income of corporations  | 47 541          | 41582            | 56 887           | 37 196           | 38 415           |
| Dividends   | 45 655          | 39 514           | 54 621           | 34 628           | 35 687           |
| Withdrawals from income of quasi-corporations   | 1886            | 2 068            | 2 266            | 2 568            | 2 728            |
| Reinvested earnings on foreign direct investments   | 27 485          | 25 340           | 21509            |                  |                  |
| Other income Investment income payable on pension entitlements  | 0               | 0                | 0                | 0                | 0                |
| Income from land and subsoil assets   | 301             |                  | 360              |                  | 377              |
| Current taxes on income, wealth, etc.   | 7 118           | 6 889            | 7 979            |                  | 7 495            |
| current incometaxes   | 7 118           | 6 889            | 7 979            |                  | 7 495            |
| Social contributions and benefits   | 1933            | 2 164            | 2 362            |                  |                  |
| Net social contributions  | 1933            | 2 164            | 2 362            |                  |                  |
| Other current transfers   | 2 977           | 2 991            |                  |                  | 3 521            |
| Net non-life insurance premiums   | 1234            | 1456             | 1461             |                  | 1392             |
| Miscellaneous current transfers   | 1743            | 1535             | 1646             | 1855             | 2 129            |
| Capital transfers   | 0               | 0                |                  |                  |                  |
| Other capital transfers   | 0               | 0                |                  |                  |                  |
| Capital formation   | 25 509          | 27 127           | 27 112           |                  | 26 488           |
| Gross fixed capital formation   | 24 275          | 25 897           | 26 972           |                  | 26 545           |
| Consumption of fixed capital  | 23 319          | 25 376           | 27 669           |                  | 31013            |
| Net fixed capital formation   | 956             | 521              |                  | - 38             | - 4 468          |
| Changes in inventories an valuables   | 1234            | 1230             | 140              |                  | - 57             |
| Changes in inventories  | 1 184<br>50     | 1195<br>35       | 121              |                  | - 151<br>94      |
| A callicition less disposals at valuables   |                 |                  | . 19             |                  | 94               |
| Acquisition less disposals of valuables Acquisition less disposals of non-produced assets                         | 645             | 228              | 283              |                  | 269              |

|  | non-financ       | ial corpora       | itions; tota     | l               |                  |
|--|------------------|-------------------|------------------|-----------------|------------------|
|  | 2016             | 2017              | 2018             | 2019            | 2020             |
| Resources  | 050.440          | 1040.014          | 1001171          | 4.45 500        | 1001705          |
| Output<br>Subsidies  | 959 410          | 1018 944<br>7 127 | 1081471<br>7 474 | 1115 509        | 1064 705         |
| other subsidies on production                                  | 6 688<br>6 688   | 7 127             | 7 474            | 8 064<br>8 064  | 27 489<br>27 489 |
| Primary Income   | 85 555           | 89 639            | 112 947          | 103 398         | 79 106           |
| Interest   | 18 417           | 17 191            |                  | 17 041          |                  |
| Adjustment FISIM   | - 1251           |                   | - 568            | - 1406          | - 1555           |
| Actual Interest Receipts                                       | 19 668           | 18 067            | 18 082           | 18 447          | 17 842           |
| Distributed income of corporations                             | 72 921           | 72 354            | 93 440           | 96 231          | 69 303           |
| Dividends  | 72 736           | 72 160            | 93 262           | 96 107          | 69 131           |
| Withdrawals from income of quasi-corporations                  | 185              | 194               | 178              | 124             | 172              |
| Reinvested earnings on foreign direct investments              | - 5 924          | - 99              | 1752             | <b>– 10 058</b> | -6639            |
| Other income   | 129              | 178               | 230              | 171             |                  |
| Investment income attributable to insurance policy holders     | 93               | 147               | 190              | 125             | 106              |
| Investment income payable to pension entitlements              | 0                | 0                 | 0                | 0               | 0                |
| Investment income attributable to investment fund shareholders | 36               | 31                | 40               | 46              | 38               |
| Income from land an subsoil assets                             | 7 742            | 15                | 0.000            |                 | 11               |
| Social contibutions and benefits  Net Social contributions     | 7 7 13<br>7 7 13 | 8 605<br>8 605    | 9 236<br>9 236   | 9 893<br>9 893  | 10 863<br>10 863 |
| Other current transfers  | 5 531            |                   | 6 466            | 6 505           | 7 706            |
| Non-life insurance claims                                      | 3 425            | 3 807             | 3 822            | 3 743           | 3 964            |
| Miscellaneous current transfers                                | 2 106            | 2 507             | 2 644            | 2 762           | 3 742            |
| Capital transfers  | 2 024            | 654               | 1888             | 1985            | 2 090            |
| Investment grants  | 805              | 335               | 512              | 1408            | 672              |
| Other capital transfers  | 1219             | 319               | 1376             | 577             | 1418             |
| Totaal resources   | 1066 921         | 1 131 283         | 1 2 19 4 8 2     | 1245 354        | 1 191 959        |
|  |                  |                   |                  |                 |                  |
| Uses   |                  |                   |                  |                 |                  |
| Intermediate consumption                                       | 553 103          | 593 517           | 635 118          | 647 523         | 614 355          |
| Employee compensation  | 245 789          | 256 050           | 270 292          | 285 359         | 294 333          |
| Wages and salaries   | 195 820          | 204 573           | 215 146          | 226 050         | 232 156          |
| Employers' social contributions                                | 49 969           | 51477             | 55 146           | 59 309          | 62 177           |
| Other taxes on production                                      | 5 570<br>5 570   | 5 829<br>5 829    | 6 276<br>6 276   | 6 567<br>6 567  | 7 280<br>7 280   |
| Non product related taxes on production  Primary income        | 137 640          | 132 524           | 160 275          | 158 923         | 131696           |
| Interest   | 18 653           | 19 632            | 18 839           | 18 397          | 16 617           |
| Adjustment FISIM   | - 11258          | -9979             | -8 395           | -9036           | -9621            |
| Actual interest payments                                       | 29 911           |                   |                  | 27 433          | 26 238           |
| Distributed income of corporations                             | 86 576           | 81658             | 116 885          | 96 892          | 85 003           |
| Dividends  | 84 690           | 79 590            | 114 619          | 94 324          | 82 275           |
| Withdrawals from income of quasi-corporations                  | 1886             | 2 068             | 2 266            | 2 568           | 2 728            |
| Reinvested earnings on foreign direct investments              | 27 748           | 26 710            | 20 686           | 40 626          | 28 639           |
| Other income   | 0                | 0                 | 0                | 0               | 0                |
| Investment income payable on pension entitlements              | 0                | 0                 | 0                | 0               | 0                |
| Income from land and subsoil assets                            | 4 663            | 4 524             | 3 865            | 3 008           | 1437             |
| Current taxes on income, wealth, etc.                          | 18 805           | 18 607            | 20 509           | 24 490          | 21646            |
| current incometaxes  | 18 805           | 18 607            | 20 509           | 24 490          | 21646            |
| Social contributions and benefits                              | 7 713<br>7 713   | 8 605             | 9 236<br>9 236   | 9 893           | 10 863           |
| Net social contributions Other current transfers               | 7 963            | 8 605<br>7 821    |                  | 9 893<br>8 753  | 10 863<br>9 665  |
| Net non-life insurance premiums                                | 3 300            | 3 807             | 3 751            |                 | 3 793            |
| Miscellaneous current transfers                                | 4 663            | 4 0 14            | 4 225            | 5 009           | 5 872            |
| Capital transfers  | 11               |                   | 0                | 9               | 5                |
| Other capital transfers  | 11               |                   | 0                | 9               | 5                |
| Capital formation  | 75 933           | 78 835            | 83 528           | 93 057          | 82 750           |
| Gross fixed capital formation                                  | 72 500           | 75 672            | 79 516           | 86 610          | 82 911           |
| Consumption of fixed capital                                   | 64 663           | 66 699            | 69 916           | 72 630          | 75 502           |
| Net fixed capital formation                                    | 7 837            | 8 973             | 9 600            | 13 980          | 7 409            |
| Changes in inventories an valuables                            | 3 433            | 3 163             | 4 012            | 6 447           | <b>– 1</b> 61    |
| Changes in inventories   | 3 257            | 3 008             | 3 880            | 6 4 19          | - 348            |
| Acquisition less disposals of valuables                        | 176              | 155               | 132              | 28              | 187              |
| Acquisition less disposals of non-produced assets              | 1264             | 1067              | 1648             | 436             | 1352             |
| Totaal uses  | 1053 791         | 1 102 870         | 1 194 858        | 1 235 010       | 1 173 945        |

# 2.B Appendix B: reconsiliation: micro data to sector accounts, vaule added and operation surplus

| million euro |             |                |                      |             |        |                 |                  |            |
|--------------|-------------|----------------|----------------------|-------------|--------|-----------------|------------------|------------|
| Year         | Transaction | uses/resources | extrapolation method | Integration | Sector | sector_accounts | total micro data | unassigned |
| 2018         | D.11        | U              | 216223               | -443        | S.11   | 215146          | 215780           | -634       |
| 2018         | D.12        | U              | 54800                | -210        | S.11   | 55146           | 54590            | 556        |
| 2018         | D.29        | U              | 5796                 | 47          | S.11   | 6276            | 5843             | 433        |
| 2018         | D.39        | U              | -7517                | -1          | S.11   | -7474           | -7518            | 44         |
| 2018         | P.1         | R              | 1083197              | 4929        | S.11   | 1081471         | 1088126          | -6655      |
| 2018         | P.2         | U              | 635090               | 6105        | S.11   | 635118          | 641195           | -6077      |
| 2018         | B.2G        | balance        |                      |             |        |                 |                  | -977       |
| 2018         | B.1G        | balance        |                      | _           |        |                 |                  | -578       |

| million euro |             |                |                      |             |        |                 |                  |            |
|--------------|-------------|----------------|----------------------|-------------|--------|-----------------|------------------|------------|
| Year         | Transaction | uses/resources | extrapolation method | Integration | Sector | sector_accounts | total micro data | unassigned |
| 2019         | D.11        | U              | 223893               | -306        | S.11   | 226050          | 223587           | 2463       |
| 2019         | D.12        | U              | 57650                | 52          | S.11   | 59309           | 57702            | 1607       |
| 2019         | D.29        | U              | 6380                 | -7          | S.11   | 6567            | 6373             | 194        |
| 2019         | D.39        | U              | -7682                | 100         | S.11   | -8064           | -7582            | -482       |
| 2019         | P.1         | R              | 1104173              | 281         | S.11   | 1115509         | 1104454          | 11055      |
| 2019         | P.2         | U              | 626761               | 11830       | S.11   | 647523          | 638591           | 8932       |
| 2019         | B.2G        | balance        |                      |             |        |                 |                  | -1659      |
| 2019         | B.1G        | balance        |                      | _           | _      |                 |                  | 2123       |

| million euro |             |              |                      |             |        |                 |                  |            |
|--------------|-------------|--------------|----------------------|-------------|--------|-----------------|------------------|------------|
| Year         | Transaction | use/resource | extrapolation method | Integration | sector | sector_accounts | total micro data | unassigned |
| 2020         | D.11        | U            | 231238               | 2752        | S.11   | 232156          | 233990           | -1834      |
| 2020         | D.12        | U            | 60876                | 409         | S.11   | 62177           | 61286            | 891        |
| 2020         | D.29        | U            | 6560                 | 785         | S.11   | 7280            | 7345             | -65        |
| 2020         | D.39        | U            | -8770                | -19853      | S.11   | -27489          | -28622           | 1133       |
| 2020         | P.1         | R            | 1074540              | -2207       | S.11   | 1064705         | 1072333          | -7628      |
| 2020         | P.2         | U            | 610622               | 9072        | S.11   | 614355          | 619694           | -5339      |
| 2020         | B.2G        | balance      |                      |             |        |                 |                  | -2414      |
| 2021         | B.1G        | balance      |                      |             |        |                 |                  | -2289      |