

This report has originally been published in STATISTIK AUSTRIA: Statistische Nachrichten 1/2010, pp. 45-63, 2010 and Oesterreichische Nationalbank: STATISTIKEN Q1/10, pp. 43 – 68, both Vienna, 2010, in German language. Translation into English thankworthy was provided by Oesterreichische Nationalbank.

Enterprises

Austria's New Statistics on Foreign Affiliates

Foreign Affiliates in Austria and Austrian Affiliates Abroad:
Methods and Statistics for 2007

ERICH GREUL, THOMAS CERNOHOUS, RENÉ DELL'MOUR¹

In 2007, 19% of all persons employed in Austria's market economy – some half a million people – worked in enterprises majority-owned by non-resident units. While accounting for just 3% of all domestic enterprises classified under sections C to K of the Austrian Statistical Classification of Economic Activities (ÖNACE) 2003, the foreign-controlled enterprises produced roughly one-third of the turnover generated and one-quarter of the gross value added by all enterprises in those sections. Foreign-controlled enterprises, moreover, accounted for more than 50% of corporate research expenditure.

At the same time, enterprises resident in Austria controlled nearly 4,300 enterprises abroad employing roughly 760,000 persons. These foreign affiliates were located in a total of 81 countries throughout the world. The lion's share, though, was sited in Germany, followed by countries in Central, Eastern and Southeastern Europe.

These figures and ratios are some of the key results of Austria's new statistics on foreign affiliates (Austrian FATS statistics) for the first reporting year (2007). For more details see the following report, which was co-authored by staff experts from the Oesterreichische Nationalbank and STATISTICS AUSTRIA and which has been published (in German) both in Statistische Nachrichten (STATISTICS AUSTRIA) and in Statistiken – Daten und Analysen (OeNB).

¹ Erich.Greul@statistik.gv.at; Thomas.Cernohous@oenb.at; Rene.DellMour@oenb.at.

1 Purpose and Objective of the New Statistics

Cross-border direct investment has risen at an extraordinary pace since the late 1980s and has become a key instrument of **economic globalization**. A survey conducted by UNCTAD² found approximately 82,000 transnational companies with some 800,000 foreign affiliates to have employed nearly 80 million people worldwide in 2008. The 100 largest nonfinancial global groups alone employed 15.3 million persons, with as many as 8.9 million persons (58%) thereof working at foreign affiliates. Yet the available statistics on foreign affiliates have not been comprehensive and detailed enough until recently to adequately reflect their economic relevance.

The standard globalization statistics on corporate cross-border holdings used to be the **foreign direct investment (FDI) statistics** within the framework of the balance of payment statistics. Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy.³ FDI statistics – which are typically drawn up by central banks, in Austria by the OeNB,⁴ – confirm the enormous rise in globalization. According to UNCTAD figures, the worldwide stock of FDI expanded tenfold in the past two decades, skyrocketing from a range of USD 1.5 trillion to USD 1.6 trillion in 1989 to between approximately USD 15 trillion and USD 16 trillion in 2008.

FDI statistics are primarily focused on the financial aspects of globalization. However, given the **increasingly complex structure** of multinational corporations and increasing numbers of holding and shell companies, the amounts of capital invested must not necessarily be equated with economic activities. Already the 5th edition of the IMF's Balance of Payments Manual⁵ mentioned that the balance of payments failed to adequately reflect a number of policy-relevant aspects of direct investment, indicating that policymaking might be greatly facilitated by additional corporate surveys collecting data from balance sheets and income statements, or sales, employment and value added figures, etc. (paragraph 384).

Given these recommendations, the OeNB started at a very early point to collect additional indicators of economic activity. However, in the absence of full-fledged requirements, there continued to be a lack of

² United Nations Conference on Trade and Development (UNCTAD): World Investment Report 2009. Transnational Corporations, Agricultural Production and Development, United Nations, New York, Geneva 2009. See p.18 and p.223. Most data based on the most recently available annual reports.

³ Of course, FDI also covers disinvestment – transactions such as the sale of foreign affiliates. To qualify as a direct investment rather than as a (frequently) short-term portfolio investment made to generate a profit, an investment must represent equity entitling the direct investor to at least 10% of the voting power in the direct investment enterprise.

⁴ OeNB: Statistiken Special Issue. Direct Investment 2007; Vienna 2009.

⁵ International Monetary Fund. Balance of Payments Manual, 5th edition, Washington, D.C., 1993, 2005.

uniform, internationally comparable statistical frameworks. Eventually, after nearly ten years of preparatory work, the **OECD** published a Handbook on Economic Globalization Indicators in 2005.⁶

This handbook proposed numerous external trade-related and direct investment-related indicators and suggested classifying economic units as follows:

- foreign-controlled affiliates in the compiling economy,
- affiliates abroad controlled by resident investors,
- parent companies' activities in the compiling economy
- companies without foreign ownership links.

Specifically, the handbook proposed to compile statistics on the Activities of Multinational Enterprises (AMNE statistics) based on data collected on turnover, employment, value added, production value, gross investment in tangible goods and personnel costs. In the case of foreign affiliates controlled by resident investors, coverage of data, as proposed by the handbook, was limited to the number of such enterprises and to turnover and employment figures for reasons of data accessibility.

In parallel to the OECD, **the European Commission** also worked on the implementation of statistics on the activities of multinational enterprises. In this context, Austria participated in a **pilot study**, based on the review year 2001, on the feasibility of such statistics.⁷ Among the reasons the EU cited for the need to implement such statistics were the GATS negotiations, for which a commercial presence abroad was deemed to be a key sales channel, above all for services. Lacking data of its own, the Commission had to rely on partner countries in its negotiations, which certainly weakened its negotiation position.

Finally, the EU issued a regulation in 2007 that established a common framework for the systematic production of annual statistics on the structure and activity of foreign affiliates from the review year 2007.⁸ The **FATS statistics**⁹ represent the implementation almost to the letter of the OECD proposals – with the qualification that

⁶ Organisation for Economic Co-operation and Development (OECD). OECD Handbook on Economic Globalisation Indicators. Measuring Globalisation. OECD 2005.

⁷ Dell'mour, R., Rainer, N. Report on the pilot study "Inward FATS data for Austria for the reference year 2001" (Eurostat Grant 2002.44201.010), Vienna 2004.

⁸ Regulation (EC) No 716/2007 of the European Parliament and of the Council of 20 June 2007 on Community statistics on the structure and activity of foreign affiliates, OJ L 171, 29.6.2007, p.17.

⁹ The acronym originally stood for **F**oreign **A**ffiliates **T**rade in **S**ervices. Although the purpose of the statistics has been broadened significantly since the idea was conceived, the acronym had already become so established among experts that it has become resistant to change. The acronym is therefore currently being read as **F**oreign **A**ffilia**T**es **S**tatistics and, in the term FATS statistics, has thus become a recursive acronym.

they concentrate on just two types of enterprises, namely enterprises resident in the compiling country over which an institutional unit not resident in the compiling country has control (**inward FATS**) and enterprises not resident in the compiling country over which an institutional unit resident in the compiling country has control (**outward FATS**). The FATS statistics are to be drawn up by Member States individually, on the basis of individual enterprises. The aggregated results, which are to be broken down by approximately 50 different activities under NACE, have to be transmitted to Eurostat, the Statistical Office of the European Communities, within 20 months from the end of the reference year.

The implementation of FATS statistics in Austria was mandated by the so-called Auslandsunternehmenseinheitenstatistik-Verordnung,¹⁰ referred to below as the FATS regulation. This regulation provides for the full-fledged national implementation of the European legislation but also contains additional provisions which have been designed to increase the relevance of FATS statistics at the national level.

For legal and practical reasons, the **reporting units** for the FATS statistics are resident units not only for the inward FATS statistics (namely resident affiliates under foreign control) but also for the outward FATS statistics (namely resident enterprises – or resident individuals, foundations and other investors – that control affiliates abroad).

According to international conventions, **control** in this context means the ability to determine the general policy of an enterprise by choosing appropriate directors, if necessary. In this context, enterprise A is deemed to be controlled by institutional unit B when B controls, whether directly or indirectly, more than half of the shareholders' voting power or more than half of the shares of enterprise A. In practice, only specific information is available for statistics, so that as a rule, the exercise of control can be determined only by determining majority ownership.

Foreign control means that the controlling institutional unit is resident in a country other than that in which the institutional unit over which it has control is resident.

Control encompasses both direct and indirect control, the latter meaning control exercised by having voting power in another enterprise that has voting power in the enterprise.

For the FATS statistics, **ultimate control** is relevant, meaning that in a chain of control, the country in which the ultimate controlling institutional unit (or natural person) is resident is the country of control.

¹⁰ Verordnung des Bundesministers für Wirtschaft und Arbeit über die Statistik der Struktur und Tätigkeit von Auslandsunternehmenseinheiten (Auslandsunternehmenseinheitenstatistik-Verordnung), Federal Law Gazette II no. 345/2008 of 30.9.2008.

The FATS regulation cites **STATISTICS AUSTRIA** as being in charge of compiling the FATS statistics for Austria. Under Article 6 of the regulation **STATISTICS AUSTRIA** is, however, required to procure any existing administrative records and statistical data from the **Oesterreichische Nationalbank** to keep the reporting burden low.

The OeNB's data are to be aligned with primary data collected by **STATISTICS AUSTRIA** to develop the features required for the FATS statistics (more details below). Separate surveys are permissible only where secondary data would not provide for meaningful FATS indicators.

The FATS statistics thus opened up a new area of collaboration in the traditional cooperation between the OeNB and **STATISTICS AUSTRIA**, e.g. on balance of payments or national accounts statistics.

2. Methodological Notes

2.1 Inward FATS

Inward FATS describe the activity of foreign affiliates in Austria, i.e. enterprises and branches that are under foreign control (majority ownership). The reference date for the determination of **majority ownership** for the reference year 2007 was December 31, 2007.

The statistics are broken down first by the **economic activity** of the resident foreign-controlled enterprises (currently still according to ÖNACE 2003, which is the Austrian version of NACE Rev.1.1) and second by the **country of location** of the ultimately controlling unit. According to the EU Regulation, both sets of information are to be combined at specified levels of detail – the more detailed the activity breakdown is, the less detailed the geographical breakdown is and vice-versa. Coverage by activity is of **NACE-Rev.1 sections C to K**.

Under the EU Regulation, statistics of the following characteristics are to be compiled **annually** from the reference year 2007:

Number of enterprises

Turnover

Production value

Gross value added at factor cost

Purchases of goods and services

Purchases of goods and services bought for resale in the same condition as received

Personnel costs

Gross investment in tangible goods

Number of persons employed

Moreover, the following R&D data are to be transmitted **every second year** from 2007:

Total intramural R&D expenditure

Total number of R&D personnel

However, R&D data are to be reported to Eurostat only for **NACE-Rev.1 sections C to F**.

In terms of the geographical and activity breakdown, the level of detail and the variables covered, the national regulation conforms to the EU criteria. Where it differs is that the R&D variables are not limited to specific activities, meaning that the R&D data are also to be provided for enterprises in ÖNACE 2003 sections C to K.

As one of the main objectives of the inward FATS statistics is to compare foreign-controlled enterprises **with the entire group of domestic enterprises** covered in structural business statistics, the coverage of, and the definition of the variables in, the Austrian FATS statistics are identical to those of the structural business statistics. Thus, the FATS statistics and the structural business statistics are directly comparable. This means, among other things, that the **target population** of the inward FATS statistics consists of the profit-oriented enterprises classified in sections C to K of ÖNACE 2003.

Because the total population is rather small and national **confidentiality rules** apply, the disclosure of results is limited in some instances (see section 4 Results).

2.2 Outward FATS

The OeNB compiles data on Austrian affiliates abroad within the framework of its direct investment surveys. The scope of this survey is, however, broader than the scope of the FATS statistics, which cover only affiliates abroad in which Austrian owners hold **more than 50%** of the equity capital, i.e. genuinely exercise control.

Like the national regulation, the EU Regulation provides for the compilation of data on the following characteristics:

Number of enterprises

Number of persons employed

Turnover.

These data are to be combined **by activity** (of the foreign affiliate) **and by country of location** (of the affiliate) at various levels of breakdown. As in the case of inward FATS statistics, the more detailed the activity breakdown is, the less detailed the geographical breakdown is and vice versa.

Unlike in the case of inward FATS statistics, though, the coverage is of **NACE Rev. 1 sections C to O**, excluding section L (public administration and defense; compulsory social security).

Whereas the EU concept limits reporting to foreign affiliates in non-EU Member States, the Austrian regulation requires data to be reported also for EU-based affiliates.¹¹ The scope of the Austrian regulation is also broader insofar as FATS data are to be reported not only by enterprises headquartered in Austria but by all resident institutional units that control affiliates abroad (i.e. also by enterprises that are ultimately controlled by foreign investors).

3 Compilation Method – From Identifying Foreign Affiliates to Drawing Up FATS Statistics

The observation units of both the inward and the outward FATS statistics are **enterprises and branches**. In other words, both statistics are based on various sources of corporate information. The results are then aggregated and are disclosed and published at the aggregate level in compliance with national confidentiality provisions.

3.1 Compilation of the Inward FATS Statistics

3.1.1 Identifying Foreign Affiliates

The two major sources of the **inward FATS statistics** are the comprehensive structural business statistics that STATISTICS AUSTRIA collects and the direct investment survey that the OeNB conducts (specifically the data on ownership information). Foreign-controlled enterprises are a subset of direct investment enterprises, which also include minority holdings above a 10% threshold and below the 50% majority holding level. The fact that the OeNB has, for many years, compiled direct investment information on a per-enterprise basis and has included a question on the “ultimate investor” (the ultimate parent company) in its survey, allows the OeNB to analyze multiple minority ownership structures¹² and to **establish the country** in which the ultimate parent is located, as is required for FATS statistics.

As the direct investment survey includes only enterprises above a threshold of EUR 100,000 for equity ownership, instances of “foreign-controlled ownership **below the threshold**” need to be identified for the inward FATS statistics in a second step. This is done by an automated analysis of Company Register data. However, the information available does not allow us to determine whether the corporate headquarters of these generally small enterprises are located in a third country; by default the country in which the institutional unit exercising control is located is, therefore, considered the country of incorporation.

¹¹ Currently, Austria submits data to Eurostat in this form on a voluntary basis.

¹² The direct investment statistics base their determination of “foreign control” only on who the “strategic investors” are. Stock corporations with majority float ownership are **never** subject to foreign control even if nonresidents might own the overwhelming majority of the stock.

In a third step, the enterprises determined on the basis of OeNB surveys and IT-based analyses of Company Register data are checked for any first and second-tier affiliates they may have in Austria. To this end, an algorithm is applied to Company Register data to establish, in a step-by-step procedure, all majority holdings in Austria of the enterprises identified thus far.

The process described above enables the OeNB to eventually **submit a list of all resident foreign-controlled enterprises** to STATISTICS AUSTRIA.

3.1.2 Addition of Characteristics from the Structural Business Statistics

Next, STATISTICS AUSTRIA aligns the OeNB's list of enterprises with the entries in its own company database, the statistical business register, with a view to creating a data set that matches the scope of the relevant annual structural business statistics. The important step here is to identify the units that fulfill the economic statistics criteria of being **“active” business units** in the business register. For the foreign-controlled units thus identified, STATISTICS AUSTRIA is thus able to retrieve the relevant identification and stratification data (above all economic activity as defined in ÖNACE) from its company database.

In some cases in which the control relationship is unclear – e.g. where a change of ownership occurs during the reference year – data are also cross-checked with Company Register data to confirm the classification to the inward or outward FATS. In the case of the reference year 2007, the deadline for such classification was December 31, 2007, as mentioned above.

Next, the list thus compiled is aligned with the units covered in the annual structural business statistics; in the case at hand, those were the statistics for the review year 2007. This step allows individual enterprises that had been underreported to be added to the list. The last step is to flesh out the final list of foreign affiliates with data retrieved from the structural business statistics (i.e. the indicators listed in section 2.1 above).

3.1.3 Addition of Characteristics from the R&D Statistics

Every second year, the data thus obtained must be complemented by information about the **R&D activities of foreign affiliates** in Austria. The deadlines in the EU Regulation were determined in conjunction with the deadlines contained in the R&D statistics, which in turn were determined on the basis of European and national legislation.¹³ To keep the reporting and compiling burden low, the FATS regulation established from the outset that R&D characteristics of foreign affiliates are to be derived from the available R& D statistics. As the R&D

¹³ EU legislation: Decision No 1608/2003/EC of the European Parliament and of the Council concerning the production and development of Community statistics on innovation, OJ no. L 230 of 16.9.2003, p.1, as amended by Commission Regulation (EC) No 1450/2004 of 13 August 2004, OJ L 118 of 23.04.2004, p.23; national legislation: Verordnung der Bundesministerin für Bildung, Wissenschaft und Kultur, des Bundesministers für Verkehr, Innovation und Technologie und des Bundesministers für Wirtschaft und Arbeit über Statistiken betreffend Forschung und experimentelle Entwicklung (F&E-Statistik-Verordnung), as amended, Federal Law Gazette II No. 150/2008 of May 8, 2008.

statistics are only compiled every second year, the relevant R&D data are to be included in the inward FATS statistics every two years as well, starting in 2007 and continuing in odd years.

As mentioned above, these characteristics are

- Total intramural R&D expenditure, and
- Total number of R&D personnel.

Intramural R&D expenditure means that only the expenditure for R&D work done within the company itself must be reported; any outsourced R&D work is excluded to prevent any double coverage. The second characteristic, total number of R&D personnel, refers to employment contracts (“jobs”).

The approach to inclusion of R&D characteristics in the FATS statistics is very similar to that used in the structural business statistics: Using company identification numbers and other information in the business register, the data in both data sets are combined and any discrepancies, e.g. in the definition of the company, the activity classification, etc., are resolved.

In the terminology of the R&D statistics, the data on corporate R&D activities for the most part refer to company R&D, and only a fraction refers to R&D activities in the institutes sub-sector.¹⁴

3.2 Compilation of the Outward FATS Statistics

Compiling outward FATS statistics was not possible in the end without increasing the reporting burden for enterprises somewhat. While turnover and employment figures have been collected for direct investment statistics in the past, coverage used to be limited to first and second-tier affiliates abroad.

For the new outward FATS statistics, it was thus necessary to adapt the respondent population to the new requirements. Specifically, it became necessary to collect the company name, address, employment and sales figures of **all enterprises abroad controlled by Austrian investors**. This increased the reporting burden above all for individual big reporting entities with a complex web of cross-border holdings,¹⁵ but for the bulk of enterprises required to report FATS data, the change has been minimal.

Whereas in the case of inward FATS statistics, there are administrative records available which can be used to ensure the completeness of data sets, the outward FATS statistics are based solely on survey data. At the same time, the outward FATS survey has a low reporting threshold, yet – given the lack of other resources – the final data are not adjusted with separate estimates for any entities not included in the survey. Consequently, the

¹⁴ For a recent work on R&D statistics, see: Schiefer, A., *Forschung und experimentelle Entwicklung (F&E) im Unternehmenssektor 2007*, Statistische Nachrichten, 11/2009, p. 986 ff. and 12/2009, p. 1062ff., Vienna 2009.

¹⁵ Whereas the maximum number of holdings a single enterprise reported before 2007 came to 35, the number has risen to more than 100 as a result of the change in reporting requirements.

outward FATS data are subject to an unknown degree of underreporting, but underreporting probably has a material impact only on one variable, namely the number of enterprises.

For the outward FATS statistics, the OeNB delivers a data set to STATISTICS AUSTRIA that is adjusted for minority holdings. The statistics in line with national and international provisions can easily be compiled on the basis of this data set without any additional processing.

Therefore, although it was not possible to fully prevent putting an additional burden on reporting enterprises, there is no doubt that the close cooperation between STATISTICS AUSTRIA and the OeNB has made it possible for FATS statistics to be drawn up with **a minimum of additional resources and burden for enterprises**, above all considering the alternative, namely an additional survey conducted by STATISTICS AUSTRIA.

4 Results for 2007

4.1 Foreign Affiliates in Austria (Inward FATS Statistics)

4.1.1 Foreign Affiliates Classified by Economic Activity

According to the FATS statistics for 2007, foreign enterprises had set up a total of **8,762 controlled affiliates in Austria**. Between them, these affiliates employed almost **500,000 persons** on an annual average, generated a turnover of roughly **EUR 200 billion** and a gross value added of EUR 40 billion (at factor cost), and spent a total of EUR 7.6 billion on gross investment in tangible goods in 2007 (see *table 1*).

While the inward foreign affiliates

accounted for a mere **3% of all enterprises** engaged in market activities in Austria in 2007 (as covered by the relevant structural business statistics for Austria, using the ÖNACE 2003 classification, sections C - K), as many as **19% of all persons employed** in those industries were on foreign affiliates' payrolls, they generated roughly **one-third of the turnover** reported by those industries, and produced **one-quarter of the gross value added** by those industries (see *table 2*).

These high contributions of foreign affiliates to key economic indicators for Austria reflect both their **above-average size** – with each company employing 57 persons on average, compared with a nation-wide average of just 9 persons employed per firm (see *table 3*) – as well as **the range of activities** on which they tend to focus, which differs significantly from the aggregate patterns.

By individual ÖNACE 2003 sections¹⁶ most foreign affiliates were engaged in trade and repairs in 2007 (3,748 firms or 43% of all foreign affiliates), followed by enterprises conducting real estate, renting and business activities (2,570 firms or 29%) and manufacturing firms (1,098 or 12.5%).

With regard to staffing, the manufacturing industry accounted for the single biggest share of persons employed (180,000 or 36% of all persons employed by foreign affiliates; see *table 1*), followed by trade and repairs (33%) and real estate, renting and business activities (close to 72,000 persons).

Of minor importance among foreign affiliates were the shares of the ÖNACE sections mining and quarrying (0.3% of enterprises, 0.2% of persons employed, 0.3% of gross value added) as well as electricity, gas and water supply (0.4% of enterprises, 0.1% of persons employed, 0.1% of gross value added). Likewise, the shares of construction (2.5% of firms, 2.9% of persons employed, 2.8% of gross value added) and of hotels and restaurants (4.3% of firms, 3.0% of persons employed, 1.2% of gross value added) were rather moderate. Enterprises engaged in financial intermediation, while accounting for just 2.9% of foreign affiliates in Austria, employed 5.9% of those affiliates' personnel and generated as much as 10.6% of their gross value added.

Among foreign affiliates operating in trade and repairs, the majority of enterprises (76%; or one-third of all foreign affiliates in Austria) were engaged in **wholesale trade** (ÖNACE 51), while the largest number of persons employed (close to 100,000; or almost one-fifth of the overall number of persons employed by foreign affiliates) worked in **retail trade** (ÖNACE 52). The second-largest ÖNACE division was other business activities with almost 11% of all persons employed by foreign affiliates, followed by two ÖNACE subsections, manufacture of electrical, electronic and optical equipment (ÖNACE DL) and manufacture of machinery and equipment (ÖNACE DK) with a share of more than 6%, respectively.¹⁷

Measured as a share of industry-wide personnel figures, the shares of foreign affiliates spanned a range from 1% (electricity, gas and water supply) to 28% (manufacturing), which is significant given the size of the manufacturing industry. In some subsections, foreign affiliates accounted for **up to two-thirds** of employment totals in their respective industries: 60% in the case of manufacture of transport equipment (ÖNACE subsection DM), 65% in the case of manufacture of chemicals and chemical products (ÖNACE DG).

In 2007, foreign affiliates in Austria classified in ÖNACE sections C to K (see *table 3*) had an **average company size** of 57 employed persons, compared with just 9 persons employed in all Austrian enterprises (domestic and foreign-controlled units taken together – note that this is a relationship of 6:1). The average firm

¹⁶ In the following we will use “ÖNACE” as a synonym for “ÖNACE 2003” for better readability.

¹⁷ To facilitate comparability and avoid confidentiality constraints, we have disclosed detailed statistics on manufacturing activities for ÖNACE **subsection**s rather than for divisions, as was otherwise the rule. Moreover, readers should bear in mind that any breakdowns below the level of ÖNACE sections are presented without the manufacturing subsections “manufacture of food products; beverages and tobacco” (ÖNACE DA) and “manufacture of coke and refined petroleum products” (ÖNACE DF). Given the limited number of companies operating in those two subsections, it would not have been possible to ensure **confidentiality** otherwise.

size was highest in manufacturing (163 persons employed on average, which is as much as 7.5 times the average number of persons employed by all manufacturing enterprises in Austria) and in financial intermediation (116 persons employed on average, or 6 times as much as all financial intermediaries taken together). At the division level (or at the subsection level for manufacturing), manufacturers of transport equipment had the biggest payrolls (505 persons employed per firm; a relationship of 5:1), followed by insurance and pension funding, excluding compulsory social security (ÖNACE 66) with 362 persons employed (which was an outlier, as this figure was slightly below the industry average), by banking (ÖNACE 65) with 258 persons employed (a relationship of 3:1) and by the manufacture of electrical, electronic and optical equipment (ÖNACE DL) with 234 persons employed (a relationship of 8:1). Retail trade stands out with the single biggest deviation of the average size of foreign affiliates from the respective industry-wide aggregate (17:1), followed by the manufacture of wood and wood products (ÖNACE DD; 15:1).

Measured in terms of **gross value added at factor cost** (see *table 1*), manufacturing affiliates generated the biggest share (43%), followed by trade and repairs (25%), real estate, renting and business activities (13%) as well as financial intermediation (approximately 11%). At 16%, wholesale trade was the ÖNACE division with the biggest weight.

Foreign affiliates contributed more than one-third of the total value added by their industry in both manufacturing (35.7%) and trade and repairs (35.3%). Financial intermediaries, too, visibly exceeded the overall average (24.6%) with a share of 28%. Among some subsectors, foreign affiliates contributed significantly more than half of the value added in their area. Cases in point are the manufacture of chemicals and chemical products (72%), manufacture of transport equipment (68%) and manufacture of electrical, electronic and optical equipment (51%). In addition, a range of other subsections and divisions – wholesale trade (share of 42%), manufacture of machinery and equipment (41%), manufacture of pulp, paper, paper products as well as publishing and printing (ÖNACE DE; 39%), insurance and pension fundings (34%) and the manufacture of textiles and textile products (ÖNACE DB; 33.3%) – contributed at least one-third to the value added by their respective industry. These figures impressively **underline the significance** that foreign affiliates have for the Austrian economy. The figures on gross value added per employed person (see *table 3*) confirm this pattern; in some industries, foreign affiliates achieve 1.5 times as much (construction; sale, maintenance and repair of motor vehicles/motorcycles, retail sale of automotive fuel; air transport) and up to twice as much (activities auxiliary to financial intermediation; ÖNACE 67) as the industry average.

Finally, let us take a look at the figures for **investment**, which is a key indicator both for the prospective development of individual enterprises and the economy as a whole. In this context, the relevant indicator is gross investment in tangible goods (see *tables 1 and 2*). On balance, foreign affiliates accounted for 20% of total gross investment in tangible goods, and for as much as 34% and 33% thereof in trade and manufacturing, respectively. Between them, foreign affiliates in Austria invested EUR 7.6 billion in tangible goods in 2007. Some 45% of this total were invested by firms engaged in real estate, renting and business activities (with real estate and renting being highly capital-intensive industries). The runner-up was manufacturing with

approximately 30% or EUR 2.3 billion. The single-biggest subsection in this respect was the manufacture of chemicals and chemical products (EUR 0.5 billion, which is close to 7% of the aggregated gross investment in tangible goods by foreign affiliates). The same amount was invested in post and telecommunications (ÖNACE 64) in 2007.

4.1.2 Foreign Affiliates by Controlling Country

The **company headquarters controlling** foreign affiliates in Austria (see *table 4*) were located in the following countries:

- Germany (42% of all cases),
- Switzerland (13%),
- the Netherlands, Italy and the U.S.A. (close to 6%, respectively),
- the United Kingdom (4%) and
- France (3%).

This pattern is broadly mirrored by a ranking of personnel shares: Germany (49%), Switzerland (10%), U.S.A. (9%), the Netherlands (5.2%), Italy (4.7%), the United Kingdom and France (approximately 3% each).

A total of 71% of foreign affiliates in Austria were controlled from EU-based headquarters in 2007. Of the remaining 29%, three-fourths of the headquarters were located in Switzerland, Liechtenstein or the U.S.A.

On average, the **largest Austrian subsidiaries** tended to be affiliated with enterprises headquartered in Canada (boasting an average payroll of 259 persons employed), followed by enterprises headquartered in Bermuda and South Africa (176 and 163 persons employed per enterprise, respectively; the number of enterprises was rather small, though) and Finland (129 persons employed per foreign affiliate). The top performers among foreign affiliates in Austria measured in terms of turnover came from the United Arab Emirates and Canada, while firms affiliated with the United Arab Emirates, South Africa, Italy, Australia and Japan generated the highest amount of value added per person employed.

With the exception of Liechtenstein, countries qualified as **offshore financial centers** by the IMF and by the OECD did not play a major role among controlling countries of foreign affiliates in Austria.

4.1.3 R&D Activities of Foreign Affiliates

Based on the data reported on research and development activities for 2007, we identified a total of **459 foreign affiliates** classified in the ÖNACE sections C to K which undertook intramural R&D activities in 2007 (see *table 5*).¹⁸ Between them, they spent close to EUR 2.6 billion and employed more than 19,000 persons who

¹⁸ For further details see Schiefer, A., Forschung und experimentelle Entwicklung (F&E) im Unternehmenssektor 2007 – Teil 2, Statistische Nachrichten, 12/2009, p. 1062 ff., Vienna 2009.

were predominantly tasked with R&D activities. In other words, on an annual average, **one in eight persons** employed by these foreign affiliates was engaged in research and development activities.

In 2007, foreign affiliates in Austria **accounted for more than 50%** (for 53.5%, to be precise) of industry-wide R&D expenditure, even though they represented just 18% of all enterprises reporting R&D activities. The share of R&D personnel was 40% measured by headcount or 46% measured in terms of full-time equivalents.

The industries reporting research activities¹⁹ with the **highest shares of foreign affiliates** were mining and quarrying (ÖNACE section C – share of 91%), firms manufacturing chemicals and chemical products (86%), manufacturers of transport equipment (81%) and manufacturers of electrical, electronic and optical equipment (73%) (manufacturing in total: 63%). The share of persons employed was generally below the R&D levels (outliers: manufacture of other nonmetallic mineral products; miscellaneous manufacturing, recycling; construction), which attests to the **disproportionately high degree of R&D spending** by foreign affiliates.

Manufacturers of office machinery and computers generated more than one-third (37%) of all R&D expenditure by foreign affiliates in Austria. The runners-up were manufacturers of transport equipment (16%) and manufacturers of chemicals and chemical products (14%). On balance, the **manufacturing** industry was thus responsible for 83% of all R&D expenditure by foreign affiliates.

More than two-thirds (69%) of R&D budgets were spent by units whose headquarters were located in one of the other 26 EU countries (see *table 6*), of which more than 50 percentage points were attributable to companies ultimately controlled by German enterprises.

The pattern that emerged among non-EU countries broadly mirrored the patterns established for more general FATS indicators mentioned above. Specifically, more than one-third of R&D spending was ultimately controlled by Swiss entities.

4.2 Foreign Affiliates Abroad (Outward FATS Statistics)

In addition to their domestic activities, enterprises resident in Austria generated a turnover of **EUR 178 billion** through affiliates they have set up in other countries. This amount was equivalent to 29% of the domestic turnover of the enterprises classified under ÖNACE sections C to K. All in all, Austrian enterprises had close to **4,300 foreign affiliates** employing approximately **760,000 persons**, which is roughly 1.5 times the number of persons employed by foreign affiliates in Austria (see *table 7*).

Geographically speaking, those enterprises were largely concentrated in other EU countries, above all in those countries that **joined the EU in 2004 or later** (see *table 8*):

¹⁹ Given the small number of enterprises classified under ÖNACE sections I and J, the relevant data must be treated confidentially and are, therefore, not reflected in the following analyses.

Romania, Hungary and the Czech Republic accounted for approximately 11% each of the persons employed by foreign affiliates of Austrian enterprises (which is equivalent to somewhat more than 80,000 jobs, respectively),

Germany (9%),

Poland (6%),

and Slovakia (5%).

The foreign affiliates reported by Austrian enterprises are located in a total of 81 countries, namely the 26 other EU Member States and 55 countries outside the EU. The EU-based affiliates accounted for approximately 70% of all Austrian affiliates abroad and for 71% of all persons employed by foreign affiliates.

Outside the EU the bulk of Austrian enterprises with majority investments abroad targeted the area of Eastern, Central and Southeastern Europe. As much as 5% of the personnel were attributable to Ukraine, and almost 4% each to Russia and Croatia.

Thus, the share of European countries came to 86% of all foreign affiliates controlled by Austrian parents (90% of persons employed); North and South America and Asia had a share of 6.3% each in the number of foreign affiliates (and an employment share of 4.6% and 4%, respectively); the share of Oceania and Asia was somewhat more than 0.5% in terms of foreign affiliates (and 0.8% or 0.4%, respectively, in terms of persons employed). Overseas, the U.S.A. was the only country in which the number of Austrian affiliates or their personnel figures reached a material size (with a 3% plus share of persons employed and a 3.5% share of affiliates).

The category of offshore financial centers, which offer special tax advantages and are therefore classified separately by the IMF, the OECD, Eurostat and the ECB, is of marginal importance in the outward FATS ranking (just like in the inward FATS ranking; see section 4.1.2). In 2007, less than 3% of all Austrian affiliates abroad were located in offshore destinations, with a share of only 2% in turnover and a share of only 0.3% of the reported personnel figures.

The **average firm size** was highest in Ukraine in 2007 (where Austrian affiliates employed 629 persons on average per enterprise), Belarus (596 persons employed), Romania (539 persons employed) and, with a sizeable margin, Russia (344 persons employed per enterprise).

Broken down by industries (see *table 7*), foreign affiliates of Austrian enterprises had a strong foothold in banking (18% of foreign affiliates' aggregate personnel figures), retail trade (10% of persons employed) and wholesale trade (7% of persons employed). The broad range of manufacturing activities accounted for 44% of persons employed by Austrian affiliates abroad; within this area the single biggest share was attributable to the manufacture of electrical, electronic and optical equipment (7%).

With regard to turnover, foreign wholesale affiliates (ÖNACE 51) of Austrian enterprises reported the highest turnover (with a euro equivalent of EUR 33 billion at average exchange rates, followed by retail traders (ÖNACE 52: EUR 14 billion), firms engaged in the sale, maintenance and repair of motor vehicles/motorcycles and in the retail sale of automotive fuel (ÖNACE 50: EUR 11 billion), manufacturers of machinery and equipment (ÖNACE DK: EUR 11 billion) and manufacturers of chemicals and chemical products (ÖNACE DG: EUR 10 billion). These figures must, however, be interpreted with caution, as turnover in trade industries cannot be compared with turnover in other industries, and as price levels differ across countries.

Within the range of Austrian enterprises controlling foreign affiliates, we can differentiate further between units that are “genuine” Austrian enterprises and enterprises that are themselves subject to foreign control. When limiting the observation to “**genuine**” Austrian enterprises (i.e. to enterprises resident in Austria that are not subject to foreign control), the number of foreign affiliates of Austrian enterprises shrinks from 4,300 to 2,900 foreign affiliates (68%), while the respective personnel figures fall from 479,000 to 280,000 (63%; see *table 7*). In the breakdown by the number of persons employed, the share of trade shrinks (from 17.2% to 11.7%) while the share of banking rises (from 17.9% to 22.0%).²⁰

Summary

In 2007, about 8,800 enterprises resident in Austria were under foreign control, whereas Austrian units controlled 4,300 enterprises abroad. The former were staffed with about 500,000 people and generated a total turnover of almost EUR 200 billion, while the latter employed roughly 760,000 persons and contributed to a total turnover of a little less than EUR 180 billion.

In total, the 8,800 foreign-controlled enterprises resident in Austria accounted for 3% of the total number of Austrian profit-oriented enterprises (NACE Rev.1 sections C-K), 19% of the respective employment, one-third of total turnover, and one-quarter of total value added (at factor cost). They were mainly controlled by headquarters in Germany (42% of the units), Switzerland (13%), the Netherlands, Italy and the United States (6% each), the U.K. (4%), and France (3%).

By 2007, Austrian enterprises had set up affiliates above all in the countries that joined the EU in 2004 or after, namely in the Czech Republic, Hungary and Romania. Affiliates in these three countries accounted for about 11% each of total employment by Austrian affiliates abroad, followed by affiliates in Germany (9% of total employment by Austrian affiliates abroad), Poland (6%) and Slovakia (5%). Germany was also the country with the single biggest number of Austrian affiliates abroad.

These are key results for the first reference year of the newly introduced Foreign Affiliates Statistics (FATS) for Austria, implemented through a close and successful cooperation between STATISTICS AUSTRIA and the

²⁰ Additional tables and charts on both inward and outward FATS are available on the website of STATISTICS AUSTRIA:

http://www.statistik.at/web_en/statistics/enterprises/foreign_affiliates/index.html.

Austrian central bank, the Oesterreichische Nationalbank. The data were produced according to the standards of the new EC regulation on Community statistics on the structure and activity of foreign affiliates.