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## Austrian FDI by main Countries and Industries

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### Abstract

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Austria is not among the top global investors, but it is an important regional player in Central and Southeast Europe. Will it keep that position, or will the regional player develop into a global player? This is the question for the future. Based on OeNB data we have found no indication for Austrian FDI expanding outside Europe. We only observe a shift of new FDI within the CEECs to the East and Southeast. As these are fast growing regions, they provide a good opportunity of internationalization for Austrian companies in the next future. Meanwhile, opportunities in even faster growing Asian countries may be missed. Looking at the relationship between FDI growth on one hand and labour productivity, capital productivity and profitability of subsidiaries on the other, we identified the profitability of subsidiaries as the factor most related to the growth of Austrian outward FDI. As a conclusion of the analysis in this paper, policy may have two tasks. One is to encourage companies that are not active internationally to invest abroad. But one can hardly expect that smaller companies go beyond the neighbouring countries. Therefore, another objective could be to support companies to grow beyond SME size because concentrated capital is necessary to enter more remote investment targets. While financial services and some manufacturing industries have internationally active larger companies, other industries may be hindered in their expansion by small firm size and scarcity of knowledge. Especially high-tech industries may need more venture capital and coaching.

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## **Austrian FDI by main Countries and Industries**

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# Contents

<i>Executive summary</i> .....	1
1 Introduction .....	3
2 General characteristics of investors and subsidiaries .....	4
3 Austrian subsidiary characteristics by countries and geographic regions.....	9
4 Industry specialization of Austrian subsidiaries .....	16
5 Conclusions .....	28
Literature.....	32
Appendix I.....	33
Appendix II.....	34
Box 1 Austrian outward FDI from another viewpoint: investment projects in the OCO Monitor database .....	4
Box 2 More projects, less invested capital in the OCO Monitor.....	7
Box 3 OCO Monitor registers most of the projects in the CEECs .....	12
Box 4 Economic activities in the OCO Monitor database .....	18
Box 5 Most recent manufacturing projects locate primarily in Romania and Hungary (OCO Monitor) .....	21
Box 6 Austrian projects in the ICT and electronics cluster (OCO Monitor) .....	22

## List of Tables and Figures

Table 1	Number of parent corporations and outward FDI stock of medium-sized European countries .....	5
Table 2	Number of Austrian investors and subsidiaries by host region, 2000 and 2005, and average age of subsidiaries.....	6
Table 3	Indicators of Austrian subsidiaries by main destinations, share in world total, % .....	10
Table 4	Efficiency indicators of Austrian subsidiaries, 2000-2005, by host economies (data weighted by the share of Austrian capital in the nominal capital of subsidiaries).....	13
Table 5	Productivity, profitability and capital increase by regions compared to the average (Bold script = equity capital share of region in total increase 2000-2005).....	14
Table 6	Share of main activities in outward FDI stock, Austria and developed countries, % .....	16
Table 7	Number of Austrian investors and subsidiaries by activity, 2000 and 2005 .....	17
Table 8	Equity capital of Austrian subsidiaries by activity and country, EUR million, 2005 .....	20
Table 9	Main characteristics of Austrian subsidiaries by economic activities, shares in total (%), and profitability, 2000 and 2005.....	23
Table 10	Profits per equity capital by country and activity, 2005.....	27
Table A	Austrian FDI projects, 2003-2007 .....	7
Table B	Austrian FDI 2003-2007 by host region .....	12
Table C	Number of Austrian FDI projects by year and host country in 2003-2007 .....	12
Table D	Leading industry sectors in 2003-2007, % of total.....	18
Figure 1	Turnover and Employment of Austrian Manufacturing. Subsidiaries, 2000 and 2005 .....	24

## **Executive summary**

*This paper deals with the main features and directions of development characterizing Austrian outward FDI. The analysis relies mainly on data derived from the OeNB survey of Austrian investors and their foreign subsidiaries. In addition, we present some more recent trends based on company reports included in the OCO Monitor database. Policy recommendations are necessarily tentative as they are based on limited information.*

*Austria is not among the top global investors, but it is an important regional player in Central and Southeast Europe. Will it keep that position, or will the regional player develop into a global player? This is the question for the future. In the present research we have found no indication for Austrian FDI expanding outside Europe. We only observe a shift of new FDI within the CEECs to the East and Southeast. As these are fast growing regions, they provide a good opportunity of internationalization for Austrian companies in the next future. Meanwhile, opportunities in even faster growing Asian countries may be missed as suggested by the fact that from 2000 to 2005 equity capital of Austrian subsidiaries declined even in nominal terms in this region.*

*The geographically concentrated pattern of Austrian outward investment activity is characteristic of small developed countries with few globally active transnational corporations. Austrian investors are to 60-70% SMEs but these control only a relatively small part of the invested capital. The share of SME investors is highest in advanced host countries. In less developed and more remote destinations the share of SME investors is relatively small. This suggests, that investing in more remote countries may require larger size to cope with more complex problems.*

*Most Austrian FDI projects are market seeking, they sell mainly on the local markets of the host countries. This is a logical consequence of the activity structure of investments dominated by real estate, financial and other services. The other type of FDI, the export oriented, efficiency seeking one with a labour cost motive is marginal, except in neighbouring Czech Republic, Hungary and Slovakia, recently also in Romania. There is no sign that other countries like those in the Western Balkans would become targets for labour-intensive production: the number of Austrian manufacturing subsidiaries is rising very slowly possibly due to relatively high local wages. Labour-intensive manufacturing production expands recently in Asia with the aim to sell on the local market.*

*Looking at the relationship between FDI growth on one hand and labour productivity, capital productivity and profitability of subsidiaries on the other, we identified the profitability of subsidiaries as the factor most related to the growth of Austrian outward FDI. Outstanding profitability can explain the rapid growth of Austrian investments in Switzerland, Poland and the CIS countries. But countries not providing high profits at the*

*moment may just have the best potential, like Romania and Bulgaria where Austrian FDI per GDP is still low, but rapidly increasing.*

*As a conclusion of the analysis in this paper, policy may have two tasks. One is to encourage companies that are not active internationally to invest abroad. But one can hardly expect that smaller companies go beyond the neighbouring countries. Therefore, another objective could be to support companies to grow beyond SME size because concentrated capital is necessary to enter more remote investment targets. While financial services and some manufacturing industries have internationally active larger companies, other industries may be hindered in their expansion by small firm size and scarcity of knowledge. Especially high-tech industries may need more venture capital and coaching. Currently the natural direction of development to increase Austrian investment activities are the more remote CEECs. It would be desirable to develop a more global footing especially in Asia, where profits are already high and markets boom.*

**Keywords:** *Austria, FDI, productivity, profitability, economic policy*

**JEL classification:** *F21, F23, L21, L25, L60, L80*

## Austrian FDI in selected countries and industries

### 1 Introduction

The aim of this paper is to identify the main features and directions of development characterizing Austrian outward FDI, its regional and sectoral specialization, size structure and investment motivation. Developments of the last few years will be used to make some tentative forecasts.

We rely mainly on the FDI subsidiary database of the Austrian National Bank (Oesterreichische Nationalbank, OeNB) which includes the results of surveys on Austrian subsidiaries abroad.<sup>1</sup> The most recent data published in September 2007 refer to 2005 which we use to characterize the 'present situation'. The database covers foreign subsidiaries of Austrian firms in which the share of the Austrian investor is at least 10% of the nominal capital in the subsidiary, and the amount of nominal capital in the subsidiary is at least EUR 72,000. Thus the sample is biased towards larger companies. But in terms of FDI stock, not much information is lost as the amount of Austrian equity capital in foreign subsidiaries in 2005 amounted to only about 5% less than the outward FDI stock published in the international investment position.

Having found the database representative enough, the next question is, what period of time should be selected as a basis for predicting future opportunities? It is obviously not necessary to go back far in time – Austrian outward FDI became important only after 1990 when the Central European transition countries opened up to FDI. The early entry period took place in circumstances much different from the present ones, and the directions of Austrian FDI have underwent important changes more recently. Based on proximity, Austrian investors gained important first-mover advantages and accumulated knowledge which they later utilized in more remote and more backward transition countries in Southeast and Eastern Europe. In 2005 the total amount of Austrian equity capital in subsidiaries abroad reached EUR 53 billion, more than double the EUR 24 billion in 2000. Subsidiaries' turnover doubled as well, their employment increased 74%, and profits jumped fourfold. Because of that rapid increase in Austrian FDI in recent years, we do not consider it necessary to go back in time to years prior to 2000. Changes between 2000 and 2005 will be discussed as "recent trends".

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<sup>1</sup> OeNB Sonderheft Statistiken, *Direktinvestitionen 2005*, published in September 2007. By courtesy of OeNB we had access to a more detailed database. It comprises data for 15 countries or groups of countries (see Appendix I) and 21 economic activities (NACE 1-digit for all activities, NACE 2-digit for manufacturing, see Appendix II) where the number of Austrian affiliates is higher than three. All data in this paper, unless otherwise indicated, come from this database. The source of all tables, if not otherwise indicated, is the OeNB.



The method of research in this paper is descriptive, grouping information in a way to reveal characteristic trends and features. Statistics will be quoted to characterize the industry and destination pattern of Austrian FDI. The results are less of general scientific validity, more of practical relevance. Outliers are not dropped out, but treated as novelty calling for explanation.

Section 2 looks into the distribution of subsidiaries by different indicators. The subsequent two sections examine the characteristics of Austrian subsidiaries by location and by economic activity. The paper closes with conclusions.

**Box 1**

**Austrian outward FDI from another viewpoint: investment projects in the OCO Monitor database**

Further to the OeNB, FDI related information is compiled by the OCO Consulting Ltd. ([www.ocomonitor.com](http://www.ocomonitor.com)). This relies on press reports and company home-pages. The two databases differ a lot in their methodology and time coverage and provide a somewhat different picture about Austrian FDI abroad. While the most recent OeNB data are for 2005, the OCO Monitor data available at the time of writing ranges to the end of 2007 and it is updated almost daily. They rely on published data, thus individual investment projects and investors can be identified unlike in the OeNB database. OCO Monitor does not apply a size limit thus includes also small ventures. A further difference is that OeNB compiles all investment data in new and old subsidiaries, while OCO Monitor compiles information only on new projects disregarding capital increases. The OeNB strictly applies the rules of balance of payments statistics. For OCO Monitor no such international norms are binding and the project coverage may be sporadic. Data refer to investment commitments which may not always be realized. Despite all these methodological problems, OCO Monitor contains valuable, future-oriented information which will be presented in further boxes throughout this paper.

## **2 General characteristics of investors and subsidiaries**

The *number of Austrian investors* rose to 1048 in 2005, from 917 in 2000. That increase does not represent a large number of new investors, meaning that FDI expanded more by investments of existing firms than by firms which had not been internationally involved before. Other tens of thousands of Austrian firms are either too small to be covered by the OeNB database or do not engage in international investment activity. The *number of Austrian subsidiaries* abroad increased from 2300 in 2000 to 3100 in 2005 (Table 2), much more rapidly than the number of investing firms. Thus the number of subsidiaries per investor rose from 2.5 to three. Those firms that had gained experience in investing abroad have moved to new destinations more often than new investors appeared.

The number of Austrian investors is not large in a *European comparison*. Among the nine medium-sized European countries for which data are available, Austria ranks 7<sup>th</sup> in terms of the number of parent companies and 8<sup>th</sup> in terms of outward FDI stock (Table 1). Other countries with more investors and higher FDI stocks house the headquarters of large multinational companies which operate regional or global networks from that country. Large multinationals can also be winners of international mergers and acquisitions (M&A) which is a main driving force of global FDI. Recent data reveal that in 2006 and 2003 there

was no Austrian investor among the acquiring companies in cross-border M&A deals larger than USD 1 billion; there were two in 2004, and three in 2005 (UNCTAD, World Investment Report 2004, 2005, 2006, 2007). In addition, we find no Austrian company either among the world's largest 100 non-financial transnational corporations or among the 50 largest financial corporations. By any comparison, Austria is not among the global players in terms of FDI. It is, however, an important regional player. Will it maintain that position or will regionally successful investors develop into global players? This is an important question for the future. In the more detailed presentation below we shall find no indication for a change; Austrian investors tend to stay within the larger Europe.

Table 1

**Number of parent corporations and outward FDI stock of medium-sized European countries**

Country	Year (latest)	Number of parent corporations	Outward FDI stock USD million	Outward FDI stock per GDP, %, 2006
Austria	2005	1048	67243	24
Belgium	2003	991	248367	100
Finland	2005	950	74413	43
Greece	2005	240	13345	7
Netherlands	2006	4788	652633	98
Norway	2004	1346	72109	36
Portugal	2005	1300	44457	28
Sweden	2002	4260	144363	68
Switzerland	2006	2616	545401	144

Source: UNCTAD World Investment Report 2004, 2005, 2006, 2007.

Despite the relatively low amount of outward and also inward FDI, Austria is the second most globalized country in the world (ETH, 2007) – not so much in economic terms (rank 9, just behind Hungary) but in social terms, meaning personal contacts with the outside world, information flow and cultural proximity. Similar is Austria's rank in the AtKerney (2007) globalization index: 15 for trade and 18 for FDI, but 2 for the political and 4 for the personal dimension. Turning around the message of these indicators, internationalization in social and political terms is in place to support economic internationalization.

Information on the number of subsidiaries and the number of Austrian investors, just like for other indicators, is available in the OeNB database for *15 countries and regions* of the world (Table 2 and Appendix I). As of 2005 the highest number of investors are present in Germany and in Hungary, and these are also the countries with the highest number of Austrian subsidiaries. About 30% of investors have a subsidiary in one of these countries, and about 14% of all subsidiaries are active there. In Germany both numbers have grown rapidly in the past five years. This may have to do with the specialization on real estate and business services as well as trade-related investments where it is common practice to set

up a separate subsidiary for each business. The proliferation of subsidiaries in the Rest of Europe may have the same reason, but here they are spread about several countries.

As to Hungary, there has been practically no growth in the number of investments and investors between 2000 and 2005 although the amount of Austrian FDI more than doubled. This can be understood as a kind of saturation. Three other CEECs, the Czech Republic, Poland and Slovakia witnessed rapid increases in the number of investors and subsidiaries. The Czech Republic may come close to the Hungarian indicators in the near future. The Western Balkans as well as Romania+Bulgaria are upcoming new destination according to the increase of the number of investors and subsidiaries. But in 2005 the number of investors reaches only about one third and the number of subsidiaries less than one half of those in Hungary or Germany.

Table 2

**Number of Austrian investors and subsidiaries by host region, 2000 and 2005,  
and average age of subsidiaries**

Region	2005	2000		2005		Change in number 2000-2005	
	Average age of subsidiary	No. of subsidiaries	No. of investors	No. of subsidiaries	No. of investors	No. of subsidiaries	No. of investors
DE	9.6	330	254	445	329	115	75
HU	8.6	392	307	403	313	11	6
CZ	8.2	287	234	346	261	59	27
PL	6.3	115	93	157	122	42	29
SK	6.9	108	96	157	128	49	32
SI	7	72	67	96	91	24	24
CH	9.4	122	117	147	129	25	12
Baltics	4.7	8	7	21	13	13	6
RO+BG	3.8	68	47	145	93	77	46
Rest-Europe	8	391	239	534	294	143	55
Rest-Dev	9.8	129	97	137	101	8	4
West Balkan	4.8	84	63	192	110	108	47
CIS	5	36	26	91	62	55	36
Asia	5.9	74	52	116	73	42	21
RoW	7.1	86	62	116	81	30	19
<i>Total</i>		<i>2302</i>	<i>917</i>	<i>3103</i>	<i>1048</i>	<i>801</i>	<i>131</i>

For explanation of country abbreviations see Appendix I.

Total number of investors excludes double counting.

Source of all tables, if not otherwise indicated, is the OeNB.

The number of subsidiaries and of investors per host region expresses the *intensity of the Austrian presence*. This decreases with the distance from Austria and forms geographic belts of FDI around Austria. The farther we move, the lower the number of investors and subsidiaries. The belts have a West and an East European segment with different

structures of investments. The first belt comprises the neighbouring countries with the most intensive Austrian presence, including Germany and Switzerland in the West and Hungary, the Czech Republic, Slovakia and Slovenia in the East. The second belt is represented by the Rest of Europe on the one hand and Croatia, Poland and Romania+Bulgaria on the other. Here the number of investors and subsidiaries is smaller than in the first belt but increasing more rapidly. Beyond this belt, especially in countries outside Europe, the Austrian presence is meagre. The importance of geography can be illustrated by the fact that more Austrian companies invested in Slovakia than in the Western Balkans. In turn, the number of investors in the Western Balkans surpassed that in Asia.

**Box 2**

**More projects, less invested capital in the OCO Monitor**

OCO Monitor reported a total number of 1106 investment projects by 344 Austrian companies between 2003 and 2007; much more investors and slightly more new projects than the OeNB for a somewhat earlier five-year period. It is justified to think that not only the period of time but also the methodology explains this difference as it holds also for the overlapping years of 2004 and 2005.

Table A

**Austrian FDI projects, 2003-2007**

Year	Number of projects	Invested capital, USD mn	Number of jobs created
2003	151	7,640	3,609
2004	208	5,000	5,156
2005	223	5,620	5,146
2006	282	10,360	6,269
2007	242	10,360	12,214
Total	1,106	38,980	32,394

*Remark:* Job and capital data are not captured for all projects.

*Source:* OCO Monitor™ ©2001-2007.

According to OCO Monitor the amount of Austrian capital invested abroad was USD 39 billion in five years and the number of jobs created abroad was 34 thousand in 2003-2007 (Table A.). For overlapping years the number of jobs created is smaller than what the OeNB reports most probably because OCO Monitor data do not contain the employees taken over in a M&A deals while they are included in the OeNB data.

Investment activity is reported to have intensified in the last two years: the amount of investment was two times higher than earlier and the number of jobs created increased especially in 2007. The upswing is mainly due to committed but not yet implemented real estate investments in Bulgaria and Hungary.

As to the *form of entering* a host country, it may take place by greenfield investment or merger and acquisition (M&A) including privatization. Greenfield investment is dominant but M&A is the increasingly important form of entry in most host countries. M&A is the dominant form of entry in developed countries, with more than 50% of Austrian subsidiaries established in this way in Germany and Switzerland, but also in Poland. The overall share of M&A increased from about 40% in 2000 to 45% in 2005. New Austrian FDI

projects occur more often than before in the form of M&As, in particular in countries where the number of Austrian affiliates is rapidly increasing such as Germany, Switzerland, “Rest-Europe” and the Western Balkans. Increasing significance of M&A is in line with the general European trend of company concentration as well as with more frequent privatizations in the Western Balkans. In countries where privatization offers are not frequent, such as Hungary, the CIS or the Baltic states, the share of this entry mode stays below 40%.

The main  *motive of entry* of Austrian capital as of end-2005 was market access for almost 60% of the nominal capital and 70% of the subsidiaries<sup>2</sup>. Other motives include raw material supply (2.6% and 3.3% respectively) and labour cost (0.9% and 2.9%). Market access has been the leading motive in the new EU member states (NMS), which coincides with the high share of services in the investments. In developed countries other than market-seeking motives can be just as important, but have not been revealed by investors. The generally low importance of labour cost as an entry motive is in line with the low share of efficiency-seeking, export-oriented manufacturing FDI. Both manufacturing FDI and labour cost motivation concentrate in the closest Eastern neighbouring countries. Labour cost motivated the establishment of 7% of the subsidiaries in the Czech Republic, Hungary and Slovakia. Even in these countries, the importance of the labour cost motive has been decreasing. Measured by the amount of invested capital, this motive is of even lower significance; it is highest in Hungary with 5% of the invested capital. There are signs that Romania is emerging as a further target of Austrian efficiency-seeking investments. Data reveal that the labour cost motive becomes more important in this country and the number of manufacturing sector subsidiaries increases rapidly. Romania features lower labour costs, although rapidly increasing wages if compared with the first-tier neighbours of Austria. There is no sign that the West Balkan countries could also emerge as possible targets for labour-intensive production. The number of manufacturing subsidiaries is rising very slowly and the labour cost motive is rarely mentioned. In this region conditions for doing business are worse while wages are higher than in Romania or Bulgaria which deter investors with no direct interest in the local markets.

In terms of  *size*, Austrian investors are predominantly SMEs<sup>3</sup> and the same is true for their subsidiaries. Differences appear between industries according to the branch-specific size structure of firms<sup>4</sup>: the share of SMEs is lower in concentrated industries such as the chemical industry (55%) and in financial intermediation (60%) than in real estate and other services (83%) or in car manufacturing (77%). We can observe a certain time pattern as well: in early years following market entry the share of SMEs tends to be large; after consolidation it declines; and when entry conditions become more simple it increases

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<sup>2</sup> 23% of the subsidiaries with 36% of the nominal capital did not reveal their motive of investment.

<sup>3</sup> SMEs (small and medium-sized enterprises) are companies with less than 250 employees.

<sup>4</sup> We have no comparison with the overall size structure of Austrian firms.

again. As for the target countries, the share of SME investors is high in advanced destinations, primarily in Germany (73%), the Czech Republic and Switzerland. This coincides with a rapid growth in the number of subsidiaries. The SME share is stagnating at above 70% in Hungary, Poland and Slovakia. In more remote destinations the share of SMEs is smaller, about 65% in Rest-Europe, Romania+Bulgaria, the Western Balkans and Asia. There is a connection between firm size and distance from Austria. Being an SME may not hinder foreign expansion to neighbouring countries, but entering more remote destinations may require larger size to be able to solve more complex problems. As confirmed by a recent survey, internationalization is first of all a characteristic of large firms (Mayer and Ottaviano, 2007). Thus, it would be necessary for Austrian companies striving for a wider international presence to grow in size.

### **3 Austrian subsidiary characteristics by countries and geographic regions**

We have identified 15 countries and regions in the world in which the number of Austrian subsidiaries is high enough to allow for a breakdown of data also according to economic activity. Indicators include equity capital, turnover, employment and profits minus losses (Table 3).<sup>5</sup> All data are weighted by the Austrian capital share in the nominal capital of the subsidiary. In this section we analyze the indicators by host country or region, in the next one also by economic activity.

In 2005, 50% of the equity capital of the Austrian subsidiaries concentrated in the *developed countries*<sup>6</sup>, down from 60% in 2000. In terms of turnover the share of developed countries in 2005 was higher, 58%, and the decrease of this share compared to 2000 was modest. Employment is relatively low in developed countries, only 26% of the foreign employment of Austrian subsidiaries, down from 31%. As to the countries and sub-regions, the share of Germany and of Rest-Europe significantly decreased by all indicators while the share of Switzerland increased. In terms of profits minus losses, the share of Switzerland and of Rest-Europe increased while in Germany losses prevailed over profits in 2005. The latter may have been the result of the bad overall economic situation in that particular year. Austrian subsidiaries in developed countries show higher capital intensity and higher labour productivity than in other host regions. This can to a large extent be explained by the industry composition of subsidiaries. Real estate and other business services investments, which are very capital intensive, are over-represented here as compared with less developed regions. Also comparative advantages would suggest to locate labour-intensive activities in less developed countries and capital-intensive activities in developed, high-wage countries.

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<sup>5</sup> Also available are data on intra-firm trade (between the Austrian mother company and the foreign subsidiary) and trade in patents, but these amounts are very low thus we do not include them in our analysis. The share of SMEs among subsidiaries is also; it is mostly above 80%.

<sup>6</sup> Including Germany, Switzerland, Rest-Europe, Rest Developed Countries.

While the importance of developed countries for Austrian outward investment decreased, the new EU member states and other CEECs gained shares. The *NMS-8* concentrated 23.5% of the equity capital of Austrian subsidiaries in 2000, increasing to 27.2% in 2005. Within the region, a shift took place from the more traditional destinations such as Hungary and Slovenia to more recently discovered targets such as the Czech Republic, Poland and Slovakia. In contrast to capital, the turnover share of the *NMS-8* decreased on the whole, most notably in the case of Hungary and the Czech Republic, but it slightly increased for Slovakia, Slovenia and the Baltic states. The earlier low wage, less capital intensive locations became with time more capital intensive with higher labour productivity.

Table 3

**Indicators of Austrian subsidiaries by main destinations, share in world total, %**

	Equity capital		Turnover		Employment		Profit – loss	
	2000	2005	2000	2005	2000	2005	2000	2005
DE	19.8	12.4	19.6	17.2	14.0	10.1	23.8	-2.0
HU	7.3	7.0	13.5	10.3	19.5	12.9	14.5	9.1
CZ	8.0	9.1	10.6	8.0	20.0	14.3	13.5	13.2
PL	3.3	5.3	4.0	3.4	8.4	5.8	5.6	9.8
SK	2.5	3.7	3.3	3.6	6.4	7.0	5.7	5.2
SI	2.4	2.0	1.6	2.0	2.3	1.8	3.7	1.4
CH	3.8	7.5	8.4	18.3	1.2	2.1	6.0	14.1
Baltics	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.2
RO+BG	1.3	8.1	1.1	5.2	3.5	14.3	-0.8	8.3
Rest-Europe	27.9	24.4	17.9	14.1	9.2	9.2	7.4	18.6
Rest-Dev	8.7	5.6	14.6	8.2	6.2	4.2	-3.3	1.8
West Balkan	2.0	6.0	1.7	3.5	2.7	6.9	2.8	8.9
CIS	1.0	2.6	0.8	1.9	2.5	7.2	3.6	4.4
Asia	2.5	0.9	1.1	0.8	2.3	2.1	2.2	1.2
RoW	9.5	5.3	1.8	3.3	1.5	1.9	15.3	5.9
<b>All</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*Remark:* Data weighted by the Austrian share in the nominal capital of the subsidiary.

For explanation of country abbreviations see Appendix I.

Large capital, turnover and employment share gains were booked in the *other CEECs* including Romania and Bulgaria, the Western Balkans and the CIS countries. Austria is a leading investor in the Western Balkans and almost the leader in Romania+Bulgaria. Despite growing Austrian penetration in the CIS, these countries are still marginal destinations compared to the geographically closer CEECs.

Another distinctive feature of Austrian outward FDI is that *Asian countries* including China have small and declining shares in subsidiary capital, turnover and employment. This is

against the global trend of rapidly expanding FDI in Asia and may therefore constitute an unfortunate development for Austria. From 2000 to 2005, Austrian subsidiaries' equity capital in Asia declined even in nominal terms. The 2005 devaluation of the USD against the euro must have played a significant role in this. The decline concentrated in real estate and other business services investment while machine building and electronics investments expanded (see section 3). Employment and turnover increased in Asia in nominal terms, but at a slower rate than in other FDI destinations. The *rest of the world (RoW)*, including Latin America and Africa, is a declining destination in terms of invested capital, but has increasing shares in turnover and employment. In the early 2000s equity capital increased in nominal terms, but by 2005 it had fallen to half its value, back to the level of 2000. This setback was mostly due to negative financial sector investments. Increasing employment and turnover particularly in trade and real estate and other business services suggest more efficient use of existing capital. Without new investments output may not rise on the longer run, and new investments may not happen due to rapidly declining profits.

Looking into the development of *subsidiary employment* in more detail, this shows a marked and increasing dominance of the CEECs. Employment in Austrian subsidiaries (weighted by the Austrian share in nominal capital) over the world increased from 247 thousand in 2000 to 432 thousand in 2005, by 73%.<sup>7</sup> All geographic units shared this trend, though to different extents. In 2005 the position of the NMS-8 became dominant: they concentrated 56% of the total foreign employment. Within this, 14% was located in the Czech Republic and Romania+Bulgaria (62 thousand persons each) and 13% in Hungary. Growth was fastest in Romania+Bulgaria, the CIS and the Western Balkans, mainly due to new acquisitions in these regions.

Domestic and foreign employment of Austrian investors was roughly equal in 2000, but in 2005 foreign employment surpassed domestic employment of investing companies by almost 50% while also Austrian mother companies increased employment. Foreign employment may rise through the relocation of production to low-cost countries, by the acquisition of a company in the host country, or by establishing of new subsidiaries to serve new markets. High increase in employment is mostly due to the acquisition of companies with often inefficiently high employment levels. Takeover is usually followed by restructuring and layoffs in the newly acquired firms.<sup>8</sup> The slow increase in employment in some 'old' FDI destinations such as the developed countries and Hungary indicate that labour saving restructuring has been implemented and the number of new investment projects is small.

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<sup>7</sup> This covers both the change in employment in existing subsidiaries and the employment of new subsidiaries.

<sup>8</sup> By acquiring the Romanian Petrom in 2004, OMV took over 50 thousand employees. Their number declined to 44 thousand in 2005 and to 33 thousand by the end of 2006. Spin-off of parts of the company was more frequent than simple layoff of persons.



**Box 3****OCO Monitor registers most of the projects in the CEECs**

As to the regional distribution of new projects, OCO Monitor reports relatively more Austrian investment in CEECs and less in developed countries than the OeNB. The CEECs are the dominant investment target with 71% of the projects, 82% of the invested capital (Table B); in the OeNB their share is only 55% for a partially different five-year periods. Among the target countries the largest number of projects appear in Hungary, followed by Romania (Table C.). There are increasing number of projects in Romania, Slovakia, Poland and Russia – this is basically the same regional shift within the CEECs as the OeNB database shows. The exception is Hungary which is more prominently ranked in OCO Monitor. Opposite to the OeNB, OCO Monitor knows about very few Austrian investment projects in Germany and in Switzerland. The difference can stem from different recording of headquarters or other transactions which are not treated as investment projects by the OCO Monitor but reported as capital transfer by the OeNB.

Table B

**Austrian FDI 2003-2007 by host region**

	Project number, %	Invested capital, %	Jobs created, %
CEECs	70.7	82.0	76.0
Western Europe	14.4	9.3	8.7
Asia-Pacific	9.0	6.7	11.6
North America	2.1	1.6	2.7
Other	3.8	0.4	1.0
Total	100.0	100.0	100.0

*Remark:* Jobs and investment data are not captured for all projects

*Source:* OCO Monitor™ ©2001-2007.

Table C

**Number of Austrian FDI projects by year and host country in 2003-2007**

	2003	2004	2005	2006	2007	Total
Hungary	23	41	38	41	27	170
Romania	4	13	19	42	41	119
Slovakia	7	11	19	21	13	71
Russia	6	17	16	15	15	69
Bulgaria	12	10	7	19	14	62
Czech Republic	7	16	9	15	9	56
Germany	9	11	11	11	14	56
Poland	4	9	8	14	15	50
China	7	11	6	9	4	37
Croatia	10	2	10	9	5	36
Other countries	62	67	80	86	85	380
Total	151	208	223	282	242	1,106

*Source:* OCO Monitor™ ©2001-2007.

Asian countries are more significant in the OCO Monitor than in the OeNB database. China is the most important destination with 37 projects closely followed by India. China stands out even more in terms of invested capital and job creation, but in 2007 India became prominent in these respects. Most of the investments in China are manufacturing projects: large and medium size Austrian companies enter the local market by producing on the spot. In India earlier projects were predominantly in services, but in 2007 construction material producers appeared.

Despite the shift to cheaper locations with labour-intensive subsidiaries, turnover per employment rose between 2000 and 2005 (Table 4). *Labour productivity* increased in all geographic regions, but the differences among countries increased. In 2005 the highest labour productivity was achieved in Switzerland, followed by Rest-Developed and Rest-Europe. Labour productivity was below the average in the NMS except in Slovenia and especially low in the CIS and Asia. Those differences reflect the productivity gaps between richer and poorer countries and are influenced by the activity composition of subsidiaries.

Table 4

**Efficiency indicators of Austrian subsidiaries, 2000-2005, by host economies**

(data weighted by the share of Austrian capital in the nominal capital of subsidiaries)

**A**

	Turnover per employee EUR million	Turnover per equity capital	Profit per equity capital
2000	0.17	1.75	0.06
2001	0.18	1.71	0.05
2002	0.19	1.55	0.08
2003	0.20	1.59	0.08
2004	0.22	1.73	0.09
2005	0.23	1.88	0.10

**B**

	Turnover per employee EUR million		Turnover per equity capital		Profit per equity capital	
	2000	2005	2000	2005	2000	2005
DE	0.23	0.39	1.73	2.60	0.07	-0.02
HU	0.12	0.19	3.24	2.76	0.11	0.13
CZ	0.09	0.13	2.32	1.65	0.10	0.14
PL	0.08	0.13	2.08	1.20	0.10	0.18
SK	0.08	0.12	2.31	1.82	0.13	0.14
SI	0.12	0.26	1.19	1.88	0.09	0.07
CH	1.19	2.02	3.90	4.58	0.09	0.18
Baltics	0.12	0.16	2.96	3.58	-0.03	0.27
RO+BG	0.05	0.08	1.53	1.21	-0.04	0.10
Rest-Europe	0.32	0.35	1.12	1.09	0.01	0.07
Rest-Dev	0.40	0.46	2.93	2.77	-0.02	0.03
West Balkan	0.11	0.12	1.49	1.10	0.08	0.14
CIS	0.05	0.06	1.36	1.42	0.20	0.17
Asia	0.08	0.09	0.81	1.70	0.05	0.13
RoW	0.20	0.41	0.33	1.16	0.09	0.11
<b>All</b>	<b>0.17</b>	<b>0.23</b>	<b>1.75</b>	<b>1.88</b>	<b>0.06</b>	<b>0.10</b>

For explanation of country abbreviations see Appendix I.

*Capital productivity* (turnover per equity capital) increased less than labour productivity. Between 2000 and 2005 it rose in all the main developed country destinations including Germany and Switzerland. In some CEECs capital productivity declined (Hungary, the Czech Republic, Slovakia, the Western Balkans) while it increased in others. Higher than average capital productivity appeared in Germany, Switzerland and the developed countries outside Europe, as well as in Hungary and the Baltic states. *Return on capital* of Austrian subsidiaries improved a lot between 2000 and 2005 as a result of profits rising much more strongly than invested capital. This can be interpreted as a success of business activity and also as a stimulus for further investments. In 2005 high-profitability subsidiaries were those in the Baltics, Switzerland, Poland, as well as the CIS. Low-profitability destinations were first of all Germany but also other European and non-European developed countries.

Table 5

**Productivity, profitability and capital increase by regions compared to the average**

(Bold script = equity capital share of region in total increase 2000-2005)

	Turnover per employee		Turnover per equity capital		Profit per equity capital	
	Change 2000-2005	Level compared to average, 2005	Change 2000-2005	Level compared to average, 2005	Change 2000-2005	Level compared to average, 2005
DE	+	+	+	+	-	-
HU	+	-	-	+	+	+
<b>CZ</b>	<b>+</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>+</b>	<b>+</b>
<b>PL</b>	<b>+</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>+</b>	<b>+</b>
<b>SK</b>	<b>+</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>+</b>	<b>+</b>
SI	+	+	+	=	-	-
<b>CH</b>	<b>+</b>	<b>++</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>
<b>Baltics</b>	<b>+</b>	<b>-</b>	<b>+</b>	<b>+</b>	<b>+</b>	<b>+</b>
<b>RO+BG</b>	<b>+</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>+</b>	<b>=</b>
Rest-Europe	+	+	-	-	+	-
Rest-Dev	+	+	-	+	+	-
<b>West Balkan</b>	<b>=</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>+</b>	<b>+</b>
<b>CIS</b>	<b>=</b>	<b>-</b>	<b>+</b>	<b>-</b>	<b>-</b>	<b>+</b>
Asia	+	-	+	-	+	+
RoW	+	+	+	-	+	+
All	+	=	+	=	+	=

For explanation of country abbreviations see Appendix I.

As profits guide investments, we can get some hints about future investment targets based on the current profitability of subsidiaries.<sup>9</sup> In addition to profits also capital and/or labour productivity achieved in a country may stimulate further investments. In Table 5, above- and below-average productivity and profitability (+/-) is indicated for each FDI destination. Bold script denotes the eight regions with higher-than-average increase in equity capital. Thus we can find out what characterizes locations in terms of productivity and profitability where FDI increased more than average. The common feature of subsidiaries in dynamic host regions is high or at least average profitability and also an increase of profitability.

As to the productivity indicators, we find that FDI capital increases more in low-labour-productivity destinations than in high-productivity ones, except for Switzerland. Capital productivity is lower than average in most countries with rapidly increasing FDI capital except for Switzerland and the Baltic states. In these two places and in the CIS capital productivity is increasing, while in the other five destinations with high FDI growth it is decreasing. Profitability is the most closely and positively linked indicator with the increase of FDI. Productivity is mostly negatively linked to capital increase while high and increasing profitability can be an important stimulus for investments.

A development against the general trend is found in Asia and the Rest of the World. These regions provide high and increasing profits and average productivity but still do not attract increasing shares of Austrian investments. Lack of knowledge and high costs of running business at a longer distance may be deterrent.

There are only two countries among the CEECs, Hungary and Slovenia, which show slower than average equity capital growth thus losing Austrian FDI other destinations. This can be explained in case of Slovenia with low and decreasing profitability. But Hungary provides high and increasing profit rates which thus cannot be the reason for the relatively modest expansion of investment. In fact, the attained level of capital productivity could be an obstacle if new capital is invested mainly where it is necessary to increase productivity. Data reveal, that countries where subsidiaries already achieved high productivity are not favoured by new investments. The reason may be that Austrian investors lack advanced technology to improve productivity above a certain level. They have standard technology which is superior to that available in less advanced CEECs but not to that in the rest of the countries. This also confirms that Austrian FDI is horizontal and market seeking, much less of the efficiency-seeking type. The latter would require a better record of productivity increase.

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<sup>9</sup> Unfortunately, we know only the average profits minus losses of Austrian subsidiaries in a country or an industry with at least four subsidiaries. We do not know the profitability of individual subsidiaries and of the Austrian mother company.

#### 4 Industry specialization of Austrian subsidiaries

Regional features of Austrian foreign affiliates are closely linked to the uneven activity composition of FDI. In an international comparison, Austrian FDI focuses more on services and less on the primary sector and manufacturing than the average of the developed countries (Table 6). Real estate and other business activities were especially highly represented in 2000. The importance of that activity declined in the subsequent five years while all other activities gained shares. The most remarkable growth took place in trade and financial services, which are over-represented if compared to other developed countries (Rest-Dev) while manufacturing is under-represented. Also 'other services' including transport and communication are of relatively low but increasing significance.

Table 6

##### Share of main activities in the outward FDI stock, Austria and developed countries, %

	Austria 2000	Austria 2005	Developed countries 2005
Primary	1	1	6
Manufacturing	20	21	28
Trade	11	15	7
Finance	24	28	23
Real estate, business services	41	29	22
Other services	3	6	14

Source: OeNB and UNCTAD World Investment Report 2007, p. 226.

The economic indicators characterizing the activities of Austrian subsidiaries are available by 11 NACE 1-digit activities and for manufacturing also by NACE 2-digit subsections. This breakdown can be combined with the host countries to obtain a detailed presentation of activities by hosts. We first present the number of investors and subsidiaries by activities (Table 7). Manufacturing shows the largest *number of investing companies*, 38% of the total in 2005; real estate, business services and trade investors are about 20% of the total each. Between 2000 and 2005 the number of investors rose most in real estate and business services, as well as in the metal industry and trade; it diminished in many of the other activities.

The *number of subsidiaries* increased in most activities often including those where the number of investors shrank. The metal working industry is the manufacturing activity with the highest number of new investors and subsidiaries, closely followed by the chemical industry. In machine building and the production of electrical and optical equipment, several new subsidiaries were established by a shrinking number of investors. This can be a sign of concentration of Austria companies and of horizontal spreading of subsidiaries to new locations.

A high number of subsidiaries per investor indicates that the investor has company-specific assets that can be utilized in many locations. Manufacturing investors have only 2.4 subsidiaries each but more in the non-metallic minerals, the machinery, and the electrical and optical equipment sectors. The more high-tech industries experience a remarkable spreading of new projects but, as we shall see below, the amount of investments and other indicators show below-average dynamism. As a contrast, the small and diminishing numbers of investors and subsidiaries in the food and the textile & clothing industries indicate declining investment activities.

Table 7

**Number of Austrian investors and subsidiaries by activity, 2000 and 2005**

	2000		2005		Change	
	Number of subsidiaries	Number of investors	Number of subsidiaries	Number of investors	Number of subsidiaries	Number of investors
AB Agriculture	8	5	9	6	1	1
C Mining	22	13	29	13	7	0
DA Food, beverages	62	32	56	30	-6	-2
DB+DC Textile, clothing, leather	32	26	30	24	-2	-2
DD Wood	30	15	33	18	3	3
DE Paper, printing publishing	59	28	68	34	9	6
DF+DG+DH Oil, rubber chemicals	138	60	165	66	27	6
DI Non-metallic minerals	105	36	125	36	20	0
DJ Metal	99	52	127	73	28	21
DK Machinery	108	47	142	45	34	-2
DL Electrical and optical equip.	105	47	151	45	46	-2
DM Vehicles	24	11	35	16	11	5
DN Manufacturing n.e.c.	28	16	31	14	3	-2
<i>D Manufacturing</i>	<i>790</i>	<i>370</i>	<i>963</i>	<i>401</i>	<i>173</i>	<i>31</i>
E Energy, water	13	7	22	8	9	1
F Construction	101	34	125	29	24	-5
G Trade	574	186	784	205	210	19
H Hotels and restaurants	32	20	36	21	4	1
I Transport, communication	36	19	58	23	22	4
J Financial intermediation	254	87	360	96	106	9
K Real estate, business services	424	159	635	224	211	65
L-Q Public and other services	48	17	82	22	34	5
<b>Total</b>	<b>2302</b>	<b>917</b>	<b>3,103</b>	<b>1048</b>	<b>801</b>	<b>131</b>

**Box 4****Economic activities in the OCO Monitor database**

OCO Monitor uses a different industrial classification from NACE, thus a direct comparison with OeNB data is not possible. In 2003-2007, 30% of the new projects went to manufacturing, somewhat more in the first two years than later. The great winners over time are construction and "sales, marketing & support" as well as electricity generation. As to the leading activities, real estate development was the most significant activity just like in the OeNB database. This was followed by the oil and gas sector, then transportation (Table D). Financial services show up in the number of projects but less so by other indicators reminding that takeovers are not included in these data.

Table D

**Leading Industry Sectors in 2003-2007, % of total**

	Investment value	Number of jobs	No of projects
Real Estate	23.5	19.8	9.8
Coal, Oil and Natural Gas	17.3	5.2	3.9
Transportation	14.5	0.2	3.8
Wood Products	11.3	16.3	4.3
Building & Construction Materials	4.6	5.2	6.7
Paper, Printing & Packaging	2.7	5.5	3.1
Financial Services	2.4	1.5	17.1
Textiles	1.4	5.0	3.0
Metals	1.6	4.3	2.4
Electronic Components	0.9	2.9	2.1
All Other Industry Sectors	34.0	21.1	46.1
Total	100.0	100.0	100.0

Source: OCO Monitor™ ©2001-2007.

Among the leading investors Raiffeisen Zentral Bank is the first with a total of 74 investment projects announced between 2003 and 2007. In fact, the top ten investors, large banks, real estate developers and major manufacturing companies account for 34% of the projects and two thirds of the investment capital.

In the following we look at the *geographic specialization of industries* based on the equity capital matrix (Table 8): the equity capital of subsidiaries in 15 countries and geographic areas considered together with the NACE 1- and 2-digit industries. Data are available only if more than three subsidiaries provide data for a certain country and industry, therefore Table 8 contains a number of empty boxes.

Table 8

**Equity capital of Austrian subsidiaries by activity and country, EUR million, 2005**

	Food	Textile	Wood	Paper	Chemicals	Non-metallic	Metals	Machinery	Electrical	Manuf.	Electricity	Construction	Trade	Hotels	Transp. + comm.	Finance	Real estate	Other services	
	DA	DB+DC	DD	DE	DF-DH	DI	DJ	DK	DL	DM	DN	E	F	G	H	I	J	K	LQ
DE	43.8	.	129.6	112.7	500.5	201.5	187.5	59.2	111.1	140.7	.	.	257.2	316.5	.	12.3	250.1	3,814.3	138.7
HU	10.0	259.3	23.4	90.1	429.9	163.3	32.4	30.6	313.9	24.6	.	.	153.1	450.4	29.4	30.1	1,213.7	355.9	21.7
CZ	83.9	16.1	121.5	182.8	105.6	169.0	18.1	22.6	66.4	.	4.9	.	132.5	425.3	.	.	2,791.0	477.1	73.9
PL	205.4	.	.	50.9	198.6	36.7	26.2	.	.	.	32.0	.	9.3	117.7	.	.	1,341.0	750.0	0.0
SK	88.2	.	.	.	102.8	47.7	15.9	10.5	37.4	.	.	.	28.1	178.5	.	.	1,353.3	101.4	1.3
SI	.	.	.	76.2	84.8	43.1	.	.	.	.	.	.	.	307.8	.	26.8	341.8	120.9	.
CH	.	.	.	.	1,222.1	.	104.7	22.5	290.6	.	.	.	25.1	624.1	.	.	138.0	1,299.5	.
RO+BG	13.3	.	.	.	1,709.6	37.8	.	15.9	12.7	.	.	129.9	13.6	532.4	.	.	922.5	86.2	2.6
Rest-																			
Europe	24.3	10.9	.	54.0	251.0	363.6	244.4	187.8	75.6	139.0	.	268.4	53.8	2,489.5	.	7.0	2,288.0	6,407.4	10.6
Rest-Dev	.	.	.	.	.	.	216.1	129.4	.	.	.	.	.	1,862.2	.	.	25.7	543.7	.
W-Balkan	.	.	.	48.1	65.2	163.7	.	.	.	.	.	.	13.6	279.1	30.6	272.0	2,093.4	155.0	.
CIS	55.9	.	.	.	.	30.9	.	.	.	.	.	.	.	68.8	.	.	926.6	78.1	.
Asia	.	.	.	.	94.1	.	11.6	44.0	127.0	.	.	.	.	77.3	.	.	.	43.4	.
RoW	.	.	.	.	115.7	.	12.2	20.0	.	.	.	.	16.7	420.7	.	.	994.0	997.4	.
<i>All</i>	<i>524.7</i>	<i>286.2</i>	<i>274.6</i>	<i>615.0</i>	<i>4,879.7</i>	<i>1,257.2</i>	<i>869.0</i>	<i>542.5</i>	<i>1,034.7</i>	<i>304.3</i>	<i>36.9</i>	<i>398.3</i>	<i>703.0</i>	<i>8,150.2</i>	<i>60.1</i>	<i>348.3</i>	<i>14,678.9</i>	<i>15,230.5</i>	<i>248.8</i>

For explanation of country abbreviations see Appendix I.

Countries and industries with more than three Austrian subsidiaries.



Looking at the industries in the sequence of the amount of Austrian investment capital (Table 8), the first activity is *real estate and other business services*. This includes computer-related activities, R&D, legal activities, advertising, management of holding companies, etc. Holdings are particularly important because Austrian investors often set up multi-purpose subsidiaries abroad which can often themselves function as investors. Developed European countries concentrate more than three quarters of the investments in the real estate and other business activities and only one fifth of this industry is located in the NMS. In developed countries this activity is by far the most important one having received 60% of the FDI in Germany and some 50% in the rest of Europe. In the NMS the share of this activity is much smaller, only about 10% of the Austrian capital and its amount is only the fourth after finance, manufacturing and trade. But in the main CEE destinations of Austrian real estate and other business service investments, Poland and the Czech Republic, it comes ahead of trade. The growth of equity capital in this activity in 2000-2005 was much slower than of financial services and of manufacturing which resulted in its declining share in total FDI. Still, it was the main field of new investments in Germany and Rest-Europe.

*Financial services* investments comprise the second most important activity of Austrian subsidiaries. What is real estate and other service investment for developed countries, it is financial sector investment in CEECs. More than 50% of this activity is concentrated in the NMS and another 20% in the Western Balkans and the CIS. The highest sum has been invested in the Czech Republic, 20% of the total, followed by Slovakia, Poland and Hungary. In all these countries, financial services lead the list of Austrian investments with almost 70% of all investments in Slovakia and 60% in the Czech Republic. This share is below 50% in Poland, and in Hungary that has a more diversified investment structure it is only one third of all Austrian FDI. In Romania and Bulgaria, 2005 data still do not contain the investment of Erste Bank in the largest Romanian bank, thus the share of financial investments is only one quarter of the total. In the Western Balkans where 14% of the Austrian financial service investments concentrate, they account for as much as two thirds of Austrian FDI. In developed countries, Austrian financial intermediaries are mainly confined to Europe: there is little activity in Germany, more in Switzerland and the rest of Europe, but almost nothing overseas.

The more east we go in the CEEC region, the higher the share of financial services in Austrian FDI. In the 1990s banks usually followed their customers in manufacturing and trade to the new investment locations. More recently banks have a pioneer role. Financial services FDI has lately grown very strongly and is soon to become the most important Austrian investment activity. Growth after 2000 took place mainly by expanding to new destinations, primarily in Southeastern Europe. The most recent direction of expansion is the CIS, where financial services is the only activity with serious amounts of Austrian FDI, three quarters of the total.

*Manufacturing* is the third most important activity with 21% of the Austrian capital abroad in 2005, slightly more than five years earlier. Out of 11 sub-branches only three grew faster than the average: the chemical industry, the production of vehicles as well as the production of furniture and other goods (manufacturing n.e.c.). More than half of the manufacturing capital in 2005 concentrated in the chemical industry including the oil sector, after only 23% in 2000. The increase is mainly due to new investments in only two countries: Romania and Switzerland. With the OMV takeover of the largest Romanian oil company, that country has become the main host of Austrian chemical industry investments.<sup>10</sup> Also in Switzerland it was a new entry in 2004 which skyrocketed Austrian FDI. The chemical industry is the leading Austrian manufacturing investment target also in Hungary, and the second most important in Poland and the Czech Republic.

**Box 5**

**Most recent manufacturing projects locate primarily in Romania and Hungary (OCO Monitor)**

In 2006-2007, not covered by the OeNB, 140 manufacturing projects were recorded by OCO monitor, about the same number as in the previous two years. The recorded investment capital was highest in 2006. The main destination by number of projects in the last two years remained Hungary, much better placed than suggested by the OeNB (22 projects), followed by Romania (21 projects) as well as by Bulgaria, Slovakia, China, Poland and Russia (around 10 projects each). Among the sectors the production of construction materials is first with quite some distance ahead of machine building. First tier neighbouring countries, medium technology industries and a handful of large multinationals dominate Austrian outward FDI.

*Non-metallic minerals* (building materials) is with 13% of the manufacturing FDI capital, the second largest manufacturing sector. It is less concentrated geographically, in fact quite widely spread all over Europe but not outside it. This industry has experienced slower than average equity growth in the past five years (Table 9).

The third most important manufacturing target, the production of *electrical and optical equipment* (9% of the total Austrian FDI) also expanded slower than average. Most of the capital invested after 2000 was concentrated in two locations, Hungary (31%) and Switzerland (29%). Rapidly growing investments Hungary took place in 15 subsidiaries with high but stagnating employment. In Germany, ranked third, this industry is shrinking by almost all indicators. Rest-Europe hosts the largest number of subsidiaries but relatively small capital. Asia, the world's leading electronics manufacturer, accounts for only 12% of the Austrian capital in this industry, still this is the most important Austrian target industry in that region. Between 2000 and 2005, the number of subsidiaries more than doubled, their capital increased eleven-fold, employment seven-fold and turnover almost ten-fold. Also Romania+Bulgaria is interesting, with 7 very labour-intensive electronics subsidiaries in 2005 against none at all in 2000.

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<sup>10</sup> Romanian statistics classified the OMV investment into the primary sector not in manufacturing.

**Box 6****Austrian projects in the ICT and electronics cluster (OCO Monitor)**

Between 2003 and 2007, OCO Monitor recorded a total of 66 investment projects by 33 companies in what they define as the "ICT and electronics cluster". Within it, the leading sector was Software & IT services, which accounted for 36% of projects and increasing numbers year by year. The leading business activity was Sales, Marketing & Support, which accounted for half of the projects followed by 11 projects in manufacturing. The top three destination markets were Hungary, Slovakia and USA, attracting 14%, 11% and 6% of the investment projects respectively. The role of Hungary is especially strong in electronics manufacturing, but also China is important in terms in capital and employment. The most recent Austrian ICT projects are located in Germany, Slovakia and Poland diversifying the location pattern. The top ten companies accounted for 58% of all investment projects. S&T leads with 7 projects followed by 3united, AT&S and Kapsch with 5 projects each. In fact, these companies operate large international networks of sales, marketing and production.

Further Austrian investment targets in manufacturing include the *metal industry* concentrated mainly in the developed countries and the *wood and paper industries* which have the Czech Republic and Germany as their main destinations. As opposed to these very concentrated industries, the *machine building industry* is broadly spread, but locates, similarly as the metal industry, mainly in developed countries, primarily Rest-Europe. Just as in electronics, the role of Germany is declining while it increases in case of Rest-Europe, Hungary and Asia. Asia is a rapidly emerging new location as the number of affiliates increased from 6 to 23 between 2000 and 2005. These are mainly small subsidiaries with low amounts of capital. Fast growth of Austrian FDI over the period 2000-2005 took place also in the *production of vehicles* but the achieved share of this industry in manufacturing FDI remained low, less than 5%. We know that half of the invested capital went to Rest-Europe but we do not know where the rest is located, as in each of the other regions the number of affiliates is below four.

The above brief overview of the manufacturing sector shows that the bulk of Austrian FDI is in the medium-technology industries whereas both low- and high-tech industries have small and diminishing importance. The main manufacturing industry targets, Hungary, Germany and the Czech Republic, show a more diversified industry structure than the rest of the host countries.

Following manufacturing, *trade* comes in fourth among the target industries measured by the equity capital of subsidiaries. It grew rapidly between 2000 and 2005 both in developed countries and in CEECs. Trade is also the activity with the highest number of Austrian investors and subsidiaries abroad. In terms of equity capital, most trade subsidiaries are located in developed European countries (34%) and in developed overseas countries (23%), where it is the most important activity of Austrian subsidiaries. We can assume that these are mainly wholesale ventures. CEECs are also among the primary targets, with 29% of the invested capital in trade. The highest concentration is observed in Hungary and the Czech Republic, followed by Slovenia, Romania, Bulgaria and the Western Balkans. In

these countries Austria is present mainly through its retail chains. These chains are recently expanding to more remote CEECs in the same way as banks.

The rest of the Austrian FDI capital, beyond the four main targets, is distributed among *seven other activities* having shares up to 2.3% at the most. Among them, transport firms and telecom investments are located mainly in the CEECs especially in the Western Balkans. The construction industry accounts for only 1.4% of the capital and its main target country is Germany, followed by Hungary and the Czech Republic. There is no shift towards services in terms of invested capital between 2000 and 2005. But the trend is somewhat different if we take other indicators (Table 9).

Table 9

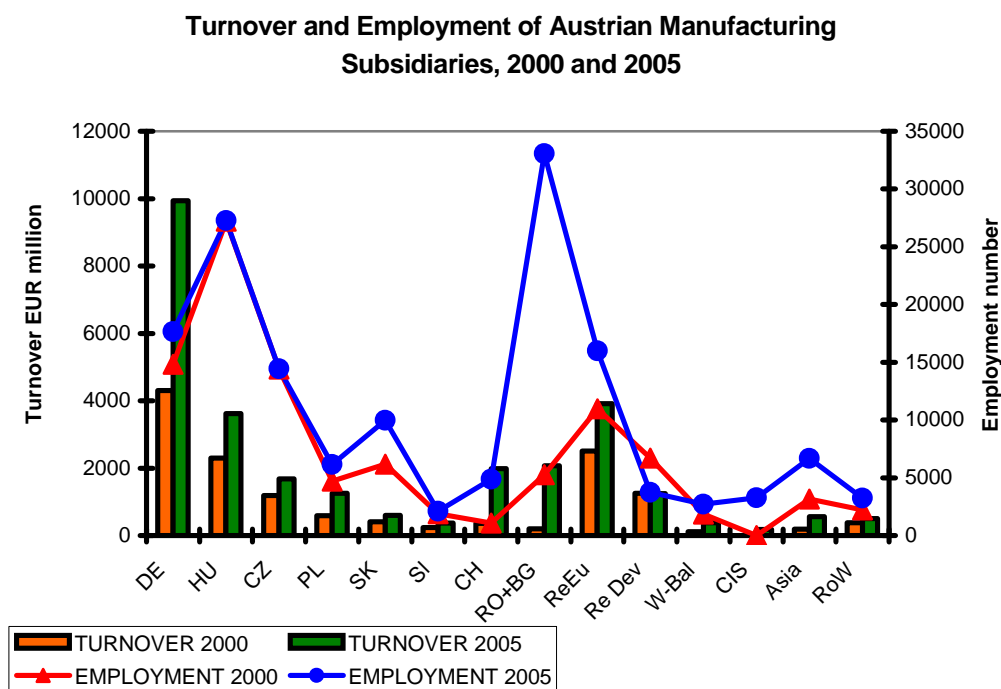
**Main characteristics of Austrian subsidiaries by economic activities, shares in total (%), and profitability, 2000 and 2005**

	Equity capital		Employment		Turnover		Profit - loss		Profit-loss per equity capital	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
AB Agriculture	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.03	0.01
C Mining	0.9	1.3	0.8	1.1	0.5	0.8	1.3	1.6	0.08	0.12
DA Food, beverages	1.7	1.5	4.8	2.6	3.0	2.1	4.0	2.0	0.13	0.13
DB+DC Textile, clothing, leather	0.2	0.2	2.8	2.2	0.6	0.2	-0.1	0.2	-0.03	0.09
DD Wood	0.9	0.7	2.1	1.3	2.0	0.7	-2.9	0.4	-0.18	0.06
DE Paper, printing publishing	1.9	1.3	3.2	1.9	3.2	1.4	3.4	1.1	0.10	0.08
DF+DG+DH Oil, rubber chemicals	4.5	8.9	8.0	11.4	9.6	13.9	13.2	10.2	0.16	0.11
DI Non-metallic minerals	3.0	2.8	4.9	4.3	2.9	2.7	5.3	3.8	0.10	0.13
DJ Metal	2.2	1.7	4.3	2.9	3.9	2.5	3.2	2.7	0.08	0.15
DK Machinery	1.9	1.1	3.9	2.6	3.4	2.2	2.8	1.5	0.08	0.14
DL Electrical and optical equipment	2.7	1.9	9.4	8.7	6.2	4.1	2.6	-0.1	0.05	0.00
DM Vehicles	0.4	1.0	3.4	1.6	3.2	1.3	-1.9	2.0	-0.24	0.19
DN Furniture and manufacturing n.e.c.	0.2	0.3	2.1	1.6	0.9	0.9	-0.1	0.5	-0.03	0.20
<i>D Manufacturing</i>	19.8	21.3	49.0	41.1	39.0	32.1	29.3	24.4	-0.03	0.05
E Energy, water	0.2	1.0	0.1	0.7	0.1	1.5	-0.1	0.5	0.01	0.14
F Construction	1.5	1.4	8.1	5.3	2.0	4.0	0.3	2.0	0.03	0.12
G Trade	10.8	15.4	16.1	17.9	41.3	43.6	5.3	19.2	0.11	0.03
H Hotels and restaurants	0.8	0.2	1.2	0.6	0.5	0.2	1.6	0.1	-0.04	0.14
I Transport, communication	0.2	2.3	0.9	1.8	0.7	2.2	-0.2	3.3	0.09	0.14
J Financial intermediation	23.7	27.7	13.8	24.2	7.7	10.0	36.2	39.5	0.03	0.03
K Real estate, business services	40.9	28.8	8.0	6.1	7.5	4.9	18.6	8.6	0.41	0.12
L-Q Public and other services	1.1	0.7	1.9	1.2	0.7	0.7	7.8	0.8	0.06	0.10
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.06	0.10

Services gained shares between 2000 and 2005 in terms of *turnover*, *employment*. Employment rose most rapidly in financial services, it also increased in trade but declined in all other activities. As for turnover, trade accounts for 44%, the chemical industry for 14% and financial services for 10% while the rest is even smaller. Manufacturing on the whole is losing shares in terms of employment and turnover as investments concentrate in the capital-intensive high-productivity chemical industry. This is the only branch with increasing shares in capital, employment and output (Petrom takeover, see above).

*Capital and labour productivity* are high in trade but low in financial services; in real estate and other business activities capital productivity is high while labour productivity is relatively low. Such branch-specific characteristics explain why productivity is low in host countries where the share of financial services is high, like in most CEECs except Hungary. Where the real estate and business services sector is significant, capital productivity is relatively high. This is the case with most of the developed countries. Employment, turnover and productivity all grow when invested capital grows in banking, trade and the chemical industry. On the other hand, labour-saving growth occurs in construction, transport and telecommunications. But turnover data are poorly defined, overstated in trade and not clearly specified in banking.

Figure 1



Whereas in 2000 Hungary was the largest manufacturing industry employer, in 2005 it came in second after Romania+Bulgaria (Petrom takeover). At the same time, employment decreased in developed countries outside Europe (ReDev) and stagnated in the Czech

Republic and Slovenia. The largest turnover in both years was achieved by subsidiaries in Germany, followed by Rest-Europe and Hungary. The largest increase in turnover was observed also in Germany, followed by Romania+Bulgaria, Switzerland and Hungary (Figure 1).

Turnover increased much more rapidly than employment in Germany and Switzerland, thus labour productivity increased most in countries where it was anyway the highest. Growing turnover with stagnating employment took place in Hungary and the Czech Republic. Also here, production increased mainly by improving labour productivity which is a sign of restructuring and technological upgrading. In fact, the concentration of manufacturing turnover in the most developed and oldest FDI target countries was supported mainly by productivity increase. Simultaneous increases in both employment and turnover can be observed in new FDI destinations where market entry plays the major role such as Slovakia, Romania+Bulgaria, the CIS and Asia. In some less developed FDI destination both employment and turnover expanded in the way that labour productivity may even decline.

Increase in *profitability* is widely spread among the economic activities (Table 9). In 2000 there were seven activities where losses prevailed over profits, but none in 2005. Certainly, this does not mean that there was no subsidiary making losses, but that profits were on average larger than losses. Among the profitable activities in 2005 there were five where profits/equity decreased as compared to 2000: the production of paper products, the chemical industry, the production of electrical and optical equipment, hotels and restaurants, and real estate and other services. Out of these activities, only the production of chemicals was in the course of rapid expansion causing a decrease of profitability. The other activities with declining profit rates were those with lower than average profits and slower than average investment activity. It can be concluded that low or falling profits usually deter investments, but as shown below, high and increasing profits do not necessarily attract them.

The highest profitability is observed in the following activities: furniture and other manufacturing, production of vehicles, followed by metal processing, machine building, construction, transport and communication, financial services (Table 9). There is no obvious common characteristic of these success industries. Some feature strong investment activity and others weak investment activity. By contrast, low profitability characterized agriculture, energy, hotels as well as real estate and other business services, all activities where profits are not the main success indicator. Asset value in these industries may increase independently of short-term profits and add to the long-run return on the investment. Other activities with below-average profitability include the textile as well as the wood and paper industries where technological change is generally slow and profits

remain low. What is surprising is the lack of profits in the electrical and optical equipment industry which is in other countries one of the fastest growing and investing industries.

Financial services and trade produce the highest and the fastest growing amounts of profits and are among the activities with the highest profit rate. The share of these activities in a region will to a large extent determine its overall profitability. Financial services are less frequent investment targets in developed countries and have also relatively low profitability there. But in most CEECs financial services show both the largest amount of Austrian FDI and the highest profit rate.

The discrepancy between profitability and equity capital investments reveals the unexploited potential for FDI. For instance, a large part of the electrical and electronics investments are made in Hungary where the profitability of this sector is low (Table 10). In Asia, where profitability in this industry is high, Austrian investors hardly expand. The same pattern is true for machine building. Germany is an advantageous location for manufacturing in general; the losses that overwhelmed profits in 2005 occurred mainly in the real estate and other business services sector. This is just the opposite of Switzerland, where high profits are earned in the real estate and other business activities and trade, but not in manufacturing except the chemical industry. The high profitability in Poland, the highest among the CEECs, is present across all activities, a feature which should attract more investments in the future both in manufacturing and services. More such observations are included in the Conclusions.

Table 10

## Profits per equity capital by country and activity, 2005

	Food DA	Textiles DB+DC	Wood DD	Paper DE	Chemic. DF-DH	Nonmet. DI	Metals DJ	Machine DK	Electric DL	Constr. F	Trade G	Hotel H	Transp. I	Finance J	Realest K	Service L-Q	Sum by country
DE	0.08		0.01	0.19	0.24	-0.03	0.17	0.36	0.09	0.12	0.08	.	-0.42	0.02	-0.12	0.10	-0.03
HU	0.09	0.16	.	0.13	0.11	0.13	0.11	0.06	0.01	0.07	0.12	0.25	0.14	0.21	0.01	0.11	0.13
CZ	0.18	0.02	0.11	0.10	0.11	0.16	0.06	0.11	0.17	0.12	0.07	.	.	0.17	0.07	0.09	0.14
PL	0.25	.	.	0.30	0.25	0.11	0.18	.	.	0.09	0.16	.	.	0.20	0.13	.	0.18
SK	.	.	.	0.00	0.00	0.21	0.20	0.22	0.24	0.22	0.01	.	.	0.16	0.02	-0.03	0.13
SI	.	.	.	0.04	0.13	0.16	.	.	.	.	0.02	.	0.11	0.10	0.02	.	0.07
CH	.	.	.	.	0.15	.	0.14	-0.15	-0.02	0.15	0.29	.	.	0.01	0.23	.	0.18
RO+BG	0.19	.	.	.	0.07	0.13	.	0.12	0.01	0.07	0.16	.	.	0.13	0.07	0.13	0.10
Rest-Europe	0.24	-0.25	.	-0.38	-0.03	0.19	0.21	0.15	-0.70	0.27	0.11	.	-0.51	0.07	0.07	0.29	0.07
Rest-Dev	.	.	.	.	.	.	0.07	0.08	.	.	0.11	.	.	0.10	-0.16	.	0.02
West Balkan	.	.	.	0.09	0.11	0.13	.	.	.	0.59	0.06	0.00	0.28	0.15	0.04	.	0.14
CIS	0.13	.	.	.	.	0.15	.	.	.	.	0.05	.	.	0.17	0.08	.	0.15
Asia	.	.	.	.	0.16	.	0.01	0.24	0.28	.	0.04	.	.	.	0.02	.	0.16
RoW	.	.	.	.	0.23	.	-0.04	0.01	.	0.54	0.19	.	.	0.02	0.10	.	0.09
All	0.14	0.03	0.05	0.09	0.11	0.13	0.15	0.14	-0.01	0.14	0.12	0.02	0.21	0.14	0.03	0.10	0.09

For explanation of country abbreviations see Appendix I. Contains only manufacturing industries with at least three countries.



## 5 Conclusions

We outlined in this paper the main features and directions of development characterizing Austrian outward FDI. The analysis relied mainly on data derived from the OeNB survey of Austrian investors and their foreign subsidiaries up to 2005. In addition more recent information was taken from the OCO Monitor database. The current regional and sectoral specialization as well as the investment motives can be used to tentatively predict future trends and suggest policy actions.

### *Location trends*

The intensity of Austrian involvement in outward FDI shows concentric belts: the farther we move away from Austria, the lower is the number of investors and subsidiaries. The belts have a West and an East European segment where the intensity of Austrian presence is similar but its dynamics and industry composition are different:

- The first belt, with the most intensive Austrian presence, comprises the neighbouring countries, Germany and Switzerland in the West where the dominant investment targets are real estate and other business services and manufacturing. In the East that belt encompasses the new EU member states Hungary, the Czech Republic, Slovakia and Slovenia where manufacturing and financial services dominate.
- The second belt is represented by the rest of Europe in the West, and Croatia, Poland, Romania and Bulgaria in the East. Here the number of investors and subsidiaries is smaller than in the first belt but increasing rapidly. The leading industry in the eastern segment is financial services, in the west it is real estate and other business services.
- In the third belt, growth is remarkable in the Eastern segment comprising the CIS countries, but no growth appears in the other parts of the world.
- There is a shift in time from the inner belt to the second, much less to the outer belt.

OCO Monitor data for 2006-2007 reveal declining Austrian engagement in the West and a more intensive activity in the Eastern segment of the belts. It shows more activity in Hungary than the OeNB data, while it confirms the emergence of Romania and Bulgaria among the most important investment targets.

As a worrying feature, Austrian outward FDI in Asian countries including China features small and declining shares in subsidiary capital, turnover, employment and profits. From 2000 to 2005, equity capital of Austrian subsidiaries in Asia declined even in nominal terms (partly due to the appreciation of the EUR against the USD). Employment and turnover increased, but at a slower rate than in other FDI destinations. This is against the global trend of rapidly expanding FDI in Asia. OCO Monitor suggests that there is some recent

intensification of activities of Austrian manufacturing firms in market seeking investment projects in China and also in India.

In sum, Austria is not among the top global investors, but it is an important regional player in Central and Southeast Europe. In the present research we have found no indication for Austrian FDI expanding outside Europe. We observe merely a shift of new FDI within the CEECs to the East and Southeast. As these are fast growing regions, they provide a good opportunity of internationalization for Austrian companies in the next future. Meanwhile, opportunities in even faster growing Asian countries may be missed.

#### *Size and motivation of investors*

The geographically concentrated pattern of Austrian outward investment activity is characteristic of small developed countries with few globally active transnational corporations. Austrian investors are to 60-70% SMEs but they own a relatively small part of the invested capital. Differences appear between industries according to the branch-specific size structure of firms and there is also a certain time pattern. In early years of market access the share of SMEs tends to be large; after consolidation it declines; and when entry conditions become more simple it increases again. Being an SME may not hinder foreign expansion to neighbouring countries, but entering more remote destinations may require larger size to cope with more complex problems. The importance of size is confirmed by OCO Monitor data which, although including small investment projects not covered by the OeNB, show that most of the new projects are initiated by the larger Austrian multinationals.

Policy may have two tasks. One is to encourage companies that are not active internationally to invest abroad. In this respect one can hardly expect that many SMEs go beyond the first belt of neighbouring countries. Another objective could be to support investing companies to grow beyond SME size because concentration of capital would be necessary to enter more remote investment targets.

#### *Foreign investments by activities*

'Real estate and other business services' is the most important activity of Austrian investors abroad, closely followed by financial services. While the first has a declining share, financial services expanded very rapidly between 2000 and 2005. Manufacturing is the third most important activity, but out of 11 manufacturing sub-branches only three grew faster than the average: the chemical industry including the oil and gas sector, the production of vehicles and the production of furniture and other consumer goods. The most important investment targets by size are the chemical industry again, the construction material industry and the production of electrical and optical equipment. The latter industry is concentrated in Hungary and Switzerland. Asian countries, the world's leading electronics manufacturers, as well as Romania and Bulgaria register smaller albeit expanding shares

of Austrian FDI capital in this industry. While financial services and some manufacturing industries have internationally active larger companies, other industries may be hindered in their expansion by small firm size and scarcity of knowledge. Especially high-tech industries may need more venture capital and coaching to expand abroad.

#### *Motives for investing abroad*

Most Austrian FDI projects are market seeking, they sell on the local markets of their target countries. The lack of efficiency seeking investments explain why relocation from Austria is rare compared to Germany or France. The labour cost motive of investment is marginal, except in the case of the Czech Republic, Hungary and Slovakia. This first belt of investment target countries host most of the export oriented manufacturing subsidiaries of Austrian companies. In addition, Romania is emerging as a further target of Austrian efficiency-seeking investment. There is no sign that other second-tier countries like those in the Western Balkans become possible targets for labour-intensive production: the number of manufacturing subsidiaries is rising very slowly and the labour cost motive is not frequent possibly due to higher wages than in Romania or Bulgaria. Labour-intensive manufacturing production expands also in Asia, but targets mainly the local market.

#### *Industries and region with good investment prospects*

Looking at the relationship between FDI growth on one hand and labour productivity, capital productivity and profitability of subsidiaries on the other, we identified the profitability of subsidiaries as the factor most related to the growth of Austrian outward FDI. Potential investment targets based on higher than average profitability of subsidiaries in 2005 include:

- Germany in several manufacturing branches
- Hungary in textiles, clothing and financial services
- the Czech Republic in the food industry
- Poland in almost all activities
- Slovakia in non-metallic minerals, metal working, electrical machinery and electronics
- Switzerland in trade, real estate and other business activities
- Other West European countries in the food industry and in construction
- the Western Balkans in construction, transport and telecom
- the CIS in financial services
- Asia in machine building and the electrical and electronics industry
- the rest of the world (Africa and Latin America) in the chemical industry, construction and trade

Present profits are only one of the factors stimulating future investment. Countries not providing profits at the moment may just have the best potential. Romania, Bulgaria, and Slovenia cannot be considered attractive in any activity based on year 2005 profitability but

they show up with improving profitability on the whole. Also the amount of Austrian FDI per GDP in these countries is still less than in other CEECs, thus more inflows can be expected. The expansion of Austrian FDI in this second belt of target countries is well on track with larger companies. Help and stimulus may be necessary for SMEs and manufacturing industry investors. It is even more desirable to support expansion in regions where profits are already high but investments relatively low, especially in Asia. While it is the natural direction of development to increase Austrian activities in the Western Balkans and the CIS, it may also be desirable to develop a more global footing.

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## Appendix I

### Countries, geographic regions

Abbreviation in tables	Name and content
DE	Germany
HU	Hungary
CZ	Czech Republic
PL	Poland
SK	Slovakia
SI	Slovenia
CH	Switzerland
RO+BG	Romania and Bulgaria
Baltics	Baltics
Rest-Europe	Other West European countries
Rest-Dev	Other, non-European, developed countries
West Balkan	Western Balkans
CIS	Commonwealth of Independent States
Asia	Asian countries
RoW	Rest of the world (Latin America and Africa)
All	Total by region
Total	Austrian subsidiaries total

NMS-8 include HU, CZ, PL, SK, SI, Baltics

CEECs include NMS-8, RO+BG, W-Balkan, CIS

## Appendix II

### Industry classification

A-B Agriculture, fisheries  
C Mining and quarrying  
DA Food, beverages, tobacco  
DB+DC Textile, clothing, leather  
DD Wood, wood products  
DE Paper, printing, publishing  
DF+DG+DH Oil, rubber, chemicals  
DI Non-metallic minerals  
DJ Metal  
DK Machinery  
DL Electrical and optical equipment, electronics  
DM Vehicles  
DN Furniture and manufacturing n.e.c.  
D Manufacturing  
E Energy, water  
F Construction  
G Trade  
H Hotels and restaurants  
I Transport, communication  
J Financial intermediation  
K Real estate, other business services  
L-Q Public and other services