REPATRIATION OR REINVESTMENT? 
ON THE SEQUENTIAL FLOWS OF FDI

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Abstract

Austrian outward foreign direct investment increased quickly since 1989. For Austria this period was characterised mainly by the opening up of Central and Eastern Europe (CEE) economies. In CEE, affiliates are quite young on average, since the earliest date of establishment was 1989 in the majority of cases. It is therefore not surprising, that early date profitability of Austrian affiliates in CEE has been modest. The picture changed considerably during the mid nineties when Austrian FDI in CEE-5 had become very profitable. However, profitability became a second wind when also investments in other CEECs (CEE-14) became profitable. In 2004 total annual profits translate into an average return on equity (RoE) of 8.0%. However, the rates differ quite substantially by regions. They are 3.3% for investments in the EU-15 but 11.3 for CEE-5 and 9.0 for CEE-14. The age of investment is the main determinate of profitability. After some severe start-up troubles Austrian affiliates in CEE currently contribute considerable amounts to the overall competitiveness of Austrian MNEs.

Profits are used in two different ways. They are either reinvested (and thereby contribute to the existing stock of capital in the host country) or they are repatriated and thereby improving the profitability of the parent firm. The paper shows that these two alternatives differ substantially by countries, sectors and over time. In particular there are strong differences of Austrian investment in new and old EU member countries. The share of reinvestment is much higher in new member countries. However, this share is declining substantially over time.

Key Words: Austrian foreign direct investment, EU enlargement, profitability.

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1 Introduction

The economic and political opening of Central and Eastern Europe\(^2\) (CEE) in the year 1989 has had a tremendous impact on the Austrian economy. Since Austria’s economy is mainly dominated by small and medium enterprises (SME) its outward FDI stock (measured as a percentage of GDP) has been traditionally very low. In 1989, at the beginning of the transition period this share has been 2.1% only whilst the share of inward FDI stock has been 7.0% (see Figure 1). Only 15 years later these shares have increased up to 19.5% and 21% respectively. In 2003 these shares have been rather balanced for the first time in Austrian history. The exceptional increase of Austria’s outward FDI since 1989 was mainly due to the opening up of the CEE economies where Austrian firms invested rather heavily.

![Figure 1: FDI stock as percentage of GDP, 1980 - 2002](image)

Although Austria’s share in worldwide outward FDI stock was 0.7% in 2004, its comparable average share in the eight new member states (NMS) Hungary, Poland, Czech Republic, Slovakia, Slovenia, and the three Baltic states was 8.8% (see Table 1). The largest investors in the region are the Netherlands, followed by Germany. However, Austria is ranked third. In the adjacent countries to Austria these shares are considerably higher, i.e. 23.2% in Slovenia and 14.2% in Slovakia. Moreover, most recent figures show that Austria is ranked first in the next EU-member countries Croatia (27.0%) and Bulgaria (17.5%) and second in Rumania (12.2%) (WIIW 2005). These data show impressively the strong activities of Austrian firms in this region. Most of these activities can be explained by geography but also by cultural and historical ties. The most recent investments in Croatia, Bulgaria and Romania are strongly concentrated in

\(^2\) Although eight out of 19 CEECs are already member of the EU we subsume under the heading of CEE-5 Poland, Hungary, Slovenia, Slovak Republic and Czech Republic. Under CEE-19 we subsume CEE-5 and Albania, Bosnia and Herzegovina, Bulgaria, Estonia, Croatia, Latvia, Lithuania, Moldavia, Romania, Russia, Serbia and Montenegro, Slovak Republic, Ukraine and Belarus.
finance and oil processing where Austrian firms have a very solid position generally in CEE. Close to 40% of all outward investment in CEE is allocated to finance!

Table 1: Inward FDI stock in NMS-8 by major home countries
December 2004, share in per cent

<table>
<thead>
<tr>
<th>Country</th>
<th>SI</th>
<th>SK</th>
<th>CZ</th>
<th>HU</th>
<th>PL</th>
<th>NMS-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>5,4</td>
<td>25</td>
<td>30,9</td>
<td>19,5</td>
<td>23,3</td>
<td>21,9</td>
</tr>
<tr>
<td>Germany</td>
<td>7,8</td>
<td>18,5</td>
<td>20,6</td>
<td>29,2</td>
<td>17,2</td>
<td>19,6</td>
</tr>
<tr>
<td><strong>Austria</strong></td>
<td><strong>23,2</strong></td>
<td><strong>14,2</strong></td>
<td><strong>11,8</strong></td>
<td><strong>11,2</strong></td>
<td><strong>4</strong></td>
<td><strong>8,8</strong></td>
</tr>
<tr>
<td>France</td>
<td>7,5</td>
<td>3,1</td>
<td>7,9</td>
<td>4,3</td>
<td>14,5</td>
<td>8</td>
</tr>
<tr>
<td>US</td>
<td>1,6</td>
<td>4,2</td>
<td>5,2</td>
<td>5,2</td>
<td>9,5</td>
<td>6,3</td>
</tr>
<tr>
<td>Other</td>
<td>54,5</td>
<td>35</td>
<td>23,6</td>
<td>30,6</td>
<td>31,5</td>
<td>35,4</td>
</tr>
</tbody>
</table>

Source: WIIW 2005

Until now not much analysis has been carried out on the profitability of Austrian investments (Altzinger 2003, Dell’Mour 2004, OeNB 2005). This paper tries to shed some new light on this important issue. Section 2 provides an overview on the theoretical determinants of profitability; section 3 describes the dataset and provides the empirical evidence for Austrian; section 4 discusses open questions and concludes.

2 Various Explanations for the Development of Earnings

2.1 Determinants of Earnings

As the foundation of an enterprise is frequently associated with start-up losses, the vintage of the direct investment enterprise provides valuable information. Moreover, we would assume, the amounts invested become larger over time because the risk has become easier to gauge. Also EU membership should decrease investor’s risks considerably. Further, more reinvestments should be encouraged if the upcoming economic development seems to be promising for the host country. Actual research on this topic shows that the average growth rate of transitions countries has been two percentage-points above the growth rate of EU countries on average over the period 1995-2003. Growth acceleration is possible provided the business climate in the EU improves. In any case the average rate of catching-up vis-à-vis the EU will stay at about two percentage points per year.

According to these considerations we expect that the profitability of investments depend among others on (see Lehmann 2002; Lundan 2003):

- Macroeconomic factors (in particular growth rates and risks of investment in host countries)
- Taxes on affiliate income
- Agency problems (between parent and affiliates)
- Transfer pricing
Since actually we do not have the appropriate data to test these considerations we will focus on an easier question, namely on the general development of affiliate earnings over time.

### 2.2 The FDI Financial Life Cycle

Firstly, we are in particular interested on the development of earnings over time. Secondly, we want to understand more clearly what has been done with the earnings, in particular whether they have been reinvested in the affiliates or repatriated to the parent firms. Hence we want to test the following hypothesis which is depicted in Figure 2 (see Brada and Tomsik 2003).

*At the outset* firms made an investment in the host country to found an affiliate. At first, due to start-up problems, affiliates will often operate at a loss (stage 1). In the case of an acquisition, this period may be short if the acquired firm can be easily reorganized to become profitable. In the case of a greenfield investment, during the time taken to build and equip a production facility, the interest on the capital invested may result in longer lasting start-up losses. Thus the affiliate operates at a loss and pays no dividends.
Figure 2: The FDI Financial Life Cycle

Next the affiliate begins to operate at a profit as production starts or as the firm becomes more competitive as the result of the restructuring or other competitive advantages provided by the parent firm (stage 2). However, as the affiliate becomes more successful on the market, it is likely to have significant needs for additional investment. Thus all profits may be reinvested to meet these needs. As time passes and profits continue to grow, the parent firm may begin to require that the affiliate remit some of the profits.

Finally (stage 3), the affiliate has reached a mature stage, the parent firm will choose to repatriate a larger share of profits in the form of dividends so that these funds can be used to finance investment opportunities that offer more dynamic prospects elsewhere, and reinvested earnings will decline.

The two forms of earnings utilization (reinvestment or repatriation) have critical implications for both host and home countries growth and employment. Hence it is essential to get more information on these issues. In the next section we will investigate this hypothesized time pattern empirically for Austria’s outward FDI.
3 Development of Austrian FDI and Affiliate Profitability by Countries

3.1 The Regional Structure of Austrian FDI

As shown in Figure 3 Austrian FDI in CEE increased tremendously since 1990. Starting from a low of 0.4 EUR billion in 1990 the amount has increased up to 18.9 EUR billion in 2004. In the year 2004 this was a share of 37.9% of total investment. Meanwhile this share is considerably higher than that for EU-15 (32.8%). Until now Austrian investment in CEE seems to be a never ending story of expansion.

![Figure 3: Austrian Outward FDI by Regions, 1990-2004 (in EUR million)](image)

This perception seems to be emphasised by the regional structure of Austrian FDI within the CEE-19 (Figure 4). There we can see a very interesting regional pattern of development. Austria started his eastward expansion in 1989 first in Hungary and then in the other three adjacent countries Czech Republic, Slovenia and Slovak Republic. Until 1996 theses four countries accounted for more than 95% of all investment in CEE-19. However, in 1998/99 the picture changed considerably. From 1998 onwards first Poland became an important host country for Austrian firms and second several countries within the CEE-14 became much more important. These are in particular the upcoming EU-member countries Romania, Bulgaria and Croatia but also Russia. In 2004 the CEE-14 accounted for 12.0% of total investment whilst Hungary share was only 7.7% and hence turned over by the Czech Republic with 8.4%. Hence it is of particular interest to look at the profitability of these new investments in CEE-14 more thoroughly.
3.2 On the Profitability of Austrian FDI

To compare the profitability of Austrian affiliates we sub-divide all affiliates into four regions, EU-15, CEE-5, CEE-14 (see endnote 2) and RoW (Rest of the World; these are mainly US, Canada and Switzerland). We analyse the development by the median return on equity (RoE). The median provides us a pattern of the average profitability of firms independently of their size and impact on total profitability. In particular the development over time can be traced better by the median profitability instead by the average (see also endnote 3).

The profitability of direct investments was not always substantial in CEE (see Figure 5). At the beginning of the 1990s, when Austria’s wave of investment in CEE began,

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3 We measure profitability by return on equity (RoE). This is net profit (excluding profits and losses carried forward) by the year divided by equity (minus profit or loss for that year). Two indicators for the RoE can be calculated: Firstly, an average RoE by countries or regions which is the total sum of net profits dived by total equity of countries, regions or sectors with aggregate data. Secondly, the median of RoE can be calculated with firm level data only. The first measure can be strongly biased by a few large (loss or profit) making firms. The second measure provides a more general pattern of the development. We have to add that only the aggregate data are freely available. The firm level data have been calculated by senior officials at the Austrian National Bank by request only.
profitability was rather low, even resulting in net losses. The median of profitability was zero for all CEECs. In CEE-5 these initial period of investment (Stage 1) lasted until 1995. However, in CEE-14 where the first investments took place much later this period lasted until 1999. Only then investments became profitable. However, the period 1992-1995 was characterised by a worldwide recession. Hence also investments in EU-15 show partially huge losses. However, in this period the median of RoE in EU-15 countries was always above that of CEE.

In the second half of the 1990s, the picture has changed significantly. Profitability in CEE-5 gained a strong wind and from 1999 onwards it improved to levels far above those measured in the EU-15. Profitability was boosted, among other things, on the back of the rise in labour productivity (sales per employee). However, the high profitability of affiliates in CEE since 1996 applies only to CEE-5. Affiliates in CEE-14 became profitable in 2000 only. However, since that time the median caught up quickly to the CEE-5 median. In 2004 the RoE was 3.3% for EU-15 whilst it was 11.3% for CEE-5 and 9.0% for CEE-14 respectively. Hence profitability in CEE has overtaken profitability in the EU-15 by far.

Looking at the CEE-5 only (see Figure 6) we can see that the upswing in profitability started in all five countries nearly parallel in 1996. Five years after the first wave of investment the median profitability became positive. Until 2004 all CEE-5 except Poland reached median RoE of approximately 10% or more.

Poland is for Austria some exceptional case which is not directly comparable to the other four adjacent transition countries. Since Austria’s investment in Poland started rather late mainly due to geographical reasons (see Figure 4) also the profitability remained rather low the first couple of years after the initial period of investment. The best performance has been reached in those countries where Austrian firms invested earliest.

Since investments in CEE-14 are more recent ones it is rather interesting to look closer at these developments (see Figure 7). At the beginning in the early 1990s these investments were relatively small in numbers but have strongly grown in the period 1997-2000 (see also Figure 4). Most of these investments became profitable in 2001,
again three to four years after the initial investment. However, since then the RoE increased quickly. In 2004 the most successful affiliates have been those in Romania (10.6%) followed by those in Croatia (9.8%) and in Bulgaria (9.6%). All of them have improved their RoE to levels close to those of the CEE-5. Since actual Austrian investments in CEE are strongly assigned to these forthcoming EU-member countries prospects of Austrian investors seem to be rather promising.

![Figure 7: Return on Equity (RoE) in CEE-14, 1994-2004](image)

### 3.3 Age and Profitability

Since it is quite obvious that the vintage of investment is a detrimental factor for the profitability of investments we will look at this relation more thoroughly. Therefore we have pooled all observations for the period 1992-2004 by regions and years of investment (see Figure 8). We obviously can see the strong increase of the median profitability for all regions after the third year of the initial investment. The starting-up troubles can be observed nearly in parallel for all regions. Nevertheless, these troubles lasted shorter for investments in CEE-14 and moreover, the profitability reached far higher values thereafter. Hence it seems to be the case that Austrian investors in CEE-14 could have taken serious advantage from learning effects of the investments in CEE-5 a couple of years before. One other explanation for which unfortunately we cannot control for could be that the CEE-14 markets do have less competition regulations and are more of a monopolistic character that those of the CEE-5. Both reasons could help to increase the overall profitability.

Generally speaking, the empirical evidence of Austria’s investment supports strongly the FDI financial life cycle pattern which has been explained and hypothesised in section 2.
Since it is the age of investment which explains us most of the different profitability it is of interest to have a look at different vintages of investments by regions (see Figure 9). There it becomes evident that the average age of an investment in CEE-14 is much younger than those of the CEE-5 than those of the EU-5. Whilst the CEE-share of investments with a vintage below ten years is on average 41% this share is 21% for older investments only. Hence it is almost certain that profitability of Austrian affiliates in CEE will increase further.

Finally we have tried to normalize the distribution of affiliates for all four regions by each vintage. For that purpose we have calculated the total distribution of all affiliates by regions and use this distribution as numeraire. Then we calculated the distribution by regions for each vintage and related this distribution to the standardized one. Therefore we get a vintage indicator V which shows us if this vintage is overrepresented \((V > 1)\) or underrepresented \((0 < V < 1)\).
\[ V = \frac{S_v}{S_r} \quad (1) \]

The vintage indicator \( V \) is calculated by the share \( S \) of the affiliates in region \( r \) within a vintage \( v \) divided by the standardized share of region \( r \). If the age structure of the affiliates in all regions would be similar all vintage indicators should have the value 1. For an illustration we have calculated and depicted these indicators for all regions in Figure 10.

![Figure 10: Standardized Vintage Indicator by Regions](image)

It is obvious that the vintages of the CEE-14 affiliates are strongly overrepresented in younger vintages and vice versa. For CEE-5 the picture shows an overrepresentation of vintages between four and nine years whilst those affiliates with an age of more than ten years are not many. Conversely to this pattern both the EU-14 as well as the RoW affiliates are strongly overrepresented in the oldest vintage. This pattern emphasises that the future of the affiliates in CEE-5 and in particular in CEE-14 seems to be pretty good. Certainly we have to mention that this development is everything else than inevitable. However, the forecasts based on previous experiences seem to be bright.

### 3.4 Are the Profits Reinvested or Repatriated?

Lastly, we want to have a look at the issue what happens with the earnings of these investments. Are they reinvested or repatriated back to the parent company? As already outlined in section 2 we expect that the share of repatriations will be rather low at the early stage of investment but will increase afterwards.

First, we have to mention again that we always use unweighted firm data. To illustrate the difference with weighted repatriations we have calculated both figures (see Figure 11). Although the weighted data provide us a better picture of the total development these data might be biased by a (very) few large affiliates. Conversely, the task of our empirical work is to illustrate the pattern of a ‘typical’ affiliate. Hence we want to exclude kinds of outliers. For that purpose we use unweighted figures. As can be seen in Figure 11 the unweighted pattern is much more constant than the total pattern.
However, the total share of repatriation is much higher than the weighted one. That means that in particular a few large affiliates repatriate huge amounts of their profits.

![Figure 11: Repatriation Rate (unweighted and weighted), 1992-2004](image)

Further on we compare only unweighted figures. Figure 12 shows us at least two important features.

Firstly, the share of repatriated earnings in CEE-14 was very high within the early transition period 1992 to 1994. This exceptional huge share can be explained only because at that time investors opted exclusively for projects with a guaranteed high return in an uncertain period. They were making probably quick profits without any long-lasting investment objectives. However, the number of such investments were really rather low.

Secondly, at least since 1996 the share of repatriations has been always much lower for CCE-5 and CEE-14 in particular than for the EU-15. The main reason for this is that by far the largest part of total profits has been reinvested due to strong restructuring needs of the existing affiliates. Only in the very recent years the share of repatriated profits increased slightly.
Comparing the share of repatriated profits by vintages (see Figure 13) we see the expected pattern for all regions. The older the affiliates are the more they repatriate to the parent firm. However, the share of repatriated earnings in CEE-14 is always below that one of CEE-5 and this one is again lower that that of the EU-15 and the RoW. Also this pattern emphasizes that the need for reinvestments to reorganize and reconstruct the new affiliates in CEE is rather urgent. Hence both figures demonstrate that Austrian affiliates in CEE reinvest much more than those in the advanced countries (EU-15 and RoW). We may conclude that these investments do not only improve the competitive strength of the parent company but also the overall competitiveness of the host countries.
4 Conclusions

Mainly due to the opening-up of the CEECs Austrian foreign direct investment increased rather strongly since 1989. This development has enforced Austrian international economic activities considerably. Starting from nearly zero in 1989 Austrian investment in CEE accounted for 37.9% of Austrian total outward investment in 2004. Austrian investments in CEE started in 1989 with many loss making investments. However, current investments are rather profitable. Most of the initial investment period and its start-up troubles are already over. In 2004 total annual profits translate into an average return on equity of 8.0%. However, the rates differ quite substantially by region. They are 3.3% for investments in the EU-15 but 11.3 for CEE-5 and 9.0 for CEE-14. In particular also the most recent investments in Croatia, Romania and Bulgaria became quite profitable. The vintage is the main determinate of profitability. However, controlling for age of investment, affiliates in CEE are more profitable than affiliates in EU-15. Finally, Austrian affiliates in CEE repatriate much lower shares of their profits than affiliates in EU-15. These investments are urgently needed for the tasks of reorganisation and restructuring of existing affiliates. However, this may help also to improve the overall productivity of host countries. The remarkable profitability of Austrian affiliates in CEE confirms the wide-held impression that the opening-up of CEE economies has helped to improve the overall competitiveness of the Austrian firms considerably.

References


