Hunya, Gabor

Research Report

Recent Impacts of Foreign Direct Investment on Growth and Restructuring in Central European Transition Countries

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Recent Impacts of Foreign Direct Investment on Growth and Restructuring in Central European Transition Countries
Gábor Hunya is WIIW research economist.

Gábor Hunya

Recent Impacts of Foreign Direct Investment on Growth and Restructuring in Central European Transition Countries
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Executive summary

Recent developments have revealed that: (i) advanced transition countries have received most of the FDI to date, especially greenfield projects; (ii) more countries than in the mid-1990s are resorting to FDI in order to accelerate privatization (Czech Republic, Poland and Slovakia); and (iii) countries in South-Eastern Europe are lagging behind in terms of attracting FDI.

The impact of FDI on the balance of payments shows that this inflow of capital also creates related outflows. It can further be seen that: (i) FDI may increase the trade deficit and the service sector deficit; (ii) FDI-related income outflows may become high; and (iii) problems related to deficit-financing can be avoided by maintaining a country’s attractiveness to further investment and encouraging export-oriented investments and spillover effects.

With respect to the impact of FDI on the government budget, we conclude that: (i) FDI incentives are no substitute for a favourable investment environment; (ii) general investment incentives do not solve regional and labour market problems; (iii) government revenue increases in the wake of FDI on account of high profit rates in the foreign sector; (iv) government revenues can be lost on account of tax allowances; and (v) economic growth and income generation through FDI increase the tax base.

Structural change in manufacturing is closely linked to the penetration of foreign capital. Most recent 1999 data show that (i) foreign penetration is high in Hungary and increasing in Poland and the Czech Republic, while remaining low in Slovenia; (ii) the foreign sector enjoys advantages in terms of labour productivity, export propensity, investment propensity and profit rates; (iii) Hungary lies ahead of other countries where the upgrading of export structure is concerned; (iv) the foreign sector specializes in high-tech and export-oriented industries, the domestic sector in low-tech and domestic-market-oriented industries, thus leading to the emergence of an unhealthy duality; and (v) research confirms the existence of technology transfer through FDI, but finds no productivity spillover to the domestic sector.

Keywords: foreign direct investment; competitiveness; CEECs; manufacturing; economic policy; EU enlargement

JEL classification: D200, L500, L600, F200, F400
Gábor Hunya

Recent Impacts of Foreign Direct Investment on Growth and Restructuring in Central European Transition Countries*

1 Introduction
The paper deals with recent features of FDI in transition countries, updating and enlarging on various aspects covered in Hunya (2000a) and Hunya (2001b). First we reflect on the recent inflow trends of FDI (section 2). Then we deal with macroeconomic implications of FDI, such as the impact on the balance of payments (section 3) and the government budget (section 4). Finally we provide an updated overview of FDI penetration in the manufacturing sector and raise the problem of spillovers to the domestic sector.

2 Continuing high amounts of FDI in accession countries
Central and East European transition countries that are about to join the European Union are attractive and stable FDI targets. They had increasing inflows of FDI in the second half of the 1990s and they participated in the global downturn of FDI in 2001 only moderately. (For a complete data set on FDI in transition countries see Appendix, Table A/1.)

In the eight CEE (first-round) accession countries together, the 2001 inflow of FDI was about USD 18.5 billion or less than 3 per cent down from previous year. This relatively high inflow persists for the third consecutive year. The main driving force of FDI in the Czech Republic, Poland and Slovakia has been large scale privatization. The decline in 2001 can be explained mainly by the postponement of some privatization-related deals (Czech Telecom) and not by a change in the attractiveness of countries. Contrary to the trend, FDI inflows to Hungary recovered in 2001 to over USD 2.4 billion due to follow-up investments of established foreign subsidiaries as well as the launching of new green-field projects. Privatization got momentum in Slovenia and in some of the Baltic states which supported the increase of FDI also in these countries.

In terms of per capita FDI inflow the Czech Republic and Estonia are clearly ahead of other countries in the last three years (Table 1). For stocks per capita also Hungary stands out. These three countries have the strongest foreign penetration in their economies. More than USD 2,000 per capita is significant also in international comparison where the average is between USD 1,000 and 1,500, similar to the bulk of CEECs. Also Slovenia emerges as an

* An earlier version of this paper (‘Auswirkungen der ausländischen Direktinvestitionen auf Wachstum und Umstrukturierung in Mittel- und Osteuropa’) was published in: Austrian Foreign Trade Yearbook 2001-2002, Ministry for Economy and Labour, Vienna 2002.
important receiver of FDI in Table 2 because stocks have a more complete coverage than flow data.

### Table 1

**Accession countries: FDI inflow per capita, USD, 1995-2001**

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>248</td>
<td>126</td>
<td>615</td>
<td>447</td>
<td>478</td>
</tr>
<tr>
<td>Hungary</td>
<td>435</td>
<td>214</td>
<td>196</td>
<td>163</td>
<td>240</td>
</tr>
<tr>
<td>Poland</td>
<td>95</td>
<td>127</td>
<td>188</td>
<td>242</td>
<td>207</td>
</tr>
<tr>
<td>Slovakia</td>
<td>38</td>
<td>41</td>
<td>72</td>
<td>392</td>
<td>273</td>
</tr>
<tr>
<td>Slovenia</td>
<td>89</td>
<td>189</td>
<td>91</td>
<td>88</td>
<td>222</td>
</tr>
<tr>
<td>Estonia</td>
<td>136</td>
<td>183</td>
<td>212</td>
<td>269</td>
<td>375</td>
</tr>
<tr>
<td>Latvia</td>
<td>72</td>
<td>214</td>
<td>146</td>
<td>172</td>
<td>102</td>
</tr>
<tr>
<td>Lithuania</td>
<td>20</td>
<td>96</td>
<td>131</td>
<td>103</td>
<td>121</td>
</tr>
</tbody>
</table>

*Source: Own calculations based on WIIW Database.*

### Table 2

**Accession countries: FDI stocks per capita, USD, 1995-2001**

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>712</td>
<td>897</td>
<td>1,708</td>
<td>2,055</td>
<td>2,500</td>
</tr>
<tr>
<td>Hungary</td>
<td>1,168</td>
<td>1,587</td>
<td>1,922</td>
<td>1,942</td>
<td>2,243</td>
</tr>
<tr>
<td>Poland</td>
<td>203</td>
<td>377</td>
<td>675</td>
<td>870</td>
<td>1,009</td>
</tr>
<tr>
<td>Slovakia</td>
<td>242</td>
<td>387</td>
<td>591</td>
<td>834</td>
<td>1,017</td>
</tr>
<tr>
<td>Slovenia</td>
<td>886</td>
<td>1,112</td>
<td>1,336</td>
<td>1,411</td>
<td>1,508</td>
</tr>
<tr>
<td>Estonia</td>
<td>499</td>
<td>790</td>
<td>1,714</td>
<td>1,844</td>
<td>2,238</td>
</tr>
<tr>
<td>Latvia</td>
<td>249</td>
<td>526</td>
<td>756</td>
<td>880</td>
<td>1,021</td>
</tr>
<tr>
<td>Lithuania</td>
<td>95</td>
<td>281</td>
<td>558</td>
<td>632</td>
<td>759</td>
</tr>
</tbody>
</table>

*Source: Own calculations based on WIIW Database.*

There is some correlation between the speed of economic growth and the inflow of FDI. But the direction of causality is not clear.\(^1\) The time sequence between FDI and economic growth can be twofold: direct capital inflow either (i) stimulates economic growth and transformation or (ii) reacts to opportunities arising from economic growth and progress of transformation. Growth can be generated by FDI through additional investment measures and the transfer of technology and capabilities, as well as through improved access to export markets. On the other hand, foreign investors react positively to the consolidation of market-economy rules and resumption of economic growth. The general truth applies also to CEECs.

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\(^1\) It must be noted that measuring the contribution of FDI to economic growth does not generally lead to robust results. A link between the two phenomena is proved, but the direction in which it works is not all that clear. See Lipsey (2000).
Over the last few years, Hungary has enjoyed an economic recovery strongly supported by the inflow of FDI. As pointed out in section 5, foreign affiliates increased the country's international competitiveness and increased manufacturing investments. Slovenia, the most developed CEEC with a stable, if not very impressive rate of economic growth, has not attracted much FDI. Poland, on the other hand, started to receive substantial amounts of foreign capital once economic growth had proved robust. Over the last few years, economic growth was declining while FDI kept flowing mainly to privatization-related projects. This is similar to what the Czech Republic experienced in 1998-2000. The conclusion is that FDI keeps flowing if an economy experiences a temporary economic slowdown. In fact, the slowdown having institutional reasons may be confined to the domestic sector and foreign affiliates usually mitigate the decline of overall output.

The forecast of FDI for 2002 can be based on published privatization plans and some pre-announced green-field projects. Continuing services privatization will keep up the speed of FDI inflows especially in the banking, telecom and energy sectors. Announced green-field projects include a car producing plant of Toyota-Peugeot in the Czech Republic and bus production by Ikarus and Renault in Hungary.

More cautious investment policy characterizes established firms as a reaction to the general economic slowdown in Europe. Accession countries are more and more exposed to business cycles in the EU. They show currently a great variance of economic growth depending of the stage in their domestic business cycle that was effected by the global slowdown (Pöschl et al., 2002). The Czech economy seems hardly affected as growth is new and capacities are expanding. Hungary's robust growth of 1998-2000 declined considerably by the end of 2001. Similar downturns could be seen in Slovakia and Slovenia. Poland has a deeper but mainly home-made recession, with industrial output and exports both declining year on year in the last quarter of 2001.

CEECs were successful in overcoming transformation-related recessions by increasing FDI in the late 1990s. But now they depend more on how their major investors and the investors' home countries manage to overcome the recession. The future inflow of FDI to the CEECs will be determined by the competitive advantage those countries can offer. Most eastern economies' economic and export growth is still more rapid than of advanced countries. Growing domestic markets will attract foreign investors to the region as a whole, but most probably mainly to the countries along the EU borders. As multinationals are forced to cut costs further so as to compete in stagnating Western markets, they may be more eager to shift production to low-cost locations in transition countries. Thus, export-oriented FDI may also be attracted to the region in times of global recession.
Further structural-change related FDI include:

- decline of privatization: with privatization coming to an end in more and more CEECs, this method will attract less and less FDI;
- more takeovers in the private sector: foreign investors find attractive medium-size domestic firms, mainly those which underwent voucher or insider privatization earlier;
- outward investment: central European firms invest mainly in companies further east.

International companies may continue to find in accession countries attractive investment locations. According to a survey conducted among 129 major transnational corporations in the world (UNCTAD Press Release of 3 December 2001) the area with best prospects for FDI in the world is Central and Eastern Europe with 60 per cent of the answers expecting increasing investment. The second place is taken by China with more that 50 per cent and south-east Asia with 50 per cent. Sequence of the priority FDI locations (per cent of responses) among the accession countries: Poland (33 per cent), Hungary (20 per cent) and Czech Republic (18 per cent), the rest follow with great distance. This indicates that the advantage of these countries over lower-cost locations further east is still substantial. Increasing labour cost is corrected by higher productivity and lower transactions costs. In the latter respect, EU accession can bring further improvement.

While there are undeniable benefits of the activity of foreign affiliates in transition economies, there is a never ending debate on the costs and benefits of foreign penetration. The outgoing Hungarian prime minister just like the ruling Polish prime minister have warned against excessive take-over of foreign capital in their economies. Many such political statements lack underlying economic analysis. We can observe two disputable macroeconomic implications of the presence of foreign firms: their impact on the balance of payments and on the government budget (see Laski, 2001; UNECE, 2001).

3 Capital inflows may increase foreign trade or income deficits

High current account deficits can constrain economic growth – but much less so, if deficits are matched by long-term foreign capital inflows in the form of FDI. The current account deficit is not only financed, but also partly generated by foreign firms. FIEs (foreign investment enterprises) which absorb FDI have specific features that have an effect on various items in the current account:

- FIEs have more intensive international trade links than domestic firms both in terms of imports and exports; they thus promote trade. Their impact on the foreign trade balance varies according to the main thrust of the investment project: (i) those companies seeking out local markets, especially FIEs engaged in trade, generally have a negative foreign trade balance; (ii) those companies seeking efficiency take advantage of low
production costs in the target country in order to export products to other markets. These latter companies usually have a foreign trade surplus, the magnitude of which depends on the local value-added of the goods exported.

- FIEs rely more on imported services than do domestic companies (higher quality, familiar supplier) and thus generate a deficit in the ‘other services account’. Such imports can be used as a conduit for the transfer of tax-free profits.

- Profits generated in FIEs are more often transferred abroad than those accruing to domestic companies, although the latter is also possible.

As for the effects on trade, the foreign sector displays better export performance than the domestic sector. However, high export propensity is usually coupled with the FIEs’ high import propensity. Imports basically serve two purposes: (i) imports of machinery and inputs for production; and (ii) products to be sold on the domestic market. Whereas the first purpose can also hold true for export-oriented FIEs, the second applies to those firms that are not engaged in local production, but serve the market from without through trading companies established in the targeted market. Data for Hungary show that the FIEs’ share in generating foreign trade deficits is diminishing (Table 3). This is the outcome of export-oriented greenfield investments in manufacturing effected in the mid-1990s. In both 1999 and 2000, domestic companies enjoyed a recovery and the FIEs’ share in all three foreign trade-related indicators diminished. The export and import shares of foreign affiliates in Poland, on the other hand, have rapidly grown and currently account for a slightly increasing share in the foreign trade deficit. The enormous increase in the foreign trade deficit over the past two years was generated by both foreign and domestic companies, albeit to a greater extent by the foreign-owned firms (see also Podkaminer, 2001).

<table>
<thead>
<tr>
<th>Year</th>
<th>Hungary Export</th>
<th>Hungary Import</th>
<th>Hungary Deficit</th>
<th>Poland Export</th>
<th>Poland Import</th>
<th>Poland Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>69</td>
<td>70</td>
<td>81</td>
<td>34</td>
<td>42</td>
<td>58</td>
</tr>
<tr>
<td>1997</td>
<td>75</td>
<td>74</td>
<td>63</td>
<td>43</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>1998</td>
<td>77</td>
<td>74</td>
<td>49</td>
<td>48</td>
<td>53</td>
<td>61</td>
</tr>
<tr>
<td>1999</td>
<td>74</td>
<td>71</td>
<td>46</td>
<td>52</td>
<td>56</td>
<td>62</td>
</tr>
</tbody>
</table>

Note: Hungary 1996: excluding companies in duty-free zones which are mainly export-oriented greenfield companies.


The rate at which current account deficits are offset by net FDI inflows is an indicator of international financial stability (Table 4). This indicator significantly exceeds 100 in Bulgaria and the Czech Republic (in 2000 also in Slovakia and in 2001 in Hungary and Slovenia).
Following years of tension linked to the external financial situation, governments took steps to relieve the pressure by initiating action with regard to the exchange rate and/or FDI policy, mostly in the form of privatization. As a result, the gap between net FDI and the current account balance has narrowed significantly. 2001 was a good year here due both to low current account deficits and high FDI inflows. In the case of the other countries surveyed, FDI covers three quarters of the current account gap, except in Slovenia.

Table 4

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>36</td>
<td>259</td>
<td>398</td>
<td>157</td>
<td>182</td>
</tr>
<tr>
<td>Hungary</td>
<td>177</td>
<td>68</td>
<td>83</td>
<td>84</td>
<td>190</td>
</tr>
<tr>
<td>Poland</td>
<td>71</td>
<td>72</td>
<td>55</td>
<td>82</td>
<td>97</td>
</tr>
<tr>
<td>Slovakia</td>
<td>7</td>
<td>27</td>
<td>75</td>
<td>289</td>
<td>83</td>
</tr>
<tr>
<td>Slovenia</td>
<td>-2979</td>
<td>169</td>
<td>18</td>
<td>18</td>
<td>505</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-48</td>
<td>875</td>
<td>123</td>
<td>143</td>
<td>76</td>
</tr>
<tr>
<td>Romania</td>
<td>57</td>
<td>69</td>
<td>70</td>
<td>77</td>
<td>49</td>
</tr>
</tbody>
</table>

Source: WIIW Database, based on National Bank statistics.

Foreign direct investment inflows cannot be treated as unrequited transfers: they finance profit-oriented ventures whose foreign owners expect to realize and, to a smaller or larger extent, repatriate the profits generated as well. When a portion of the income generated by the foreign sector is transferred abroad, the gap between GDP and GNI widens. Current account deficits are partly produced by FDI inflows.

Table 5

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>Profit outflow in % of FDI stock</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>4</td>
<td>10</td>
<td>17</td>
<td>18</td>
<td>.</td>
<td>3.9</td>
</tr>
<tr>
<td>Hungary</td>
<td>21</td>
<td>47</td>
<td>43</td>
<td>50</td>
<td>34</td>
<td>4.2</td>
</tr>
<tr>
<td>Poland</td>
<td>21</td>
<td>12</td>
<td>6</td>
<td>8</td>
<td>.</td>
<td>2.1</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1</td>
<td>9</td>
<td>13</td>
<td>2</td>
<td>.</td>
<td>0.9</td>
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<tr>
<td>Slovenia</td>
<td>24</td>
<td>43</td>
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<td>73</td>
<td>30</td>
<td>4.6</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>.</td>
<td>10</td>
<td>1</td>
<td>11</td>
<td>.</td>
<td>3.2</td>
</tr>
<tr>
<td>Romania</td>
<td>2</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: WIIW Database, based on National Bank statistics.

Repatriation of profit is low in countries with recent FDI, but increases over time (Table 5). When the current inflow of FDI drops below previous levels, it can be outstripped by the
outflow of repatriated profits. This has usually been the case in Ireland since the mid-1990s. In Hungary the high rates of FDI-related income outflow, over 40 per cent, are related to the high returns achieved by greenfield investors. The rate of return in Slovenia is even higher, albeit skewed by incomplete coverage of FDI statistics. In countries where FDI is mainly privatization-related and new, such as the Czech Republic, Poland and Romania, profits and profit repatriation are low, but generally show an upward trend. Once exposed to FDI-related outflows of earnings, governments have to keep track of things, ensuring that the inflow of new FDI continues and/or the impact of FIEs on the balance of trade and services improves. Given the international competition between investment sites, firm government policy becomes essential to maintaining the competitiveness of national locations. Competitive pressure limits domestic economic policies in terms of the choice of policy targets and policy tools (e.g. tax increases); however, the likelihood of grave policy mistakes being committed may also lessen.

4 Budgetary impact of FDI promotion: evidence from Hungary and Poland

Correcting high current account deficits by restrictive monetary and fiscal policies may induce a slowdown in economic growth. In order to avoid this happening, it may be necessary to introduce FDI-related policies that increase the inflow of funds, direct it to the tradables sector and export-oriented ventures and also stimulate local sourcing of inputs. Most CEECs observe international standards; they permit no discrimination between foreign and domestic investors when applying policy incentives. This approach, however, is comparatively recent and certain policy tools, such as promotion of major investments, are de facto biased in favour of foreign investors. Over and above improving the overall attractiveness of the country, governments can apply various policies to achieve these goals. Various tax concessions and targeted policies are the most customary policy tools. For instance, local sourcing can be encouraged by supporting networking with foreign affiliates as is to be seen in the programme adopted by the Hungarian government. Greenfield investments can be encouraged by improving access to real estate and supporting infrastructure development, e.g. within the framework of industrial parks.

The competition for FDI has increased recently as more countries enter the fray and endeavour to offer more attractive sites. Economic policy has shifted from stabilization to promotion of growth; this includes FDI incentives. Hungary has the most complex incentive scheme ranging from tax and customs concessions to R&D- and infrastructure-related subsidies. Corporate tax is low in Hungary and in 2000 or 2001 Slovakia, Poland and Romania lowered their rates. Countries which have long suffered from low FDI levels, such as Slovakia and Slovenia, have recently introduced attractive incentive schemes as well.

The net effect of investment policy measures is difficult to assess. Estimates related to the costs and benefits of tax exemptions and investment subsidies are vague, and hence rare.
Privatization-related FDI is often encouraged so as to secure revenue for the budget. The sales price and terms of sale for state-owned assets are of themselves investment incentives. As for tax incentives, their impact is visible in the calculations based on corporate income statements. In Hungary, foreign affiliates have made use of the ten-year tax allowance acquired before 1994; this allowance represents 80 per cent of all the allowances they enjoy.

Table 6 shows profits and taxes in Hungary. Whereas domestic companies' corporate income (profit) was reduced by 33 per cent in 1999 owing to various taxes, the tax burden on foreign companies amounted to only 13 per cent of the gross profits. Domestic companies had to pay 97 per cent of the taxes calculated, foreign affiliates only 56 per cent. The budgetary shortfall was HUF 85 billion, i.e. 2.6 per cent of the central government budget revenue or 1.7 per cent of the general government budget revenue. Similar rates over ten years add up to remarkable orders of magnitude. Such was the price paid for rapidly increasing corporate incomes and related tax revenues. By providing corporate tax holidays, the FDI inflow could be stimulated, thereby augmenting the tax base. By virtue of the economic growth so generated, the government budget deficit in 1999 was the same in nominal terms as it had been 1997, yet it accounted for only 3 per cent of GDP as opposed to 4 per cent.

1999 data for Poland show foreign affiliates' gross profits equivalent to 54 per cent of the total economy. Here again, the tax burden on the foreign sector was lower than that on the domestic counterpart. In 1999 profits were unusually low in the Polish economy, partially on account of the slump in exports to Russia. This triggered off a series of harsh adjustment measures the following year, especially in terms of lay-offs in the workforce, and yielded a remarkable increase in labour productivity.

### Table 6

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FIEs</td>
<td>DEs</td>
</tr>
<tr>
<td>Profit/net sales, %</td>
<td>8.5</td>
<td>1.9</td>
</tr>
<tr>
<td>Tax paid/calculated tax, %</td>
<td>54.4</td>
<td>90.8</td>
</tr>
<tr>
<td>Net profit/gross profit, %</td>
<td>88</td>
<td>70</td>
</tr>
<tr>
<td>Dividends/net profit, %</td>
<td>56</td>
<td>48</td>
</tr>
</tbody>
</table>


Incentives are certainly not the most important features of FDI policy, especially in less developed countries with scarce government resources. In South-Eastern Europe, the
inflow of FDI and experience with public policies have been disappointing for reasons associated with political and economic instability, weak public governance and corrupt practices. Strengthening public institutions and building credibility can be development targets of their own.\textsuperscript{2} Less attractive host countries may not find the right investors. In the SEECs FDI may not yield the overall positive effects that are to be widely seen in the CEECs. Disappointment may well set in before the full benefits of FDI come into play (Voinea, 2001).

5 FDI penetration increases\textsuperscript{3}

Further disputed impact of foreign penetration includes the rate of dependence on foreign capital and the structural shift they cause. As presented below, these impacts are usually positive as they contribute to output and investment and also increase competitiveness. But much more is expected, like providing solution for ailing industries, mitigating regional economic disparities, as well as spillover effects to the wider economy. These expectation usually do not materialize.

The substantial amount of FDI capital flowing into the CEECs has resulted in an increase in the share of foreign affiliates in the economy (Table 7). In terms of employment and sales shares, Hungary has an especially high degree of foreign penetration, similar to that of Ireland. In Poland and Slovenia, two countries for which comparative data have been published, the degree of foreign penetration is significantly less, but also increasing.

Table 7

<table>
<thead>
<tr>
<th>Share of foreign investment enterprises in main indicators of economic units, 1999, in per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity capital</strong></td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Hungary</td>
</tr>
<tr>
<td>Poland</td>
</tr>
<tr>
<td>Slovenia</td>
</tr>
</tbody>
</table>

Note: 1) Nominal capital in cash

Coverage: Hungary: all companies providing income statements; for investments, employment and profits only non-financial corporations. – Poland: companies with at least 10 employees. – Slovenia: all companies providing income statements.

Foreign investment enterprises (FIEs): companies with at least 10% foreign share in the equity/nominal capital, except Poland where no share limit is applied


\textsuperscript{2} Detailed recommendation catalogues are prepared by FIAS, OECD and other international organizations. SEECs agreed on a list of recommendations in the framework of the Investment Compact at a meeting held on 10-11 February 2000 (OECD, 2001).

\textsuperscript{3} This section relies on Hunya (2001b).
The activities with the highest foreign penetration rates are trade and manufacturing (see below for more details). In recent years the banking sector has also attracted significant amounts of FDI. Back in the early 1990s, bank privatization policies differed greatly among the CEECs. The Czech Republic, Romania, Bulgaria, Slovakia and Slovenia refused to release bank-ownership into foreign hands. On the other hand, within the context of its deregulation programme, Hungary sold one bank after the other to foreign owners, while Poland invited minority foreign shareholders. Policies have changed substantially in recent years. Czech, Slovak, Bulgarian and Romanian banks have been sold off, one after the other, while in Poland foreigners have acquired majority ownership. The share of foreign banks in the banking assets of the CEECs plus Bulgaria, Croatia and Romania increased from 20 per cent in 1997 to more than 40 per cent in 1999 and to 55 per cent in 2000.\(^4\)

The highest foreign penetration rates are to be found in Slovakia (76 per cent), Bulgaria and Czech Republic (67 per cent) and Hungary (62 per cent); the lowest in Romania (31 per cent) and Slovenia (15 per cent). These shares increased further in 2001. Foreign banks improved services and, in some cases, reduced the spread of interest rates. Prudent banking, however, also means careful lending. Domestic small and medium-size enterprises (SMEs) find it difficult to gain access to loans, while their foreign competitors rely on cheaper funds from their home countries. With ratios of banking assets to GDP at 60 per cent in 1999 and 74 per cent in 2000, the CEECs lag far behind EU countries where the ratio stands at about 260 per cent.

### Table 8

<table>
<thead>
<tr>
<th>Equity capital</th>
<th>Employment</th>
<th>Investment</th>
<th>Sales</th>
<th>Export sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech R.</td>
<td>11.5(^1)</td>
<td>27.9</td>
<td>41.8</td>
<td>13.1</td>
</tr>
<tr>
<td>Hungary</td>
<td>67.4(^2)</td>
<td>72.7(^2)</td>
<td>72.9(^3)</td>
<td>36.1</td>
</tr>
<tr>
<td>Poland</td>
<td>29.3</td>
<td>43.2</td>
<td>50.5</td>
<td>12.0;</td>
</tr>
<tr>
<td>Slovenia</td>
<td>15.6</td>
<td>21.6</td>
<td>21.8</td>
<td>10.1</td>
</tr>
</tbody>
</table>

\(^1\) Czech Republic 1996: own capital. \(^2\) Hungary: nominal capital in cash.

**Size coverage:** Hungary, Slovenia: all firms; Czech Republic: more than 100 employees; Romania: more than 20 employees; Poland: more than 5 employees.

**Source:** WIIW Database on foreign investment enterprises.

The extent of foreign penetration in manufacturing can be described in terms of the share of foreign investment enterprises (FIEs) in four indicators: equity capital, sales or output,

employment and investment outlays (Table 8). The importance of FIEs has increased for all five countries and for almost all indicators over the period 1996-1999. As capital indicators are not unified, the most widespread common indicators, sales and employment, are discussed in more detail below. A comparison of the development of foreign penetration over time is hindered by the distortions caused by shifts from the domestic to the foreign sector.

Countries also display different development paths in terms of foreign penetration in manufacturing. Hungary has the highest share of FIEs on all counts. Seventy-three per cent of the country’s manufacturing sales come from FIEs; in 1999 they employed 46 per cent of the labour force in the manufacturing sector. In Hungary, foreign penetration in manufacturing had already reached 50 per cent prior to 1994. The share of FIEs increased further in the second half of the 1990s thus Hungary become one of the most foreign countries in the world in line with Ireland and Malaysia.

Poland occupies second place, with 49 per cent of sales and 29 per cent of employment. Poland had a later start, but experienced a rapid expansion of foreign penetration in the late 1990s owing to the upswing in privatization which stimulated foreign takeovers. The rapidly growing domestic market also attracted greenfield investment. While economic growth on the whole was strong, its main driving force shifted from newly established domestic small and medium-sized enterprises (SMEs) to foreign affiliates.

The Czech Republic comes next, with 42 per cent and 27 per cent of sales and employment, respectively. The difference between Hungary, on the one hand, and the Czech Republic and Poland, on the other, was threefold in 1994 and narrowed to less than double in 1999. The most dynamic increase has been recorded in the Czech Republic: almost doubled between 1994 and 1996, and once again in the three years thereafter. The foreign sector displayed rapid expansion not only in terms of capital and sales, but also in terms of employment.

In terms of all indicators, Slovenia has had the lowest rate of foreign penetration of all CEECs. Although the share of FIEs in sales increased, the gap in comparison to the other four countries widened between 1996 and 1999. The Slovene economy has maintained its strong international competitive position mainly through the successful operations of domestically owned companies.

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5 Research underlying this part was partly undertaken with the support of the European Union’s Phare ACE Programme 1997 (R97-8112-R; ‘Impact of foreign direct investment on the international competitiveness of CEEC manufacturing and eastern enlargement’). The content of this article is the sole responsibility of the author. In no way does it represent the view of the European Union Commission or its services. For more detailed findings see Hunya (2000a), Hunya (2000b), Hunya (2001a) and Hunya (2001b).
Labour productivity in FIEs is on average as much as double that of domestic enterprises. In this respect, the CEECs differed little in the 1990s. The exceptions (with lower gaps) were Poland prior to 1998 and Slovenia. Countries varied in terms of productivity dynamics over the period 1994-1999. The gap between FIEs and domestic enterprises increased rapidly in Hungary up until 1996, whereafter it stabilized for two years only to increase again in 1999. In the latter year, FIEs were 3.1 times more productive than domestic enterprises; this is by far the largest gap of all CEECs. The difference is due to the impact of the highly productive new foreign-owned greenfield assembly plants. In Poland, the productivity gap increased from 1.5 to 2.3 over the period 1994-1999, while a stable gap of 1.9 was characteristic of the Czech Republic throughout the period 1995-1998. The productivity gaps in the Czech Republic, Poland and Slovenia are now very similar.

FIE leadership in terms of labour productivity is not specific to the CEECs; the distinctive feature, however, is that in this instance it is exceptionally large. In OECD countries, the productivity advantage of FIEs over average productivity in the manufacturing sector is only 30 per cent (OECD, 1996). The larger and the more specialized the FIE sector, the larger its lead over the domestically owned sector. The higher productivity of foreign affiliates is due to lower labour inputs and narrower specialization, as well as the absence of management and research functions. Moreover, in transition economies FIEs usually dispose of more advanced technology, management and marketing compared to domestic, especially state-owned, enterprises. The productivity advantage exists in terms of both technology used and higher output values achieved by virtue of higher sales prices. Higher prices for affiliate products can be obtained through such features as better market positions and western brand names: the revenue derived from the higher prices, however, may be diverted through transfer pricing.

The ongoing learning process in domestically owned companies may, with time, lead to direct spillovers – i.e. to narrower gaps between FIEs and domestic enterprises. Indirect spillovers may take place through the income and knowledge transferred by individual employees. If the FIE sector differs markedly from the domestic sector, the two segments of the economy may find it difficult to co-operate, and the foreign sector may function as an enclave. In that case, direct spillover effects do not take place.

Capital endowment is higher in the FIE sector than in domestically owned enterprises. This may be seen to confirm that foreign investors use more recent, capital-intensive and labour-saving technology. It also reflects the concentration of FDI in manufacturing industries with high capital intensity. In the Czech Republic, Poland and Slovenia, capital productivity (sales per assets) is higher in FIEs than in domestic enterprises. In these countries, FIEs enjoy an obvious advantage in terms of total factor productivity.
Productivity indicators reveal significant differences between companies in the CEECs, apparently due to foreign penetration. The duality of performance in the manufacturing sector can be seen in two respects:

- Dichotomy between modern, foreign-dominated industries, on the one hand, and traditional industries with both domestic and foreign companies on the other. This duality emerged in all the countries examined and has grown over time. The extreme case is Hungary, where nine foreign-dominated industries represent 50 per cent of manufacturing sales.

- Dichotomy of performance between foreign and domestically owned companies in the same industry. The foreign sector is more efficient and more export-oriented than the domestic sector. This is particularly prominent in Hungary and the least marked in Slovenia.

The strength of the above argument is weakened for want of a database capable of controlling for companies shifting from the domestic to the foreign sector. Using two unique panel data sets that cover almost all firms in Slovenia and Estonia between 1994 and 1998, Damijan et al. (2001) performed a test for intra-industry spillovers from FDI. After controlling for potential selection bias for foreign investment decisions, common economic policy influences and industry effects, it was shown that technology is transferred through the parent-affiliate relationship and arm’s-length trade, but that the expected spillover benefits to purely domestic enterprises rarely materialize. Without these benefits, restructuring and development of domestic enterprises may be inhibited, thereby reinforcing fears that an enclave economy might be emerging in both countries.

As for the Czech Republic, a nation-wide, firm-level panel data set comprising 2,500 manufacturing firms analysed by Zemplinerová and Jarolim (2000) showed that firms with foreign participation achieved higher productivity growth rates than domestically owned firms. Contrary to previous studies conducted by Djankov and Hoekman (2000), who worked with much smaller sample sizes, the results of this dynamic empirical analysis suggest that foreign firms achieved significantly higher growth rates of total factor productivity than domestic firms. This fact confirms the important role that FDI plays in the transfer of technological, marketing and managerial knowledge to affiliates. The existence of positive or negative spillovers from foreign firms in an industry was not proven. Unlike Djankov and Hoekman who found negative and statistically significant spillover effects of FDI, Zemplinerová and Jarolim indicate that the presence of FDI has a positive, but statistically insignificant effect on the total factor productivity growth of domestic firms. (For a summary of recent research findings on spillovers in CEECs, see UNECE, 2001, chapter 5.)
In the CEECs, the main branch with above-average foreign penetration common to all countries is the manufacture of motor vehicles. Foreign penetration in this industry is over 80 per cent. The automotive industry was attracted to these countries on two counts: unsatisfied domestic demand and favourable conditions for low-cost production. Tobacco production is also usually foreign-owned -- only major international corporations own the brand names and are able to cover advertising costs. A high foreign presence is to be observed in the manufacture of electrical machinery and equipment in the Czech Republic and Hungary. In countries, where the paper industry is a major export industry, this branch has also come under foreign control. High foreign penetration in the chemical industry is specific to Hungary, owing most probably to the pharmaceutical industry having established itself as one of the most internationalized activities world-wide. Data for Romania by industrial activity show a much lower rate of overall penetration and a structure radically different to that of the CEECs, as well as fewer export-oriented industries. Foreign penetration is highest in the export-oriented light industry sector where cheap labour is used to produce textiles and clothing, shoes and furniture. Domestic market-oriented industries such as the production of food and electrical machinery display much lower rates of foreign penetration than those in the CEECs.

<table>
<thead>
<tr>
<th>A</th>
<th>1993</th>
<th>1999</th>
<th>Domestic sales 1999</th>
<th>Export sales 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales total, FIEs' share</td>
<td>41.3</td>
<td>71.8</td>
<td>56.4</td>
<td>88.6</td>
</tr>
<tr>
<td>Sales total, domestic companies' share</td>
<td>58.7</td>
<td>28.2</td>
<td>43.6</td>
<td>11.4</td>
</tr>
<tr>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

B

| High-tech | 11.4 | 26.4 | 10.4 | 37.5 |
| Medium-tech | 25.3 | 32.6 | 21.6 | 41.8 |
| Low-tech | 63.3 | 41.0 | 68.8 | 20.7 |
| Manufacturing | 100 | 100 | 100 | 100 |

Note: (ISIC codes):
High-tech branches: 2423, 30, 32, 31, 33;
Medium-tech branches: 241, 242 (less 2423), 251, 252, 274, 29, 352, 34, 353, 359, 36, 37;
Low-tech branches: 15, 16, 17, 18, 19, 20, 21, 22, 231, 232, 26, 271, 272, 273, 28, 351.

Owing to the presence of foreign firms, the share of the so-called 'high-tech' branches has increased in the manufacturing sector in Hungary, the Czech Republic and Poland, but not in Romania. Technological upgrading has been more rapid in Hungary than in other CEECs. Table 9 shows a pronounced increase in 'high-tech' sectors and, to a lesser extent, in 'medium-tech' sectors in terms of manufacturing sales over the period 1993-
1999. As a consequence, the share of ‘low-tech’ branches decreased radically over that period. This kind of structural change has helped Hungarian manufacturers to improve their sectoral and macroeconomic level of competitiveness, increase export earnings and support economic growth.

CEECs’ export competitiveness in terms of penetrating EU markets can be measured by the share and volume of each country in EU imports (Table 10). Hungary and the Czech Republic have increased their exports to the EU (EU-15 imports) both over time and in terms of market shares. Low export dynamism and stagnating market shares characterize Poland, while Slovenia’s market share can be seen to have decreased.

Table 10

<table>
<thead>
<tr>
<th>Item</th>
<th>Czech Republic</th>
<th>Hungary</th>
<th>Poland</th>
<th>Slovenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market share 1995</td>
<td>1.94</td>
<td>1.65</td>
<td>2.53</td>
<td>0.97</td>
</tr>
<tr>
<td>Market share 1999</td>
<td>2.54</td>
<td>2.65</td>
<td>2.57</td>
<td>0.83</td>
</tr>
<tr>
<td>Market share change, percentage point</td>
<td>0.60</td>
<td>1.00</td>
<td>0.04</td>
<td>-0.15</td>
</tr>
<tr>
<td>Market share change</td>
<td>131</td>
<td>160</td>
<td>102</td>
<td>85</td>
</tr>
<tr>
<td>Export volume change</td>
<td>64.4</td>
<td>96.3</td>
<td>32.9</td>
<td>22.7</td>
</tr>
<tr>
<td>Share of foreign affiliates in export sales, 1999</td>
<td>60.5</td>
<td>88.8</td>
<td>59.8</td>
<td>30.3</td>
</tr>
<tr>
<td>Foreign affiliates: export sales/sales, 1999</td>
<td>60.3</td>
<td>60.0</td>
<td>27.4</td>
<td>68.2</td>
</tr>
</tbody>
</table>

Sources: Eurostat Comext database.

The relationship between market share development and foreign penetration is most obvious in the case of two opposites: Hungary and Slovenia. Hungary’s rapid market gains were the result of foreign affiliates’ restructuring and market-conquering activity. Slovenia recorded low FDI, a low share of foreign affiliates in export sales and a loss in its share of the EU market. Next to Hungary, the Czech Republic and Poland have recorded the largest foreign share in terms of exports, but only the Czech Republic managed to augment its share in the EU market. This was due to the fact that FDI in Poland was directed more towards domestic market-oriented activities; this is borne out by export sales which stood as low as 27 per cent of total sales compared to about 60 per cent in the other countries.

6 Conclusions

The transition countries which participate in the process of EU enlargement have become firm parts of the international business networks. They host an increasing number of foreign affiliates and a stable amount of FDI inflow. Foreign investment has accelerated the transformation process and helped improve international competitiveness.
Before enlargement will take place, the accession countries will to a large extent become dominated by foreign, mainly European firms. Liberalization and privatization will be completed. They may not attract much new FDI due to these factors but by becoming members of the single European market. The fall of border controls and legal harmonization will lower transaction costs and make the flow of goods and capital easier.

The main problems related to the increasing dependence on foreign affiliates have been identified as: (i) lack of spillovers from the foreign to the domestic firms, (ii) increasing transfer abroad of FDI-related revenues, and (iii) tax allowances decrease tax revenues for too long.
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Pitti, Zoltán (2000), 'A társasági formában muködő vállalkozások szerepe a magyar gazdaság új fejlődési pályára állításában' (The role of corporations in putting the Hungarian economy on a new development path), Budapest College of Management, Budapest, mimeo.


Appendix
**Table A/1**

**Foreign direct investment inflow in transition countries**

based on the balance of payments, USD million

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Czech Republic</strong></td>
<td>654</td>
<td>869</td>
<td>2562</td>
<td>1428</td>
<td>1300</td>
<td>3718</td>
<td>6324</td>
<td>4595</td>
<td>4916</td>
</tr>
<tr>
<td><strong>Hungary</strong></td>
<td>2339</td>
<td>1147</td>
<td>4453</td>
<td>2275</td>
<td>2173</td>
<td>2036</td>
<td>1970</td>
<td>1649</td>
<td>2443</td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td>1715</td>
<td>1875</td>
<td>3659</td>
<td>4498</td>
<td>4908</td>
<td>6365</td>
<td>7270</td>
<td>9342</td>
<td>8000</td>
</tr>
<tr>
<td><strong>Slovak Republic</strong></td>
<td>168</td>
<td>250</td>
<td>202</td>
<td>330</td>
<td>220</td>
<td>684</td>
<td>390</td>
<td>2117</td>
<td>1475</td>
</tr>
<tr>
<td><strong>Slovenia</strong></td>
<td>113</td>
<td>128</td>
<td>177</td>
<td>194</td>
<td>375</td>
<td>248</td>
<td>181</td>
<td>176</td>
<td>442</td>
</tr>
<tr>
<td><strong>Total (5)</strong></td>
<td>4988</td>
<td>4269</td>
<td>11053</td>
<td>8725</td>
<td>8977</td>
<td>13051</td>
<td>16135</td>
<td>17879</td>
<td>17276</td>
</tr>
<tr>
<td><strong>Bulgaria</strong></td>
<td>40</td>
<td>105</td>
<td>90</td>
<td>109</td>
<td>505</td>
<td>537</td>
<td>819</td>
<td>1002</td>
<td>651</td>
</tr>
<tr>
<td><strong>Romania</strong></td>
<td>94</td>
<td>341</td>
<td>419</td>
<td>263</td>
<td>1215</td>
<td>2031</td>
<td>1041</td>
<td>1040</td>
<td>1137</td>
</tr>
<tr>
<td><strong>Total (7)</strong></td>
<td>5122</td>
<td>4715</td>
<td>11563</td>
<td>9097</td>
<td>10697</td>
<td>15619</td>
<td>17995</td>
<td>19920</td>
<td>19064</td>
</tr>
<tr>
<td><strong>Estonia</strong></td>
<td>162</td>
<td>215</td>
<td>202</td>
<td>151</td>
<td>267</td>
<td>581</td>
<td>305</td>
<td>387</td>
<td>538</td>
</tr>
<tr>
<td><strong>Latvia</strong></td>
<td>44</td>
<td>213</td>
<td>178</td>
<td>382</td>
<td>521</td>
<td>357</td>
<td>348</td>
<td>408</td>
<td>240</td>
</tr>
<tr>
<td><strong>Lithuania</strong></td>
<td>31</td>
<td>31</td>
<td>73</td>
<td>152</td>
<td>355</td>
<td>926</td>
<td>486</td>
<td>379</td>
<td>446</td>
</tr>
<tr>
<td><strong>Total (10)</strong></td>
<td>5359</td>
<td>5174</td>
<td>12015</td>
<td>9782</td>
<td>11839</td>
<td>17482</td>
<td>19134</td>
<td>21093</td>
<td>20288</td>
</tr>
<tr>
<td><strong>Croatia</strong></td>
<td>120</td>
<td>117</td>
<td>121</td>
<td>516</td>
<td>551</td>
<td>1014</td>
<td>1619</td>
<td>1124</td>
<td>1200</td>
</tr>
<tr>
<td><strong>Macedonia</strong></td>
<td>.</td>
<td>19</td>
<td>9</td>
<td>11</td>
<td>16</td>
<td>118</td>
<td>32</td>
<td>176</td>
<td>500</td>
</tr>
<tr>
<td><strong>Bosnia &amp; Herzegovina</strong></td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>100</td>
<td>90</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td><strong>Yugoslavia</strong></td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>740</td>
<td>113</td>
<td>112</td>
<td>25</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td><strong>Russia</strong></td>
<td>1211</td>
<td>690</td>
<td>2065</td>
<td>2579</td>
<td>4865</td>
<td>2762</td>
<td>3309</td>
<td>2714</td>
<td>3000</td>
</tr>
<tr>
<td><strong>Ukraine</strong></td>
<td>200</td>
<td>159</td>
<td>267</td>
<td>521</td>
<td>623</td>
<td>743</td>
<td>496</td>
<td>595</td>
<td>800</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6891</td>
<td>6159</td>
<td>14477</td>
<td>13409</td>
<td>18633</td>
<td>22331</td>
<td>24792</td>
<td>25878</td>
<td>26288</td>
</tr>
</tbody>
</table>

(Table A/1 continued)
Table A/1 continued

Remarks (statistical coverage):

Hungary: equity capital cash + loans from 1996.
Poland: equity capital cash + in kind + reinvested earnings + loans - on a transaction basis.
Slovak Republic: equity capital cash + reinvested earnings from 1997 + loans from 1997; banking sector included from 1996.
Bulgaria: equity capital cash + in kind + reinvested earnings from 98 + loans from 1997.
Romania: equity capital cash + in kind + loans from 2000.
Estonia: equity capital cash + reinvested earnings + loans
Latvia: equity capital cash + reinvested earnings from 1996 + loans from 1996.
Macedonia: equity capital cash + in kind + loans; inflows net.
Bosnia & Herzegovina: inflow net.
Yugoslavia: inflow net.

Source: National Banks of respective countries.
<table>
<thead>
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(Table A/2 continued)
Table A/2 continued

Remarks (statistical coverage):

Czech Republic: equity capital cash + in kind + reinvested earnings from 1997 + loans from 1997; excluding privatization revenues.
Hungary: equity capital cash + loans from 1996.
Poland: equity capital cash + in kind + reinvested earnings + loans - on a transaction basis.
Slovak Republic: equity capital + reinvested earnings + loans.
Slovenia: equity capital + reinvested earnings + loans.

Romania: equity capital cash + in kind + loans from 2000.
Estonia: equity capital + reinvested earnings + loans.
Latvia: equity capital + reinvested earnings from 1996 + loans from 1996.
Lithuania: equity capital + reinvested earnings + loans.
Macedonia: equity capital cash + in kind + loans.
Bosnia & Herzegovina: inflow net.
Yugoslavia: inflow net.


Source:
For Czech Republic, Hungary, Poland 1, Slovak Republic, Slovenia, Estonia, Latvia, Lithuania, Croatia: National Banks of respective countries according to international investment position.
For Bulgaria, Romania, Macedonia, Bosnia & Herzegovina, Yugoslavia, Russia, Ukraine: cumulated US dollar inflows based on Table 1.
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