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**COMPETITIVENESS AND ECONOMIC
POLICIES RELATED TO FOREIGN DIRECT
INVESTMENT**

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Summary

Foreign direct investment may improve productivity through technology transfer on the one hand, and it may also have other positive external effects through corporate linkages (e.g. market access, or improved terms of financing) on the other hand, thus promoting economic growth. These beneficial effects are not automatic, though. Until the mid-nineties Hungary had played a leading role within the region in attracting investments. After 1999, however, the country started accumulating increasing competitive disadvantages as compared to its competitors. Even though stock data adjusted for reinvested profits show less of a lag, the post-1999 figures still indicate a gradual deterioration.

The positive economic effects of the foreign investments already in Hungary have also fallen short of expectations. The most important positive impacts comprised the competition from firms with foreign owners and the restructuring of the economy. However, foreign-owned companies have established few linkages with Hungarian economic actors, even though the number of such links has been increasing.

In order to improve our capacity to attract capital it would be important to improve the general investment environment by eliminating macro-economic imbalances and by developing infrastructure as well as education and training. The treatment of the corporate income tax as an incentive to attract investment and the reduction of other taxes, contributions and local taxes would also be worth considering. The institution system of investment promotion would also require considerable changes: a single, more independent, more proactive organisation would be needed with decision making powers and concentrating exclusively on investment promotion. That institution must have a co-ordination role in granting benefits.

Following our EU accession, the emphasis may be shifted to financial incentives, with fiscal incentives diminishing in significance – while, because of the EU regulations, the differences in investment promotion between Hungary and its main competitors will become smaller, and the regional incentive competition will lose some of its intensity. The system of investment incentives should be redesigned in order to use arrangements allowed and cofinanced under the EU rules. At the same time we must keep in mind that the EU places emphasis on compliance with the aid ceiling rather than on the form of assistance.

The positive impacts of foreign direct investment on the host economy and its integration into the host economy is at least as important as the attraction of new investments, though these former are more difficult to influence with economic policy instruments.

Introduction

The influx of foreign direct investment (FDI) into the Hungarian economy started in the late nineties. On the whole, Hungarian economic policy has maintained a system of regulations and allowances favourable to investments all the way through. Though there is general agreement among Hungarian scholars that investment promotion plays no part in attracting capital, this paper sets out to prove, primarily through international examples, that as target areas for investment are becoming increasingly similar on a regional and global scale alike, the role of various incentives and regulatory instruments will in all probability become more important.

Undertakings with foreign ownership have played a decisive role in the performance of the Hungarian economy, primarily after the second half of the nineties. For a long time Hungary was the leading country in the region in terms of the inward investment, but starting in 2000, statistics indicated a significant drop in the volume of capital inflows. Hungary's ability to attract capital has declined both in absolute terms (as compared to the flows of previous years) and in relative terms (compared to our key competitors). Though FDI already in Hungary have considerably "catalysed", accelerated transition, they did not live up to the expectations for instance in respect of the use of domestic suppliers. In that situation the role of economic policy becomes more important in attracting capital and reversing the adverse trends, especially in two areas: one important objective is to increase the annual inflow, the other one is to more fully exploit the beneficial effects on the host economy.

1. Why is FDI good for the economy?

For a country, the relationship of FDI and competitiveness is best conveyed through the impact of foreign direct investment on economic growth. Theory does not provide a definitive answer to the question whether the inflow of capital is beneficial for an economy.

According to the neoclassical growth theory model, foreign direct investment does not affect the long term growth rate. This is understandable if we consider the assumptions of the model, namely: constant economies of scale, decreasing marginal products of inputs, positive substitution elasticity of inputs and perfect competition. The exogenous increase of FDI increases the amount of capital per capita, but due to the assumptions this can only be transitional, as the declining returns on the capital put a constraint on that growth. FDI may influence the long term growth rate through its impact on two exogenous factors: one is technological development, the other one is the change in the amount of labour employed. That is, the effect of (foreign direct) investment can be positive on growth only if it raises the level of technology and of employment in the country.

The endogenous growth theory, which dispenses with the assumption of perfect competition, leaves more scope for the impact of FDI on growth. In this theoretical framework investment, including FDI, affects the rate of growth through research and development (R&D) or through its impact on human capital. Even if the return on investment is declining, FDI may influence growth through

externalities. These may include the knowledge “leaking” into the local economy through the subsidiary (organisation forms, improvement of human capital, improvement of fixed assets), as well as effects through the various contacts of the subsidiary with local companies (joint ventures, technical-technological links, technology transfer, orders, sale of intermediate products, market access, improved financing conditions, more intense competition generated by the presence of the subsidiaries, etc.). These factors increase the productivity of the subsidiary and of the connecting companies in the host economy. Technology transfer and the local ripple effects prevent the decline of the marginal productivity of capital, thus facilitating longer term higher growth rates induced by endogenous factors. Thus the existence of such externalities is one of the preconditions of the positive effect of FDI on the host economy.

From the aspect of companies, the most important actors are the multinational companies implementing the FDI. Such companies carry out the most R&D activities. Consequently, they are the most important sources of technology transfer. (In our broad interpretation, technology also includes organisation and management skills). The host economy may receive such technologies directly from the local subsidiaries of multinational companies, or indirectly through transactions between the subsidiary and other firms of the host economy. The impact of the technology transfer may be manifested in improved productivity, the transformation of the industry structure, the increase of R&D expenditures, the change of the export (and import) structure, or the change of the human capital base. However, the presence of FDI does not guarantee a technology transfer with positive impacts on economic growth. Perhaps inappropriate technology is transferred (e.g. as compared to the level of the human capital), or no significant technology transfer occurs, technology does not spread (e.g. due to institutional deficiencies, the lack of receptiveness of the local economy or the isolation of the subsidiary).

The various theoretical schools attribute different impacts to foreign direct investment on economic growth. Consequently, the few empirical studies focusing specifically on the role of FDI in growth yield controversial results. In a number of cases, studies covering several countries did not find a significant/positive correlation between economic growth and FDI (e.g. de Mello (1999), Crankovic and Levin (2000), Lipsey (2000)). One of the most important “counter-examples” is the analysis of Borenstein, de Gregorio and Lee (1998), which proves that FDI may have a positive impact on economic growth depending on the level of human capital and the capital absorption capacity in the host country. If the quality of human capital exceeds a threshold (which is measured by the ratio of persons participating in secondary education), foreign direct investments may significantly increase the rate of growth. Hermes and Lensink (2000) came to a similar conclusion, when looking at developing countries they found that not only human capital but also financial markets must reach a certain level of development. The role of financial markets in this respect is also emphasised by Alfaro, Chanda, Ozcan and Sayek (2001).¹ In the case of transition countries between 1990 and 1998, Campos and Kinoshita (2002)

¹ Another positive example: According to Xu (2000), FDI promotes the growth of the total factor productivity (TFP).

found that FDI had a positive and significant impact on economic growth. They thought to reinforce the findings of Borenstein, de Gregorio and Lee (1998), emphasizing that in transition countries the quality of human capital is above the threshold required for the positive impacts of FDI on economic growth to materialise.

Methodological issues

The most reliable figures concerning foreign direct investment are derived from the balance of payments, and that is also the most widely used source of data in international studies and comparisons. However, the balance of payments does not have the objective of disclosing the actual influx of direct investment into the economy concerned. The balance of payments fundamentally aims to register cash and capital movements between residents and non-residents of the country. This is why foreign direct investments include items that should not be considered as such from the aspect of industrial economics, such as short term intra-company loans, including commercial loans.

There is also another problem relating to the comparability of data disclosed in the balance of payments. The standardisation of those data is ongoing under the auspices of international organisations (the IMF and the OECD). Not every country discloses data in compliance with the so-called benchmark definition² devised by the two organisations. The figures of the most developed transition countries, with the exception of Hungary, complied with the requirements of the definition by the late nineties. In case of Hungary, the FDI figure still does not contain reinvested profits³. Consequently, the annual inflow is significantly underestimated because, unlike its key competitors, the country is in the phase of FDI inflow where reinvested profits are estimated to constitute the most significant component of the annual flow, contributing as much as half of the total flow in certain years. (Antalóczy, Sass, 2000).

2. The role of the state in attracting capital

Why do companies invest abroad? Dunning (1993) developed his theory by synthesizing the previously published theories, because existing explanations could not fully justify the existence of foreign direct investment. According to Dunning, international production is the result of a process affected by ownership, internalisation and localisation advantages. For our purposes the last one is the most important: the factors based on which an investor selects a location for a project. These include the factors affecting the availability of local inputs such as natural

² Figures must comply with the so-called 10% rule (that is, an inward flow is considered FDI if the ownership holding exceeds 10%, below that threshold it is portfolio investment, irrespective of the form of the flow), and it must contain the following three components: equity investments, reinvested profit and intra-company loan transactions.

³ According to plans, 2004 will be the first year when the NBH discloses "full" FDI data. Hungary is not the only country to have this problem. It is enough to look through the IMF statistics to realise that reporting is insufficient in case of some EU Member States as well. This is reinforced by Feenstra (1998) who states that the FDI statistics of a number of countries contain no reinvested profits (e.g. Japan), and this is probably one of the reasons for the discrepancy in the global inward and outward FDI figures.

resources, the size of the market, geographical location, the position of the economy, the cultural and political environment, factor prices, transport costs, certain elements of the economic policy of the government (trade policy, industrial policy, budget policy, tax policy etc.). In other words, the economic policy of the government may influence the ability of a country to attract capital.

Having realised the potential positive impacts of FDI on the economy and on competitiveness, governments in recent years have considerably lowered barriers to investment, opening up more and more sectors to foreign direct investment (UNCTAD, 2002). Furthermore, a number of countries have tried to improve the general investment environment and introduced various incentives to (foreign) investors. These governments could have been motivated in part by macro-economic problems (for instance the need to reduce the high debt, to increase the low growth rate or to reduce unemployment).

On the other hand, and more importantly, the processes of globalisation and regionalisation have created a new situation where the role of investment incentives has become more important in the eyes of governments (Blomström, Kokko, 2003). As a result of international (GATT, WTO) and regional (e.g. EU, NAFTA) trade liberalisation, the standardisation of regulations and unilateral liberalisation measures as well as technical-technological innovation and the advance of telecommunication, markets have become increasingly integrated, and the size of the market has been devalued as a factor in selecting the location of investment projects. Thus investments producing for exports have gained in significance, and the chances of smaller countries have improved to attract investments. On the other hand, national economic policies have fewer and fewer instruments due to the processes of globalisation/regionalisation, therefore the “remaining instruments”, including FDI promotion tools, will become much more important.

Thirdly, the emphasis on attracting investment has resulted in a kind of “incentive competition” among countries (Oman, 2000), and the ability of countries not entering that competition to attract capital may be seriously compromised. The intensification of the “incentive competition” is indicated by the increase of government subsidies per job created by FDI. According to the figures of UNCTAD (2002, p. 205), this value was often above USD 100,000, for instance in 2000 in case of the investment of Intel in Israel or of Honda in the US. From among EU Member States, Germany (Dow-project, USD 3,400,000/job) and the United Kingdom (Ford-, Dupont-, Hyundai-projects) are among the most generous providers of assistance. (That generosity with aid raises the question whether in such cases the investor is the absolute winner in the competition between countries. Haaland and Wooton (1993) propose that the level of subsidies may be so high that the foreign investor may be the net beneficiary even if significant spillovers exist in the host economy.)

The progress of globalisation/regionalisation has yet another important consequence concerning the investment incentive competition: as the integration of markets has advanced further on regional than on global level, competition is likely to arise between areas within regions covering more than one countries or between regions within a large country. This is because those regions offer similar conditions, and incentives may have greater weight in the choice between them.

It is questionable how much the site selection decision of investors can be influenced by the tools of FDI promotion. According to the literature, the general state of the host economy is the most important consideration in the site selection decisions of multinational companies. Depending on the type of investment (whether it produces for the domestic market or exports, and the production factor it will most intensively use in the host economy), they look at, for example, the size of the market, the income levels, the characteristics of human capital (qualifications, productivity, relative wages), the infrastructure system, political and economic stability, regulatory and economic policy framework. The type of the investment determines the weight of each factor. This has been underpinned by the empirical literature looking at the capital flows between countries, because for a long time researches insisted that benefits and incentives played no part in the site selection decisions.

Empirical findings

The empirical studies published in the seventies and eighties did not confirm the role of investment incentives in the choice between locations offering similar conditions either.⁴ Indeed, in this period the role of benefits could not have been central.

According to more recent empirical findings, in line with what has been said about the consequences of globalisation/regionalisation, the location of investment projects may also be affected by the various incentives offered by governments. According to empirical studies, the impact of allowances was small in the nineties. The studies published in this period state that benefits have an impact on the site selection decision, but that impact is not decisive. Incentives in the narrow sense play a greater part in the competition of sites within the region concerned (whether encompassing several countries, or within a single country), which are similar in terms of their other characteristics. According to the study of Blomström, Kokko, Zejan (2000) examining data from several countries in the nineties, the international distribution of FDI is determined by market characteristics, relative production costs and the availability of production factors. Incentives have only a limited effect on FDI flows. Christodoulou (1996) proves the critical importance of incentives where two-three shortlisted sites “tie”.

⁴ We should note, however, that important methodological problems were encountered during the examination of the role of benefits. Most importantly, the studies using econometric methods generally limited incentives to easily quantifiable tax concessions. However, even if more complex incentive indicators are used, a country offering significant benefits in international comparison may attract barely any capital if, for instance, its similarly positioned neighbour offers even greater advantages. Or else, a country with poor real economic indicators may offer relatively sizable benefits and still attract little investment.

The problem with questionnaire-interview based surveys is that they generally simply accept investor responses that their investment decision was not affected by the nature and range of incentives available. (It is important to note that investors effectively have a disincentive against admitting that incentives matter. On the one hand, this would cast doubt on their long term commitment to the area/city/country concerned, and on the other hand, they may feel that it would be inappropriate for a wealthy company to worry about the few million dollars that the incentives mean.)

However, the most recent studies published after 2000 point out that as a result of the advancement of information technology, telecommunication, other techniques and technologies and the progress of globalisation the various locations are becoming increasingly alike, and in that situation the incentives and benefits are becoming increasingly important. (See e.g. studies of Hassett and Hubbard (1997), Clark (2000), or Taylor (2000), which empirically present the significance of (tax) incentives). The direction of the change is indicated by Altshuler, Grubert and Newlon (1998) as well, who state that tax elasticity of FDI – FDI increment as a function of tax benefit – almost doubled between 1984 and 1992. In some questionnaire surveys managers of multinational companies have admitted that incentives play an increasing part in their site selection decisions (Easson, 2001).⁵

Few empirical studies have examined the role of incentives in central-eastern European countries. Findings are controversial, but taking into consideration methodological problems and ‘psychological’ motives of investors it appears likely that incentives play a growing role in attracting investments in the (former) transition countries as well. According to the findings of Lankes and Venables (1997), incentives had no major role in the site selection of foreign direct investments in the region. Éltető and Sass (1998) reached a similar conclusion from the examination of investors in Hungary. (It should be noted that both studies relied on a questionnaire technique. It is a general experience that responses given to questionnaires are often not the same as the ones received during (in-depth) interviews.) The OECD (1995) survey on the first half of the nineties relied on interviews; tax advisors, government fiscal policy experts and executives of private businesses in transition countries were asked about the role of incentives in investment decisions. According to the responses, the primary consideration in these decisions is the economic and institutional background and characteristics of the potential host countries. The assessment of incentives comes after that. If two locations are ranked the same based on the other considerations, that is, the general condition of the economy and institutions, the availability of infrastructure, incentives may tip the balance between them. Case studies relying on interviews and questionnaire surveys (e.g. Antalóczy, 1997 and Antalóczy, Sass, 2003⁶) reveal that investments project of outstanding magnitude received generous government assistance in Hungary in the early nineties, and these played a decisive role in the decision of the investor to choose Hungary from among the countries of the region. Mah and Tamulaitis (2000, pp.236-237) cite similar cases from Poland, the Czech Republic and Slovakia.

The effectiveness of incentives

It is also important how effective the incentives are from the point of view of the country offering them. Effectiveness can be interpreted in one of two ways:

⁵ For the sake of completeness it should be noted that some of the most recent surveys conclude that tax benefits play no major role. E.g. Wunder (2001) analysed on a panel of 75 firms selected from the Fortune 500 list the most important factors in site selection decisions. According to their findings, the tax factors were decisive for only 4 companies.

⁶ The reason why the companies “confessed” in the questionnaires that incentives mattered was that the survey was conducted in a “historic moment”, when companies felt it was important that they take a stand on the issue of incentives because of the accession negotiations.

firstly, whether they help attract investments in general. As seen above, the answer to this is increasingly affirmative. More generous incentives may redirect investments among countries in similar positions.

For the other interpretation of effectiveness we must examine whether the costs of the incentives are compensated for, or exceeded, by the positive impacts exerted by the investment in the host economy, if any. One of the reasons for the introduction of incentives may be that the foreign investor is unable to internalise some of the externalities mentioned, therefore the private and social rate of return are different from each other. Thus the use of FDI-incentives can be justified along the lines that as long as their costs do not exceed the difference of social and private returns, they are beneficial for the host economy.⁷ In economic literature the analysis of intra-industry and inter-industry spillovers, and of the relationship of FDI and economic growth attempts to find out whether the social benefit exceeds the cost of the incentives. As seen under the analysis of the relationship of FDI and growth, the findings are controversial. The same applies to the examination of spillovers⁸. For instance, looking at the effects of FDI attracted by tax incentives on R&D, Hall and Van Reenen (2000) and Bloom, Griffith, Van Reenen (2000) found a positive correlation. Blomström and Sjöholm (1999) report positive spillovers, Aitken and Harrison (1999) negative ones. Konings (1999) found examples of negative spillovers in the transition countries, at least in the early nineties. According to Blomström, Kokko and Zejan (2000), the characteristics of the host country and of the sector determine the effect of FDI on the economy. All this reveals that positive spillovers, representing the positive effects of FDI, are possible, but they are not automatically manifested. Blomström et. al. conclude from case studies that the materialisation of potential spillovers depends on the ability of local firms to receive them. Their study concluded that forward linkages generally result in positive spillovers, while this is less so in case of backward linkages. Spillovers among industries may be stronger than those within industries.

Government incentives in practice

Which incentives-benefits do government use to attract capital? Those elements of the economic policy may be mentioned here that have the purpose of improving payback of investments (in particular FDI), or reducing their costs and/or risk. Incentives may be fiscal, financial or other. These incentives influence mostly the site selection for new investments (as well capacity expansion); capital flows relating to mergers and acquisitions are hardly affected by the incentive system.

According to the literature, FDI incentives in the narrow sense include fiscal, financial and other incentives. In many cases governments attach various conditions and performance requirements (PR) to the incentives to assure that FDI “delivers”

⁷ It should also be noted that incentives have potential negative effects on the host country as well. The most important such effects include the reduced tax base, the distortion of resource allocation, corruption and the strengthening of rent-seeking. (Zee, Stotsky, Ley, 2002, p. 1498)

⁸ In many cases the analysis of the relationship of FDI and growth on the one hand, and FDI and the spillovers on the other, are lumped together. Even though FDI may have an indirect effect on growth also through spillovers, in this paper we still discuss the literature of the two types of analysis separately.

the expected positive impacts with greater probability, and also to direct investments into strategic sectors, activities or regions for industrial policy considerations.⁹ Such PR's may include: local added value requirement, export requirement, minimum investment requirement, the requirement of domestic participation, employment-related requirements, technology transfer requirement, R&D requirement etc. Multilateral (GATT, WTO) and regional conventions impose considerable restriction of the applicability of PR.¹⁰

Table 1 Key FDI incentives in the narrow sense

Type of incentive	Purpose	Elements
fiscal	to reduce the tax burden on the investor	tax credit, tax relief, tax rebate, exemption from customs duty, reduction of tax base, VAT exemption, accelerated depreciation, reinvestment allowance, loss accrual
financial	to provide direct financial assistance	Soft loans, grants, sovereign guarantee on investment credits, export guarantee, insurance and credit, subsidised funding for various purposes
Other	to increase the profitability/reduce the costs of the investment through non-financial means	preferential government contracts, real estate provided below market price, promotion of institutional investment, SME development programmes, customs free areas, special economic zones, industrial parks

Source: compiled by the author

When examining the motivations of investors we saw that in addition to, and even before, incentives in the narrow sense they consider the quality of the investment environment, the operating conditions and payoff of the investments, the characteristics of the real economy when selecting the site of an investment. From the aspect of the government the various macro-economic policies play a part in the formation of those factors. (Antalóczy, Sass, 2003). They may be described by quantifiable indicators and non-quantifiable criteria. The former category includes for instance GDP per capita, GDP growth, the inflation rate, current account balance and budget balance to GDP, the unemployment rate, as well as indicators of infrastructure availability, the competitiveness of labour, the investment climate and

⁹ PR's are used both in developed and in developing countries (Safarian, 2002). Their efficiency in directing FDI and assuring its positive effects is not clear. Some case studies report instances where PR was used successfully. (Cited by Kumar (2002) and Balasumbranyam (2002))

¹⁰ The WTO conventions on Subsidies and Countervailing Measures (SCMs) and on Trade-Related Investment Measures (TRIMs) prohibit the use of certain PR's while allowing other, non-PR-related incentives. (The local added value requirement, the "trade equalisation" requirement and export control are not allowed. Some of these have been replaced by trade policy measures, e.g. rules on origin.) NAFTA and EU are regional integrations where incentive policies have been aligned to some extent.

the size of the market. The latter category comprises, inter alia, the quality of the banking system, the status of privatisation, its techniques, the characteristics of trade and competition policy, public security, corruption, cultural similarity, and the quality of life – the quality of residence and the environment, cultural facilities, quality of schools (and within that, availability of education in foreign languages), and even the quality of hotels and catering facilities.

From among the macro-economic policies that affect the general investment climate, most important ones are the monetary and fiscal policies. These influence the indicators of economic stability (inflation, external and budget equilibrium), and interest rates, and through that, the cost of capital, investment decisions and the type of investments. (Naturally, this effect is much weaker in case of foreign investors because, unlike Hungarian investors, they have much more financing sources available.) The fiscal policy determines the general taxation level, and within that, the corporate income tax rate. (According to empirical studies, if all other factors influencing FDI are equal in two countries, the one with lower income tax rates attracts more direct investment.¹¹) Within monetary policy, exchange rate policy may be a measure of stability. It affects the relative prices of the securities of the host country, the relative size of the repatriated profit and, in case of export-oriented investments, the competitiveness of the exported products.

As to other economic policy areas: structural policies affect the industry structure, its spatial location, the position of R&D, and the composition of economic actors. The policies regulating the various factor markets, such as labour market policy, have an indirect effect on the attractiveness of the country for foreign investors. Similarly, the policies influencing the quality of labour, primarily education policy but also health policy, may have indirect effects. Privatisation policy may be an important instrument to attract foreign direct investments, as long as the potential buyers are not discriminated based on their nationality when selling state-owned companies, utilities etc., that is, unless domestic buyers are given preferential treatment. Major privatisation transactions or sale of concession rights themselves may determine the sectoral composition of inward FDI in the given year. Furthermore, privatisation contracts may contain provisions which otherwise belong to the jurisdiction of other economic policy elements, such as the employment obligation of the privatised company, the specification of export sales or output levels for a certain period. There may be entry and exit regulation that are applicable only to foreign direct investments. Entry regulations include the ceiling of foreign ownership (100 percent, majority or minority foreign holding) and the list of sectors where foreign direct investment is allowed (or prohibited). Even though exit regulations were widely used in the sixties and seventies, primarily in developing countries, they are now present in very few regulatory systems. Competition policy

¹¹ The importance of general income taxation is underlined by several studies. De Mooij and Ederveen (2001) review, and recalculate with comparable data, the findings of 15 empirical studies. According to the authors, a 1% reduction in the tax rate of the host country increases the inward FDI flow by 3.3%. (Studies using the effective tax rate arrive at an even higher elasticity value). According to Desai, Foley, Hines (2002), the value of FDI originating in the US is 5% lower in countries with 10% higher tax rates, and the tax effect is especially strong in Europe. (Naturally the correlation is changed if the investor is offered different tax allowances in the countries examined.)

may affect the inflow of foreign direct investment through controlling mergers and acquisitions. From another aspect, competition policy and the relevant enforcement authority affect the operating environment of companies with foreign participation through the regulations and decisions affecting the market structure and competition and actions against antitrust violations and restrictive practices. Trade policy determines the market access of exported products, the availability and cost price of imported inputs. The importance of this is different for export-oriented companies and for firms producing for the domestic market, but one aspect or the other is generally important for every investor. Closed markets in themselves may be attractive to FDI, as they induce companies to create production capacities in the country concerned instead of the costly, and sometimes impracticable, exportation.¹²

As we have seen, the positive effects of FDI on the host economy are guaranteed by the fullest possible attainment of the potential spillovers. The spillover effects can be increased by the remaining allowed PRs and the policies improving the absorption capacity of local firms and their ability to learn from the foreign company. These include the ones which improve the possibilities of spillovers substantially *ex ante*, and are also compatible with regional and multilateral conventions, such as assistance to education, training, R&D. Other policies, such as infrastructure development, also promote the attainment of spillovers indirectly.

In summary, empirical studies reveal about the relationship of broader and narrower FDI regulations that capital flow itself is determined by the factors influencing FDI in the broad sense. The size of the market, its growth rate, the production costs, the level of qualifications, political and economic stability, the regulatory framework and the economic policies indirectly affecting FDI are the most important considerations in attracting investments. The role of incentives is important mostly when making a choice between areas similar in the aforesaid respects. That is, specific incentives may direct investments regionally, between two similar countries, or within a single country.

3. Hungary's performance –international comparison. Do investment incentives play a role?

In case of Hungary, the absence of reinvested profit data renders comparison difficult. (Poland has been publishing “full” FDI data since 1994, Slovakia since 1996, the Czech Republic since 1998, and because of the questionnaire stock taking method it is probable that the stock figures are realistic in case of these countries.) The effects of the absence of reinvested profits are aggravated by the fact that Hungary is in a later stage of capital attraction than its competitors. Thus in case of Hungary privatisation related inflow has been modest since the late nineties, while in the competing countries of the region as much as half of the total inflow in a year may come from such FDI¹³. (E.g. last year in the Czech Republic approximately half of the

¹² tariff-jumping FDI.

¹³ In official statistics only that part of the FDI is recorded as being related to privatisation which is collected by the designated state privatisation agency or organisation, and not the investment going to

annual inflow consisted in FDI relating to the Transgas privatisation). At the same time, in all probability reinvested profit, which is not included in the statistics, is one of the most important components of the annual inflow in Hungary.

Despite these two problems, the data in Table 2 reveal that Hungary has been increasingly lagging behind in the regional competition for FDI since 1999. In 2002 even Slovakia, the poorest performer of the region in this respect, “overtook” Hungary – mostly as a result of a few privatisation transactions. The figures of the first months of 2003 indicate the strengthening of this trend: the close to 200 million USD negative Hungarian figure contrasts with the continued growth in the other countries examined.

Table 2 Inward foreign direct investment, USD million

	1996	1997	1998	1999	2000	2001	2002
Czech Republic	2,035	2,136	3,700	6,313	4,583	4,916	8,000**
Poland	4,498	4,908	6,365	7,270	9,342	8,000	6,000
Hungary	2,275	2,173	2,037	1,944	1,643	2,688	855
Hungary*	3,364	3,737	3,777	3,846	3,692	(4,443)	(2,000)
Slovakia	351	174	562	354	2,052	1,475	3,500

* Figure adjusted based on the National Accounts: for 2001, we assumed reinvestment volume similar to that in 2000, while for 2002, due to the increase in profit repatriation, an amount of USD 1000 million, comparable to the lowest value in the time series. ** Estimate. Source: WIIW/WIFO database, and: Czech Republic 2002: Czech National Bank; Hungary 2002: NBH euro data converted into USD, Ireland: IMF

According to the per capita stock data of end-2002, Hungary is still the leading “investment target” in the region, while the continuation of the trends revealed in Table 2 may soon result in the loss of that position. Kalotay (2003) warns of similar tendencies after examining the trend of Hungarian participation in the total FDI inflow into the region.

Table 3 Stock of foreign direct investment, USD million

	FDI stock (2001)	Adjustments (1996-2002)	2002 inflow (estimate)	Adjusted stock	Adjusted stock/capita (USD)
Czech Republic	26,764	-	8,000	34,764	3408.0
Poland	39,000*	-	6,000	45,000	1163.4
Hungary	23,562	+11,270**	855	35,687	3533.3
Slovakia	6,000*	-	3,500	9,500	1756.0

the privatised company as capital increase, for instance. Consequently the share of privatisation related FDI may be higher than the official figures indicate in each country.

*estimate. ** for 2001, we assumed reinvestment volume similar to that in 2000, while for 2002, due to the increase in profit repatriation, an amount of USD 1000 million, comparable to the lowest value in the time series. Source: see Table 2

Is the structure of Hungarian investments different in regional comparison? As to the structure of investments, similar to the other countries, the most important investors are EU Member States (and within that, Germany) with over 80%. (In this respect Poland is an exception, where the EU share is only around 70% because of the US investments and the smaller German presence). Smaller investments may also be motivated by geographical proximity (For instance, the large share of Austrian investments with the exception of Poland, or Swedish investments in Poland). Unlike in Hungary, in the other countries the mix of investors and sectors was less stable even in the early 2000's: a large, generally privatisation related investment might raise the share of a country (Poland: France; Czech Republic: Netherlands), or of a sector (e.g. telecommunications in each country). This indicates the heavier concentration of investments in the other three countries.

The share of the manufacturing varies, representing less than half of the total stock in each country at present. This is also affected considerably by the progress of privatisation and the policy relating to greenfield investments, and also the price achieved in the privatisation sale of firms in various sectors. For instance, the share of financial services is larger in the other three countries because of the large bank privatisation transactions occurring later than in Hungary. The same holds true for the telecommunications sector. In the Czech Republic, the high-value privatisations in the service sector have pushed the share of the manufacturing industries below 30%.

Within manufacturing, outward-processing-intensive light industry sectors (textile, leather) have attracted minimal foreign investment in the period under review, that is, foreign firms prefer to exploit the labour which is much cheaper than in their home countries under contract manufacturing arrangements. In case of Hungary, the share of *coke, petroleum processing, chemical industry* is outstandingly high - primarily due to the privatisation of MOL. (Similar changes are to be expected in the Czech Republic because of the Transgas privatisation.) Because of the inherited industrial structure, the production of non-metal mineral products is relatively high in the Czech Republic and Poland, and metalworking in the Czech Republic and Slovakia. The motor vehicle industry, and in particular the motorcar industry, is one of the main targets of foreign investors in the region, this sector having a large share in each country. This is attributable to the low labour cost in case of export-oriented production, or (mostly in Poland) by access to a protected market. The role of the latter consideration has been diminished in line with liberalisation towards the EU. In contrast, the share of investments in the electronics sector was outstandingly high in Hungary within the FDI stock of 2000. (This is not likely to be changed substantially by the exit of IBM either.)

The structure of the Hungarian FDI stock is probably somewhat different from that in the other countries of the region in two other respects as well. According to our own estimates (Antalóczy, Sass, 2003b), the share of greenfield projects in the

whole stock is the highest in Poland and Hungary (between 1/3 and 1/4 in case of Hungary, and somewhat higher in Poland). The share of export oriented projects (ibid.) may be the highest in Hungary at around 15-20%, the ratio being below 15% in the other countries of the region.

What are the factors behind the relative positions of the various countries in attracting capital into the region? Do incentives play a part in the FDI inflow?

In 1989 Hungary was the first country to open up its economy to foreign direct investment. Being the first in the region in this respect certainly gave the advantage of early start, especially as many large foreign firms were poised to enter the region.¹⁴ From the early nineties Hungary and Poland offered considerable incentives to foreign investors in the region. However, in case of Poland (due to the deeper recession and the debt problems), the negative investment environment could for a long time not be offset by the incentives, despite the much larger domestic market, while Hungary was also the first to involve foreigners in privatisation (Kalotay, Hunya 2000). After a brief period in the early nineties, the Czech Republic and Slovakia did not offer any incentives, and the peculiar technique of privatisation practically excluded foreigners from the privatisation process. In these two countries the opening of the market to foreign investors was not clear, just as there were restrictive periods in Poland as well. In Hungary a special regulation also played a significant role in attracting capital: that of industrial custom free zones, which had a major role in attracting export oriented greenfield projects mostly from the mid-nineties. (Antalóczy, Sass 2000)¹⁵

Even though these countries chose different roads, by the mid-to-late eighties each country had gone through the most difficult stage of transition, and they became increasingly similar in terms of their characteristics. This is especially true for Hungary and the Czech Republic in respect of market size, geographical location, human capital and infrastructure facilities. After the clear opening towards FDI, at this stage the emphasis was shifted to indicators of the investment environment. In the late nineties both the Czech Republic (1998) and Slovakia (2000) introduced considerable incentives. It is difficult to assess the generosity of a system of incentives. On the one hand, there have been relatively numerous changes and alterations in the incentive mix. On the other hand, the package consists of several different incentives in each country. According to Antalóczy, Sass (2003b), companies concerned think that tax allowances¹⁶ and the regulation of industrial customs free zones were the most important incentives in Hungary. Therefore we shall try to compare incentive systems of the region focusing on these two incentives.

¹⁴ As one important consequence of the early start, the presence of renowned investors and the high FDI stock in themselves acted as attractions for investors.

¹⁵ It can be hardly assumed that the FDI policies of Hungary (and the other countries reviewed) would have been part of a conscious economic development strategy. Instead, they were influenced or determined by short term economic pressures (such as the size of the debt in case of Hungary) or political decisions.

¹⁶ According to Smart Hungary, the key element of the Hungarian incentive system after the second half of the nineties was the tax allowance for large investments: close to four fifths of the support to the processing industry reached the companies through this instrument. (www.gkm.hu/site/fomenu/gazdasag/smart_hungary_021016.html)

The generosity of tax incentives can be compared based on the minimum investment size and the general tax rate.

Table 4 Minimum investment sizes in the Visegrád countries (2002)

	Czech Republic	Poland	Hungary	Slovakia
Corporate income tax rate (2002)	31%	26%	18%	25%
Minimum investment size	approx. EUR 10 million (or approx. EUR 5 million in less developed regions)	EUR 100 thousand (in case of investments before 2001, EUR 2 million)	approx. EUR 20 million (or approx. EUR 12 million in less developed regions)	from EUR 1.5 million to EUR 5 million (depending on the sector, activity and the unemployment rate in the host region)

In terms of minimum investment size, in 2001 the Hungarian rules were the tightest, while the corporate income tax rate was the lowest. That is, the relative value of tax exemption is the lowest here, and eligibility is the most difficult to obtain. On the other hand, Hungary has the lowest income tax rate, which is an important element in the general investment environment. In Poland, on the other hand, practically every foreign investment is eligible for benefit. (Since 2001, however, only investors in the 15 special economic zones have been eligible.)

The regulation of Hungarian industrial custom free zones has been really beneficial mostly for export-oriented, assembling companies. The other countries covered in the study have no similar regulations. The Polish special economic zones are in the custom territory. The establishment and development of Czech and Slovak industrial parks started only after 2000, but their role has been rather limited. Even though custom free zones exist in the other countries as well, they are trade-related and operated based on the classic custom free zone principles. (Antalóczy, Sass, 2000).

Even though there are no calculations available for any of the countries about the role of the various factors (including incentives) in attracting capital, it appears likely from the empirical literature that in the late nineties – early in this century the countries of the region have become increasingly similar for investment purposes. This is especially true for Hungary and the Czech Republic, which are very similar in terms of market size, infrastructure facilities and economic performance. Because of the relative saturation of Hungary (the saturation of the most popular target regions), its fallback in the regional incentive race, the absence of adequately qualified labour, then in 2002-03 the worsening economic indicators resulting from the economic policy of the government, some large and important projects were implemented in the Czech Republic or Slovakia. As another major factor in Hungary's fallback, in the other three countries large privatisation transactions were left for the late nineties or the beginning of this decade.

Investment incentives in the Czech Republic

In the Czech Republic an incentive package with considerable benefits was introduced in May 1998. The institutional background of investment promotion was also created: Czechinvest has been granted considerable independence and operates as a kind of one-stop-shop. The agency arranges and efficiently implements practically all the tasks relating to the investment, often pro-actively approaching investors, and their experiences appear to be utilised when rules are amended. Czech benefits are similar to those in Hungary (similar size and eligibility criteria). There are four important differences: the incentives accepted by the EU were taken into consideration already in 1998, and later the Czech system was further approximated to the EU requirements (e.g. education and training, public assistance to environmental projects). Secondly, the investment threshold for eligibility for tax and other incentives was much lower than in Hungary.¹⁷ Thirdly, even though they attempted to establish a system of industrial parks, they did not introduce regulations similar to those governing Hungarian industrial custom free zones. Fourthly, in the Czech Republic the incentives granted by local governments are more effectively co-ordinated with central incentives. There is another recent and important difference: Czechinvest has had a major role in the introduction of two new incentive schemes in June 2002: the framework programmes to promote strategic services and the foundation and expansion of technology centres. (Under these programmes, the government covers part of the labour or capital costs (not more than half), and 60 and 35% of the costs of training and retraining, respectively – also with an eye to EU compatibility.)

Competitiveness and FDI: findings of the empirical literature

Relatively few studies have looked at the relationship of growth and FDI in the transition countries, or the presence of FDI spillovers. Table 5 below summarises the findings of some recent studies, in particular those that look at the role of FDI in regional comparison.

Table 5 Examination of the effects of FDI on the host economy in the empirical literature

Author, year	Subject, purpose of study	Method	Key findings
Éltető (1999)	FDI and foreign trade	Sectoral and aggregate country data 1994-1996	Established probability that the role of firms with foreign participation is decisive in the development of foreign trade in the four small transition economies
Kinoshita (2000)	Presence of R&D and technological spillovers in the Czech Republic	Corporate level data 1995-1998	In the Czech Republic: indirect R&D effect through the growth of absorption capacity on productivity, the technological spillover varies significantly by sector, being sizable in the

¹⁷ According to the figures of Czechinvest, 41 firms were granted tax exemption or tax allowances to their investments between January 2000 and July 2001; in the Hungarian system, only seven of these would have been eligible.

			electronic industry and radio/TV manufacturing; no technological spillover found in joint ventures
Knell (2000)	Presence of FDI related externalities	Corporate data	No externalities improving the efficiency of domestic firms in the transition countries
Landesmann, Stehrer (2000)	Foreign trade competitiveness and FDI	Foreign trade data	The competitiveness of the processing industry improved the most in the transition countries with the greatest role of firms with foreign participation
Bosco (2001)	FDI, technological spillovers and growth	Corporate data 1993-1997	The strongest FDI related impact is on competition, no spillover; the performance of foreign owned companies exceeding that of domestic firms in Hungary
Damijan et al. (2001)	FDI related spillover effects	Corporate panel data	No definitive sign of spillovers in eight transition countries
Hamar (2001)	Performance of domestic and foreign-owned companies	Corporate data	Duality in the Hungarian economy: different performance of, and minimal links between, firms with Hungarian and foreign owners
Hamar, Nagy (2001)	Relationship of the product structure of export and ownership categories (inter alia)	Corporate data 1996-1999	The overwhelming majority of Hungary's export growth is attributable to foreign owned firms, the export growth of the machine industry being the highest
Havlik et al. (2001)	FDI and export	Corporate data	Relationship between the competitiveness of the processing industry and FDI, FDI is responsible for the increase of technology intensive exports in some transition countries
Pitti (2001)	Performance of companies with domestic and foreign ownership	Corporate data	The performance of foreign owned companies is better, but the alignment of domestic firms started in Hungary
UN ECE (2001)	Export and FDI	Country data 1993-1999	The correlation of export growth and cumulative FDI inflow over GDP at PPP is significant and positive in transition countries, especially in the most developed ones
Vince (2001)	Corporate linkages	Corporate interviews	In Hungary corporate linkages are strongly related to their ownership structure, there are two sub-groups within the group of foreign owned firms, with significantly different links to the domestic economy
Campos, Kinoshita (2002)	FDI and growth	Aggregate country data	The impact of FDI is positive and significant on growth in transition countries
Hunya (2002)	FDI and growth	Aggregate country data, 1995-2001	In accession countries the restructuring of the processing industry is heavily dependent on FDI inflows, advantage of foreign owned firms

			over domestic peers in terms of productivity, export, investments and profitability, duality in the various economies. Technology transfer exists spillovers do not.
Novák (2002)	Efficiency increase and foreign ownership	Corporate data	In Hungary the foreign owned firms are more efficient, but the difference is diminishing

Consequently, there is no consensus in the empirical literature concerning the impacts of FDI on the host economy. Several studies agree on the relationship of FDI and economic growth, and FDI and changes in the foreign trade structure. On the other hand, findings are controversial in respect of the presence of technology transfer and spillovers. In this field one of the studies considers the competitive effect to be the most important. In respect of linkages with the host economy, the literature discusses their changes over time and their strong correlation with the type of investment. A number of authors point to the emergence of a kind of duality in the Hungarian economy, where foreign owned firms perform better than their Hungarian peers, while the most recent studies report the diminishing of that duality. The tenets of general theory and empiricism are confirmed by the conclusions applicable to transition countries, among them Hungary: FDI does not automatically improve competitiveness and increase GDP, and technology transfer and spillovers do not happen automatically either. Generally there are few links with the firms of the host economy (though they become more numerous over time).

4. The future –Possibilities for economic policy

Foreign direct investment may improve the performance of the host economy in several ways. However, these beneficial effects do not manifest themselves automatically. Until the mid-nineties Hungary played a leading role in the region in attracting capital. After 1999, however, it started accumulating disadvantages compared to its key competitors. On the other hand, according to stock data adjusted for reinvested profits, the arrearage is not that substantial, but the post-1999 figures indicate a gradual deterioration. The past two years saw several companies exit, while we were defeated by the Czech Republic or Slovakia in the competition for some major investment projects. The global drop in FDI appears to affect only Hungary within the region to any significant extent, while inward FDI has not declined in the other Visegrád countries.

The positive economic impacts of the investments already here have also fallen short of expectations. In effect, the competition generated by foreign-owned firms had a major effect on the economic processes of Hungary, and foreign-owned firms also played a significant part in the restructuring of the economy. However, foreign-owned firms have established few linkages with domestic companies, even though the numbers have been growing over time.

What can we do to assure that inflow of direct investment resumes the level before the setback, and that existing investments exert greater positive impacts on the host economy?

Changes are difficult to make in the short term¹⁸, but one or two major investment projects would certainly have significant “demonstrative” effects and positive publicity. Keeping an eye on EU accession next year, we may utilise the maximum aid intensity and other possible benefits. We could rely on the labour force left behind by the firms that exited and the existing infrastructure at their sites when “enticing” one or two larger projects. The incorporation of reinvested profits into the FDI figures would also be conducive to restoring our reputation; this would make it clear even for persons not familiar with methodological issues that the decline in inward investment is not that substantial.¹⁹ (Cf. methodological note at the end of the first chapter)

1. In the longer term the most important means of attracting investment is to improve the general investment environment. This should certainly be defined as part of a consistent, long term economic development strategy, which gives a major role/priority to attracting capital and the more efficient utilisation of the positive effects of existing investments. In this respect co-ordination between the various elements of economic policy is important, so that other economic policy elements do not work against the objectives of investment promotion. As we have seen, the position of the economy and the quality of the general investment environment are decisive from the aspect of attracting capital. We have room for improvement in this area as well (even compared to our key competitors). The “sorting out” of certain economic policy areas may yield positive results,²⁰ but it would be more efficient to design the various policies based on a long term, consistent concept. The positive impacts of the measures take time to emerge; immediate results should not be expected.

2. In order to improve our ability to attract capital, it would be important to improve the general investment environment on the regulatory side by eliminating macro-economic imbalances, increasing the predictability of economic policy and developing the intermediating financial sector.

From among the elements of the economic environment that promote the payoff of investments, improvement of the following elements is the most important. Firstly, the infrastructure with appropriate structure (physical, technological, transport-forwarding, telecommunication, information technologies) plays a major

¹⁸ As one important reason, 2-3 years may elapse between a corporate decision and the implementation of a project.

¹⁹ In this respect it may be expedient to use the Polish “method”.

²⁰ Even though, according to the literature, exchange rate fluctuations do not have significant effects on foreign direct investments, empirical data indicate the contrary. According to Feenstra (1998), experience shows that M+A-related FDI is sensitive to interest rate changes. He quotes Froot and Stein (1991), who claim on the basis of the US example that exchange rate changes affect new investments as well (i.e., the strengthening of the currency results in the decrease of equity-type inflows). According to Blonigen (1997), as in case of foreign direct investment the currency of investment and the currency of the profit or transfer revenue is different for the parent company, the exchange rate of the two currencies concerned certainly affect the investment decision. In Hungary, investment is becoming more expensive; furthermore, the revaluation reinforces the impacts of the wage increase (detrimental for resource oriented investors). For Hungary, the regional developments in this area are especially important. And yet another aspect in the context of recent events: haphazard, inconsistent exchange rate (and economic) policy deters investors.

role, and so does education (education, training, vocational training, labour force in an appropriate qualification structure). The current structure should be approximated to a structure of qualifications appropriate for the present level of development of the economy: for the attraction of investments, one of the key problems is the absence of labour force with medium-level qualifications, and the departure of the training structure of higher education from the desired structure.

The significance of these two areas of education-training and infrastructure is heightened by the fact that they would promote not only new investments but also the reinvestment of profits; furthermore, they reinforce each other's impacts, and promote not only the attraction of capital but also the integration of capital into the host economy, and aid to these areas is not against the EU rules; indeed, EU co-financing is also available for these fields. (In the EU the manoeuvring room of economic policy in respect of aid will be more restricted than before the accession but it will stay relatively broad: certain preferences of Member States can be reflected. For instance, in a number of EU Member States there are one or two priority areas where investments receive benefits: for instance, certain high technology sectors in Austria and Belgium.)

3. In respect of investment promotion in the narrow sense, EU membership will significantly change its system of conditions (and that of economic policy in general). For investment incentives in Hungary it is an important change that the emphasis may be shifted to financial incentives²¹ and the role of fiscal incentives may be diminished. Other incentives, such as infrastructure development, may increase in value. Membership will also have a very important positive yield: because of EU regulations, the differences in investment incentives will be smaller between Hungary its major competitors and the regional incentive competition will be stopped. (On the other hand, an important Hungarian instrument in attracting capital will be lost: the customs free zone regulation.)

Under EU rules, significant assistance can be provided to the least developed areas. At present the whole of Hungary is considered less developed for purposes of regional policy. Improving the capacity of potential investment sites to attract capital (by infrastructure, training) is an important task, and EU funding is available for this. The entire system of incentives must be made EU compatible, and all the possible forms of assistance reflecting Hungarian preferences must be made available to firms. (Table 9 discloses the available forms of aid in a simplified format.) Forms of assistance are diverse. From the viewpoint of the EU it is compliance with the aid ceilings that is important.

Considerable changes are called for in the institution system of investment promotion. The experience of successful countries indicates that it is more appropriate to establish a single, more independent, proactive institution that concentrates only on investment promotion and has decision making powers. That institution must have a co-ordination function in respect of the granting of benefits

²¹ This is not inevitable, though, as, according to the EU competition policy report, in some Member States fiscal instruments (tax exemption, tax allowance) were the most important forms of state aid in the late nineties (in Greece, France).

(today in Hungary too many institutions and organisations can award such benefits). The investment promotion entity must maintain continuous contact with the government, and its feedback must be utilised in the formulation and management of incentives. It is important that the organisation proactively approaches potential investors instead of working only with investors who come to Hungary. The activities of Czechinvest after 1998 (and its homepage!) offer an example in the region. The reform of the system and making it public and available to foreigners as soon as possible is also important to reduce uncertainties.

4. The limitation of the regional incentive competition will be beneficial as investment promotion is a double-edged knife. It has a role in channelling investments at the regional level, and it may have some short term effects, but it may also have significant negative impacts. It can be used efficiently mainly where market failures need to be corrected. Though this is the case in a number of instances, the design of the intervention and the “correction” of market failure are difficult tasks, which do not always yield success. In this respect a normative regulation may be more appropriate.

In the field of investment promotion in the narrow sense it may be a serious dilemma whether, following in the wake of other Member States, Hungary should opt for targeted investment incentives, giving priority to one or two sectors based on the Irish experiences to exploit synergies and agglomeration effects, or to take the route chosen by the Czech Republic and introduce targeted benefits in the service sector, or perhaps to rely on the Asian experiences and continue preferring export oriented investments. It is difficult to identify winning sectors, and even more difficult to create an environment favourable to them, beyond the benefits: e.g. adequately skilled labour, infrastructure. All this presupposes efficient and co-ordinated action on behalf of the central government (and local governments). In case of targeted, so-called third generation investment incentives (Kalotay, 2003), the beneficiaries of incentive measures are not selected by the state; instead, they are chosen based on objective, publicly declared criteria. Programmes containing targeted incentives are designed for a definite period of time. Targeting may mean the priority treatment of certain sectors as well as preference for certain corporate functions, activities, firms focusing on certain geographical areas or incumbent investors. That is, instead of case-by-case bargains, this is a transparent, normative system of incentives. On the other hand, to assure appropriate and workable targeting, it is important to assess the availability of resources in the country and the position of infrastructure to support investments.

The composition of the FDI stock would appear to suggest priority treatment to the electronics industry. The sector, however, wrestles with severe problems, with significant capacity reductions all over the world, and investors clearly preferring Asia (in particular China). Hungary has also been affected by the capacity reduction drive, and even though this sector potentially has significant agglomeration, R&D and spillover effects and potential for attracting additional capital, the promotion of investments into the electronics sector does not appear to be a good choice in the present situation. (Economic recovery may create a new situation). Hungarian capacities in the motor industry are not sizeable in regional comparison, even though

in terms of local added value we are ahead of Poland and Slovakia. The established production phases in the motor industry are mostly labour intensive, with little scope for advancement, and the industry is also declining (also burdened with national economic policy priorities and the strict incentive regulations to be introduced in the EU in the near future). It may be a problem in both sectors that most investments rely intensively on cheap, unskilled labour, and the advantage of Hungary in this area has largely disappeared. From among traditional sectors, the pharmaceutical industry could be considered, but due to the intensifying global concentration of the industry and the importance of capital-intensive R&D activities it appears to be an improper choice. Following the Czech example, the priority treatment of certain services (e.g. information technology, corporate services, corporate service centres to be relocated in Hungary) could also be an option. This is less capital intensive, requires higher qualifications, and the incumbent similar projects may offer a positive example.

In case of targeted investment incentives, their advantages and disadvantages should be compared. As the most important advantage, targeted investment incentives allow us to concentrate the available resources on priority sectors. Furthermore, in this manner the government's economic policy may play an active part in the formulation of the comparative advantages of the economy, "channelling" them in the desirable direction. Thirdly, synergies and agglomeration effects may be amplified in the selected sectors. However, the advantages are overshadowed by the disadvantages of targeted investment incentives in the present Hungarian situation. Firstly, there is considerable danger of rent-seeking and abuses. Secondly, the identification of priority sectors is difficult, as illustrated above. Thirdly: the cyclical sensitivity of the priority sectors may boost costs considerably in the short term. Fourthly, the range of effective targeted instruments that can be applied is significantly limited by our international commitments (WTO, EU). Fifthly, the entire economic policy must be readjusted, the other economic policy elements must also promote the priority sectors, and economic strategy must also accord them priority. Sixthly, it should be noted that even though there are some international examples for successful targeted sectoral incentives, there are much more cases where targeted incentives did not yield the desired results. On the whole, a normative system can be more beneficial in the present economic situation. On the other hand, the priority treatment of information technology should be considered, as it has additional benefits to the above in the form of enhanced synergies and agglomeration effects (affecting almost all the sectors); furthermore, the priority treatment of the sector may be justified under the premise that its underdevelopment may result in a permanent fallback.

Could it be useful to provide different incentives to the various types of investment? The Hungarian system introduced in the second half of the nineties favoured assembly-type, outward-processing or contract manufacturing-like, export oriented, greenfield investments. In the case of those projects, our competitive advantage has been considerably eroded; furthermore, this type of investment has one of the most limited impacts on the host economy. As privatisation targets peter out, there is minimal scope for promoting acquisition-type FDI. On the whole: there is no point in giving preference to any kind of investment type, normative being the

recommended solution in this case also. On the other hand, due to the significant stock already in Hungary, the promotion of the reinvestment of profits can be a priority area.

5. According to the most recent theoretical and empirical literature, the general tax rate is one of the key factors for investment (by domestic or foreign investors alike). Even though it may prompt severe resentment in the EU and its impact on tax revenues is questionable, the treatment of the corporate income tax rate as an instrument to attract capital (and investments in general) may be worth considering (see the Irish example). Especially if our lag in the regional investment attraction race appears to grow, and Hungary receives a smaller-than-desired share of the investment reallocation triggered by the integration. In respect of the current corporate income tax rate, Hungary is in a favourable position as compared to the accession countries of Central Eastern Europe and the EU Member States alike. There may be a slight move towards an even lower tax rate, but the manoeuvring room is rather limited. It is constrained by the EU and OECD rules ("tax havens"). However, a 12-15 percent normative corporate income tax rate could have a demonstrative effect, and it may also induce firms to record as well as invest some of their profits in Hungary. The corporate income tax reduction would have the additional benefit of being normative, transparent, advantageous also for domestic (small and medium sized) enterprises, represents a smaller drain on budget revenues than the reduction of other taxes, and, according to empirical studies, the profit tax plays an ever increasing role in site selection decisions.

However, the most important factor in the reduction of the general tax burden is not the profit tax but the other taxes and contributions. These include primarily social security contributions, personal income tax, the value added tax and local taxes. These are rather high in regional and EU comparison, while their reduction could have a more sizable impact on budget revenues. In case of local taxes, their reduction would require the reconsideration of the financing of local governments.

The potentially selective acceleration of depreciation may also be useful in case of certain strategic activities, capital goods, information technology equipment etc. In this respect fairly significant changes were introduced already in 2003.

6. As regards the (positive) impacts on the host economy and the potential tools of improving integration into the host economy: the trends of spillovers and technology transfer etc. are very difficult to influence with economic policy tools. The few international success stories should not overshadow the fact that in many countries the various PR's yielded no or negligible results. This area is also a part of investment promotion, and in this sense it must be subordinated to the same institution. The integration of the incumbent investments into the economy should be considered at least as important as the attraction of new investments. In this respect the government policy could focus on Hungarian subsidiaries of smaller multinational firms (Vince, 2001), which are potentially easier to integrate into the host economy - and therefore have more substantial spillover effects - than the domestic subsidiaries of large multinationals. From among the types of state aid endorsed by the EU, the incentives to SME's and to R&D activities should be designed so as to promote the stronger integration of foreign-owned enterprises into

the host economy. In addition to the key instruments used in the supplier programmes (information provision, identification of potential suppliers, operation of a databank, establishment of supplier associations, organisation of meetings for suppliers etc.), it may be worth concentrating resources to strategic sectors in this case, because investors coming to Hungary perform selection in advance. For foreign-owned firms working in the export-driven sectors with the highest FDI stock, a group of efficient (small and medium sized) suppliers could be established through normative, performance-linked state aids. In this case, subsidised loans for capacity building may be justified.

Investment incentives in Ireland

In case of Ireland, the treatment of investment attraction as a priority was based on a national consensus in the eighties. (An external factor should be highlighted in this context: the role of competition with the United Kingdom, which practically surrounds Ireland.) In addition to other factors (relatively cheap and, as a result of the well-planned and EU-supported education reform of the seventies, relatively highly qualified and English-speaking workforce, purposeful development of infrastructure with EU assistance, efficient and independent state economic development institution (IDA)), the Irish industrial policy played an important role in attracting capital. The targeting of industrial policy was a key element of success (priority sectors: electronic and pharmaceutical industries, and the significant resulting agglomeration effects). Also contributing to the success, Irish economic policy-makers were, one way or the other, able to fray out one-off allowances/discretionary powers from Brussels almost continuously, and to apply for EU assistance with great efficiency. Also importantly, they were also able to improve linkages between the newly established firms and the host economy, partly due to the aforementioned agglomeration effects (primarily through the provision of services, less by increasing the share of locally produced parts or components²²). Furthermore, the Irish economy was also successful in its timing: the positive, investment-attracting effects of the establishment of the single internal market, the introduction of the common currency and the economic and monetary union were manifested most fully in this country. From the eighties, the macro-economic policies resulting in equilibrium also played an important role in making the investment environment more attractive. It should be noted, however, that the Irish industrial policy has considered the (permanently) low corporate income tax rate (12%) to be one of the key instruments in attracting investments (the maintenance of that low level has been condoned by the Commission (Brown, Raines, 2002)).

²² Even though they performed better than average in this respect as well: e.g. in the electronic industry the ratio of local contribution is over 20%. (Ruane, Görg, 2000).

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Annex

Table 6 Breakdown by investor country (% of total investment)

	Czech Republic	Poland	Hungary	Slovakia
Germany	25.5	13.4	25.8	23.0
Netherlands	30.1	8.6	22.5	20.9
Austria	11.1	1.5	12.2	17.6
US	6.5	14.7	8.2	6.0
Belgium	4.8	n/a	3.9	2.3
France	4.3	19.2	6.5	1.8
Switzerland	4.0	n/a	2.1	n/a
Italy	n/a	6.6	2.7	10.7
Japan	n/a	n/a	2.1	n/a
UK	3.5	5.0	1.1	3.9
Sweden	1.4	4.3	n/a	n/a
Czech Republic	-	n/a	n/a	5.0
Hungary	n/a	n/a	-	3.8
South Korea	n/a	3.0	n/a	n/a
Russia	n/a	2.4	n/a	n/a
Total	92.4	78.7+4.6*	89.8	95
Other	7.6	16.7	10.2	5
Of total, EU	87.7	68.2	80.2	81.3

Source: WIFO/WIIW. Czech Republic, Hungary: December 2000; Poland, Slovakia: December 2001; Czech Republic: all three FDI components; Hungary: ownership share; Poland: all three FDI components and projects in excess of USD 1 million; Slovakia: net of loans from owners; no data available about participations below 1%; *in case of Poland, investments in the “international” category represent 4.6%, constituting mostly international organisations (EBRD).

Table 7 Sectoral breakdown of the FDI stock (%)

	Czech Republic	Poland	Hungary	Slovakia	
Agriculture, fisheries	0.4		0.1	1.1	0.3
Mining	0.5		0.2	0.4	0.7
Manufacturing	29.2		41.2	36.8	43.8
Electricity, gas, water	5.3		2.8	9.4	0.2
Construction	0.5		5.2	1.2	0.8
Trade	11.9		11.4	12.4	10.5
Catering	0.8		1.2	1.8	0.7
Transp., telecomm.	17.2		10.7	7.7	13.9
Financial services	27.5		23.1	11.3	25.9
Real estate services	6.4		1.2	15.7	3.0
Public utilities	n/a		n/a	n/a	n/a
Education	n/a		n/a	0.0	n/a
Health care	n/a		n/a	0.1	0.0
Other services	0.4		3.1	1.9	0.3
Total	100.0		100.0	100.0	100.0

Source: WIFO/WIIW. Czech Republic, Hungary, Slovenia: December 2000; Estonia, Poland, Slovakia: December 2001; Czech Republic, Estonia, Slovenia: all three FDI components; Hungary: Ownership share; Poland: all three FDI components and projects in excess of USD 1 million; Slovakia: net of loans from owners.

Table 8 Distribution of manufacturing investments (%)

	Czech Republic	Poland	Hungary	Slovakia
Food, beverages, tobacco	12.5	22.5	14.1	27.8
Textile, textile goods	3.5	1.1	2.0	n/a
Leather goods, footwear	0.0	0.1	0.5	n/a
Wood processing	n/a	6.6	1.0	n/a
Paper ind., publishing, printing	8.1	7.2	3.3	n/a
Coking, crude oil proc, chemical ind.		6.7	27.7	14.4*
Rubber and plastic	17.1	2.7	3.3	n/a
Other non-metal mineral products	15.4	13.9	4.6	n/a
Metal processing	9.5	2.3	3.6	21.6
Machinery and equipment	8.6	1.9	3.7	n/a
Electrical machinery and instruments	6.5	7.1	15.8	16.2
Motor vehicles	17.1	23.7	19.9	16.2
Other manufacturing	1.6	2.0	0.5	n/a
Total	100.0	100.0	100.0	100.0

Source: Czech National Bank, Polish National Bank, CSO, Hosková (2001); Czech Republic, Hungary: December 2000, Poland: June 2002, Slovakia: 2000 (share of the four key sectors); * Only chemical production

Table 9 Possible forms and rates of state aid in the EU

Aid	Scope of application	Maximum aid intensity
Regional	<p>sectors: 1. exceptions: agriculture, fisheries, coal mining. 2. special rules: transport, steel, shipbuilding, synthetic fibres, motor vehicles, large investment projects (the total aid is at least EUR 50 million or the total project cost is at least EUR 50 million and the aid intensity is at least 50% of the regional aid ceiling and aid per job created or safeguarded is at least EUR 40 000)</p> <p>regions: 1. GDP per capita is below 75% of the EU average, or high unemployment rate; 2. regions deemed problematic based on the indicators proposed by the national governments.</p>	<p>I. large investments:</p> <p>1. where GDP per capital is below 75% of the EU average:</p> <p>1.1. where GDP per capital is below 60% of the EU average: 50-65%</p> <p>1.2. higher than 60%: 40-50%</p> <p>2. problem regions as defined by national governments:</p> <p>2.1. standard: 20-30%</p> <p>2.2. prospering: 10-20%</p> <p>II. SME's:</p> <p>the above + 15% (1.1. and 1.2.), or the above + 10% (2.1. and 2.2.)</p>
Aid to small and medium sized enterprises (SME's)	<p>small enterprise: fewer than 50 employees, annual turnover not exceeding EUR 7 million or annual balance sheet total not exceeding EUR 5 million, conform to the criterion of independence;</p> <p>medium sized enterprise: fewer than 250 employees, annual turnover not exceeding EUR 40 million or annual balance sheet total not exceeding EUR 27 million, conform to the criterion of independence.</p>	<p>investment:</p> <p>standard regions: small enterprises: 15%, medium sized enterprises: 7.5%;</p> <p>regions with per capita GDP below 75% of the EU average: the regional aid ceiling + 15% (but may not exceed 75% net)</p> <p>problem regions identified by national governments: regional aid ceiling + 10% (but may not exceed 30% net)</p> <p>aid for services of outside consultants and participation in fairs: up to 50% in each type of region.</p>
aid to R&D activities	<p>aid to (corporate) research and development (public financing of R&D activities by public non-profit-making higher education or research establishments do not qualify as state aid to be notified)</p>	<p>fundamental research: 100%;</p> <p>industrial R&D: standard: 50%, SME: + 10%, in regions with per capita GDP below 75% of the EU average: +10%, in regions identified by national governments: +5%, in projects related to EU R&D programmes: +15%; for projects involving cross-border co-operation: +10% (max. 75%);</p> <p>- precompetitive development: standard: 25%, + the increases under the above categories, but max. 50%.</p>
Environmental aid	<p>- investment aid to help SME's meet EU environmental standards,</p> <p>- aid for investments in energy saving, renewable sources of energy and CHP (combined production of</p>	<p>Maximum aid intensity:</p> <p>1. outside assisted regions:</p> <p>(a) only to SME's: 15% of the investment necessary to meet mandatory EU standards</p>

and CHP (combined production of electric power and heat)
-aid for the rehabilitation of polluted industrial sites
- aid to the relocation of firms for environmental reasons,
- aid for consultancy services (in accordance with rules applicable to SME's) (in other groups of aid: aid to environmental investments in the steel industry and agriculture, and aid to environmental R&D and training - under the appropriate sectors and activities)

(b) investment to improve on mandatory Community standards and relocation of firms: 30%
(c) investments in energy saving and CHP: 40%
(d) investments in renewable sources of energy: 40%
(e) rehabilitation of polluted industrial sites 100% + 15% of the cost of the work
(b), (c) and (d): for SME's +10%
2. in assisted regions: (a) 15%, (b), (c) and (d) 40%, or the regional aid ceiling + 10%, but max. 100%, (e) rehabilitation of polluted industrial sites: 100% + 15% of the cost of the work, (b), (c) and (d): for SME's + 10%

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