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## Concentration of FDI and regional disparities - The role of regional policy.

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## **Concentration of FDI and regional disparities - The role of regional policy**

### **Abstract**

**Foreign direct investment could be very important external source for economic growth, especially in the less developed countries. Several studies showed strong concentration of FDI in most developed regions of the hosting countries, which lead to increasing regional disparities within these countries. FDI often cause crowd out effects for domestic firms in lagging regions. The article will examines role of regional policy in FDI attraction in order to achieve more regional benefits from FDI. We will analyze most often measures taken by regional policy and its interaction with other policies.**

### **Effects of FDI**

Foreign direct investment could very strongly influence the development of countries and regions within the countries. FDI may be the cheapest means of technology transfer, as the firms in recipient countries normally does not have to finance the acquisition of new technology. Sometimes it is even impossible to buy such a technology and FDI is only possible opportunity to obtain it. From 1980s more and more technology transfers has been not a market transfers, but infra-firm transfers (Kumar 1998). This was specially the case of Central and Eastern Europe countries, whose have needed to restructure their economies after communist regimes. But several studies shows, that the impact of FDI cannot be automatically consider as a positive (UNCTAD 2001, Pavlinek 2004, Crespo 2007, Rama 2008). Discussion between „crowd in“ or crowd out“ effect of FDI is still ongoing (UNCTAD 1999, UNCTAD 2003). Direct local competitors of MNE are often forced out of business as they cannot compete. FDI have more efficient production, many times supported by an advantage of tax holidays and other financial incentives provided by governments (Pavlinek 2004). On the other hand, the two large groups of regions with below average regional income per capita, namely the cohesion regions and the regions in Eastern Europe, have benefited from FDI through productivity spillovers and in itself this had lead to more convergence. (CEC 2004)

We will concentrate on FDI from regional development point of view. From this view, there are two very important issues. First is the FDI tendency to concentrate and second is FDI ability to spill-over. FDI has a strong tendency to concentrate in the most prosperous regions of the hosting country (UNCTAD 2001, Pelegrin 2008). In 2007, more than one third of all FDI in EU went to capital cities of the countries. The higher proportion was in Denmark (66% of the projects went to Copenhagen), Sweden (53%) and Austria (51%). In Central Europe,

Czech Republic, Slovakia and Hungary were all around one third (EY 2007). These concentrations are much higher than concentration of other economic activities. In Slovakia, more than two third of the FDI is concentrated in Bratislavsky kraj (capital region of Slovakia) and the difference in FDI stock between capital region and region with lowest FDI stock was more than 10 times bigger as the difference in GDP of these regions ([www.nbs.sk](http://www.nbs.sk)). Similar situation is in other CEE countries.

One of the reasons is rapid increase of FDI in service sectors. In 2007, for the first time, first three sectors according to the number of new projects were service sectors (EY 2007). Service sector need different location advantages as an industry. It needed highly qualified workforce, usually with language skills and presence (or concentration) of knowledge intensive based services (KIBS). These location advantages are more likely to be found in the larger cities or even metropolitan regions. Another reason could be asymmetry information (Pelegrin 2008). Several studies show agglomeration and demonstration effects of FDI. In study by Pusterla (2007) was statistically significant, that the probability of a region being chosen as a location by foreign firms increases the higher the concentration of firms operating in the same manufacturing sector. However, the impact on the probability that a foreign firm chooses a particular region as a location for its production plants is almost twofold in the case of foreign firms. This result is consistent with many other previous studies, thus confirming that foreign firms play an important role in indicating the most profitable locations to other. Similar results were shown by study of Barry et al. (2001)., their model shows that firms may find it rational to agglomerate spatially even if there are no efficiency reasons for doing so. This is due to reputation effects which make it optimal for firms to mimic each others' location decisions. Key results of Kim's analysis (Kim 2003) show that both promotion expenditures and agglomeration economies are important in attracting. Results show that promotion expenditures can substitute for lack of both urbanization and localization economies and thus appear to be a useful economic development tool as less populous states with comparatively less manufacturing activity compete for investment. As a result, some regional policy in FDI attraction is needed.

Second very important aspect of FDI from regional development perspective is possibility of spillovers or linkage creation. If we accept the reality of FDI concentration, the regional policy of the hosting country must be more oriented of supporting and spreading the positive effects of FDI also to the more lagging behind regions. Linkages of foreign-owned plants with

domestic firms are considered the most important mechanism through which technology transfer takes place (UNCTAD 2001), so this could represent possible way of spreading positive effects of FDI into less developed regions of the country. We could assume it will be specially case of countries in transition. However, several studies done for Central and Eastern Europe brings mixed results (see e.g. Pavlínek 2004, Halpern 2005, Gorondichenko 2007, Damijan 2008). The majority of studies confine their empirical analysis to a single or dual type of linkage, typically local sourcing or backward linkages with suppliers. These studies contribute to our understanding of the extent of each of these types of inter-firm linkages, but do not offer a complete picture of affiliates' linkage behaviour (Kennel 2007). In her research, only 14 percent of FDI firms demonstrated their involvement with a wide range of linkages – from competition effects to collaboration. Policy makers need to understand that FDI stocks and inward flows are not necessarily correlated with long-term beneficial effects on domestic industry, unless they can be attributed to the types of firms that will engage in linkages that subsequently force or encourage domestic firms to increase output, productivity and performance. From regional policy view, importance of the geographical proximity between MNCs and domestic firms in relation to the occurrence of FDI spillovers was confirmed (Crespo 2007), so policy must try to find some ways how to move them “more further”.

### **FDI promotion and regional policy**

There could be two basic attitude to FDI. First will be „do nothing policy“, but this policy usually could work only if the country is very strong or very weak (Dunning 2008). Despite the questionable benefits of FDI, most of the countries use the second attitude and try to stimulate FDI inflow by different measures. There could be three reasons for government to act: correct market failures, compensate for intervention of others and weigh in as a player in strategic trade struggle (Moran 1998). However, these interventions are sometimes not very helpful. Several studies try to evaluate ability of regional policy to attract FDI. There are three main problems with state or regional support of FDI - FDI would be realized without this support, support will discriminate other enterprises and support will be higher than benefits for country (UNCTAD 2003).

Analysing the location pattern of FDI across European regions, was found a number significant regional attraction factors (CEC 2006): good infrastructure and accessibility, a

highly educated regional workforce and a high level of spending on R&D attract FDI. Also good penetration of information- and communication technologies and a large pool of competitors, clients and suppliers within the firm's industry are shown to attract FDI. However, other factors that can not be influenced at the regional level, such as firm specific conditions, national macro-conditions, market size, geography and language, are equally or more important. By enhancing the local supply of human capital and modern infrastructure and by improving other fundamentals for economic growth, a region does not only become a more attractive host region for foreign firms, it also increases the likelihood for benefits from the foreign firms through the spillover mechanisms (CEC 2006).

One of the most important and quite generally accepted is necessity of certain absorptive capacity of domestic firms. Many studies have shown that a smaller technology gap between domestic and foreign firms increases the likelihood of linkages and spillovers occurring due to better absorptive capacity (Kumar 1998, Kennel 2007, Dunning 2008). As result, policies aimed at fostering local entrepreneurial activities should be favoured.

Special attention is given to public subsidies to concrete investors. While the previous mentioned factors (as educated workforce or good infrastructure) are generally accepted as positive on FDI inflow, the effectivity of direct investment support is more questionable. Some studies suggest, that public policy based on incentives and subsidies, in the past has proved ineffective (Pini 2010). Some previous studies have also pointed to the fact that direct subsidies to attract foreign investors (such as tax holidays) tend to shift profits and welfare away from the host regions towards foreign firms and their home regions (CEC 2006). FDI promotion programs are very often selective and concentrated on particular sectors, placing the government into a position of trying to measure externalities and pick winners and losers better than market would (Moran 1998). Experience also shows that policy based interventions that spread incentives among too many recipients can result in funding being badly targeted (Pini 2010). Cass (2007) found out, the incentives even not function as a compensation for some disadvantages, but we could consider then just a tool of competitive fight for FDI. However, according to the studies some success factors appear to be exogenous to governments and depend exclusively on the parent global strategies (Rama 2008).

On a more general level our distinction of efficiency agglomeration and demonstration effects also suggests policy implications. If firms are attracted by the former, the government can assist the build-up of such agglomerations through educational policies, support of subsupply

industries etc. On the other hand, if firms are only attracted because of demonstration effects, it is important from an economic development point of view to attract a significant number of firms into the host country which are able to signal to other firms the reliability of the host country (Barry 2001).

To summarize, regional policy as a policy oriented on more equal regional development, should concentrate primarily on two main things.

First, the policy must try to support cluster creation with respect to include domestic enterprises into global networks. The example of Ireland shows that successful strategies based on clustering and export platform require sectoral selectivity, which in turn requires some degree of project selectivity. Project selectivity in turn requires a careful cost-benefit analysis and strategically planned bargaining between state of MNC (Buckley 2006). Regional policies supporting clusters and specialization are considered to be next generation regional policy.

Second, coordination with other policies is necessary. Coordination and implementation of support initiatives is often hampered by a lack of standardized procedures. Regional government cannot take the place of system actors, but it can act to support and foster interaction, coordination, connections and synergies through the promotion of good practice and experience from inside and outside the local context (Pini 2010). This is partly because of lack of clear policy goals or targets (Cass 2007).

### **Case study of Slovakia**

Slovakia became interesting destination for manufacturing FDI, especially in automotive and electrical engineering sectors. The level of FDI has been increased substantially last 10 years. The increase of FDI was not in all country equally spread. The main volume of FDI was concentrated on western (more developed) part of the country. We provided several interviews to identify possibilities of spreading more benefits from FDI spillovers to the less developed regions. We also evaluate regional policy of Slovakia in order to identify other measures needed to obtain more positive outputs from FDI presence.

For Slovakia, there was no regional policy in FDI promotion until 2002, despite one of the biggest regional disparities in Europe (Šipikal 2006). Promotion agencies of central Europe were very strongly concentrate on getting FDI into their own country, no matter where exactly. Some consider their activities as „race to the bottom“. After EU enlargement, there

were changes in FDI promotion policies, mainly due to investment support harmonization under the state aid rules (Oxelheim 2004). Still, vast majority of state support goes to most developed regions of the country. There are three zones – red, yellow and green - whose are set up according to the level of unemployment in the country. These zones limit the maximum state support, which could be given to foreign investor. However, as mentioned before, most of the incentives are spend in agglomeration regions in the reality. For example, there were incentives approved only for the investors in western Slovakia in electronics industry during the year 2001 - 2005.

One of main possibilities of profit from FDI presence is spillover to local suppliers. We analyze some suppliers of FD automotive investor in order to identify potencial spillovers from their point of view. Most of suppliers were directly influence by foreign investor. Companies mentioned mainly the direct influence of production process, know how in quality and logistics management. Most of them valued also the possibility to see different style of company management. The positive effects were achieved even in the companies, whose cooperate with foreign investor only partly (less than 10% of their production goes to them). Only 15 percent of the supplier companies did not see any direct influence from cooperation with investor. Very important spillovers are in the quality system and quality control. This looks probably as the most important flow of knowledge spillovers from FDI. This is clear example, that the “soft” technology transfer looks more important as “hard” technology transfer in this sector. Very limited spillovers were observed on market and marketing issues. One of the reasons could be, that main reason of cooperation is good quality product supply, so they concentrate more on quality and technology. Another frequently mentioned spillover, especially by domestic companies, was ability to work in just in time system, which was no common practice in Slovak companies. Some spillovers were view also on education system in the region. Several cooperation projects with local schools are running, especially in high schools within the region of localization of investor.

We also found kind of “cascade” effects of FDI presence in automotive sector in Slovakia. FDI was very concentrate in most developed region in the beginning of FDI incoming period (1993-2002). Nearly 100% of the FDI were in Bratislava region. Later, “top-down” cluster started around VW production plan, resulting in more FDI presence in VW suppliers network. In 2004, another final production car maker (PSA) established in Trnava, second most developed region and strong line of suppliers started to establish along D1 highway line

connected with VW and PSA production halls. In 2006, another car maker (KIA) establish in Zilina, moving the automotive sectors more to the east. As a result, automotive sector is now much evenly spread among the regions. Now, the main increase of the FDI (and also automotive sector as whole) is in the regions of west and north Slovakia (region ranking as middle developed compare to Slovakia average).

Map1: Most important companies in automotive sector in Slovakia

Picture 1 here

Source: data from own database

On the other hand, very few linkages are created to local economy. For PSA in Trnava, there are 475 suppliers, but less than 1,5% are domestic companies in the sense of ownership. Only 14,5% of suppliers are located in Slovak Republic, even 6 years after investment. Despite of low level of domestic suppliers, there is no direct crowd out effects, because there was nearly no automotive sector in Slovakia before FDI. Some horizontal spillovers are observe in engineering companies, whose partly also supply the automotive sector. These companies strengthen more their “soft” skills as “hard” one. It was mainly in field of management, marketing and quality control.

Similar situation is in electrical engineering industry. Most of the industry output also comes from foreign direct investment. More than 90% of industry employment was in foreign plants, compare to less than 40% ten years ago. This also suggests that vertical spillover would be very limited due to absence of domestic sector (similar to automotive sector). However, the share of domestic suppliers is a little bigger than in automotive industry. The regional shift of localisation from west to east region is also evident in this sector. The location coefficient of electrical engineering of eastern region rise by 55% in Košice and 31% in Prešov region (both eastern regions), compare to diminished coefficient in Žilina or Bratislava region. The shift could be also seen from investment incentives, which were offer to the investors. They were much more spread among all regions during last three years compares to how it was previous years. The value of incentives per one new job were very different, from 7900 EUR (Delta electronics) to 88 900 EUR (Samsung Electronics), showing lack of clear evaluation system in incentives schemes. We observe less cooperation with universities and high schools as we could see in automotive sector.



## Conclusions

Foreign direct investment tends to concentrate in the most developed regions. However, there are some possible and positive externalities, which could help also less developed regions to profit from FDI attraction. We found in case of automotive and electrical engineering industry, that FDI could with some time delay also bring benefits to less developed regions. The study shows, that policy is not able to really change the patterns of FDI, so strict policy orientation only on less developed regions will probably do not be able to achieve required outcomes. It looks to be more important to stimulate FDI inflow into agglomeration regions or regions with adequate preconditions and then try to support FDI “cascade” effects to less developed regions. Regional policy could play an important role in this process. In case of Slovakia, the regional policy should concentrate on following activities:

### 1. Establish clear evaluation system for FDI

Clear cost benefit analysis of the investment support must be done in order to be able to evaluate the benefit of FDI inflow. Special attention must be given to potential spillovers from investment. CBA need to be adopted to be able to determine net effect of FDI. System should also set to estimate basic level of public support. System should take into account also regional dimension of support and potential linkages of new investors to domestic suppliers as well as other companies or public institution (especially in case of research activities).

### 2. Establish support programs for domestic companies

There are no support programs for domestic enterprises to become part of a global network. The support programs should be oriented on fulfilling the criteria of global players and increase absorptive capacity of domestic firms. The domestic companies are very rarely represented in global networks, partly due to lack of technology and partly because they do not know, how to get into these networks. There is a room for regional policy intervention. Creation of linkage programs and support programs for quality improvement could have more effect as direct support of new incoming FDI. Increase the absorptive capacity of domestic companies is vital for ability to achieve more spread effects of FDI.

### 3. Embedding the investment

Following the previous point, except creation of direct links between MNC and domestic companies, also links should be strengthened in order to “embed” the investment, so allowing “roots” to be spread into other regions. It means to support common R&D programs with companies, science parks and universities. Good after care system is also important to strengthen links with public governance institutions. We could see this example working in automotive sector, but is much less visible in other sectors with FDI.

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