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**Foreign Direct Investment in
Times of Global Economic Crisis:
Spotlight on New Europe**

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Abstract:

This paper examines the potential impact of the economic crisis – started in 2008 – on the dynamics global foreign direct investment, especially in the new member states of the European Union. The global economic crisis that hit the world in 2008 has forced scholars and policy makers alike to rethink their approaches to the global economy, in particular to financial markets (including stock exchanges and portfolio investment). It can be hypothesised that the crisis has been particularly devastating because it has resulted from the coincidence of three factors: a cyclical downturn in the world economy; a structural change that hit certain industries which used to be star performers in the global economy (especially the automotive industry); and the collapse of the previous model of the financial industry based on excesses. This paper asks how this crisis affects foreign direct investment flows, with special attention being paid to the question of which locations are set to lose the least and which ones are set to lose the most. In this respect, particular attention is paid to the activities of subsidiaries of multinational enterprises. These subsidiaries can follow different scenarios as a response to the global economic turmoil, including a reorganization of their production systems, and a reduction or closure of activities that are deemed to be less necessary for the continuation of activities. Finally, the paper examines the policy implications of the crisis. It challenges the view that rising economic nationalism (in the form of protecting one location against locations in other countries) would be the right answer to the problems created by corporate restructurings.

Keywords: foreign direct investment, credit crunch, foreign subsidiaries, Europe

JEL: F01, F23, O30

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1. Introduction

The first indications of a global financial crisis emerged in the middle of 2007 with rising defaults on subprime mortgages in the U.S. The crisis of money markets erupted in 2008. Stock markets have fallen, large financial institutions have collapsed or been bought out by the state, and governments around the world had to come up with rescue packages to bail out their financial systems. Not only private financial institutions (such as Lehman Brothers and Morgan Stanley), but even nations (such as Iceland) found themselves on the verge of bankruptcy. As financial institutions have been increasingly forced to raise capital and tackle the liquidity problem, decreasing international bank lending, falling stock exchanges, declining portfolio investment, and initial public offerings (IPOs) put the international financial market on hold.

The onset of the financial crisis coincided with a structural crisis in the world economy. Industries that used to perform well in terms of growth over a long historical period, developed huge excess capacities, and as global demand started to weaken, they fell into a deep recession. Of all industries of the world, automotive has been the most hit. For decades, the industry benefited largely from the expansion of the motorist society, based on an extensive use of hydrocarbons. However, once that model came to a halt in its largest consumer societies (the developed countries), and income at disposal for further consumption dwindled (partly due to the financial crisis), the automotive industry entered the deepest recession of its history.

The financial crisis also coincided with a third unfavourable movement, namely the slowdown of the economic cycle. This made the effects of the crisis particularly devastating, and has forced scholars to rethink their thinking about the roles of market forces and State intervention.

This paper examines the impact of the triple crisis on foreign direct investment (FDI), with special reference to the situation in the new member states of the European Union (EU). It has to be emphasised that FDI has reacted to the crisis differently from portfolio investment, due to differences between the two. Portfolio investment and FDI both entail ownership of shares/stock. However, this ownership is fundamentally different. Portfolio investment is limited to minority participation (usually less than 10% of shares), and as a rule, it has no management influence and pursues purely financial interest. Therefore, it has short-term or temporary time range. On the other hand, foreign direct investment implies majority or even full ownership and strong management influence (Dunning and Lundan, 2008). As it has “build and expand” character, it operates in the long-term time range. In other words, portfolio investment is mostly about financial interests, while FDI is mostly about technology, management skills (the so-called “ownership advantages” of multinational enterprises (MNEs)), and about the organisation of the international division of labour (the so-called “internalisation advantages”) (Dunning and Lundan, 2008).

The benefits of FDI argued by the academic literature and policymakers alike include capital investment, employment opportunities, generation of tax revenues, higher exports, and access to foreign technologies. As Joseph Stiglitz noted, “*The argument for foreign direct investment ... is compelling. Such investment brings with it not only resources, but also technology, access to markets, and (hopefully) valuable training, an improvement in human capital. Foreign direct investment is also not as volatile – and therefore as disruptive – as the short-term flows that can rush into a country and, just as precipitously, rush out*” (Stiglitz, 2000: 1076).

As a result of the main differences, portfolio investment and FDI have reacted differently to the crisis. Portfolio investment fell precipitously in response to the coupled effects of the

financial crisis and cyclical slowdown, making these flows negative in most cases. In turn, FDI, which represents longer-term strategic interest in companies, reacted less to the coupled effects of the triple crisis, strong reaction was mostly confined to activities that have been affected by the structural crisis, such as the automotive industry. It is true that MNEs, faced with the problem of financial liquidity on the global market, falling corporate profits and gloomy prospects, have had to readjust their expansion strategies and postpone already planned investment projects. As a consequence, it is expected that FDI flows decline. The tempo is however slower, given the fact that MNEs have their own financial resources, and their projects already engaged before the crisis are expected to continue. One should also consider that there are industries that are little hit by the crisis (e.g. food and beverages), and certain niche activities that even benefit from the crisis (e.g. fast food, which replaces more expensive restaurants).

This study uses various forms of evidence as measurement, including flows of FDI, measures of activities of the subsidiaries¹ of MNEs and other evidence, as appropriate.

Similarly to domestic firms, foreign subsidiaries are at jeopardy as the crisis unfolds. However, unlike any domestic firm, a foreign subsidiary is a unique object of analysis due to its dual nature – being a part of an MNE and a host national economy. Moreover, a recent stream of literature on subsidiaries of MNEs has emphasised a significant heterogeneity of subsidiaries. Therefore it is not surprising that response to the economic crisis will depend not only on the industry, host economy, but more so, on the type of a given subsidiary.

In this paper we analyse the responses of the established foreign subsidiaries to the crisis, in function of their role and type, and in the specific setting of the European Union. In most cases we focus on Central and Eastern European new EU member states. This focus is justified by the fact that FDI was an important engine of transition towards market economy in these countries in the 1990s. It is no surprise that subsidiaries of foreign MNEs became an important part of national economies (Hunya, 2000). Because of its dependence on inward FDI, these economies represent a good case for the analysis of the potential impact of the crisis on operations of foreign subsidiaries.

The paper is structured as follows. The next session presents an overview of the current situation in terms of FDI flows and stocks. Section 3 provides analysis of the consequences of the crisis for foreign subsidiaries, particularly in new EU member states. Section 4 elaborates on the prospects in times of global crisis. Finally, section 5 provides policy implications.

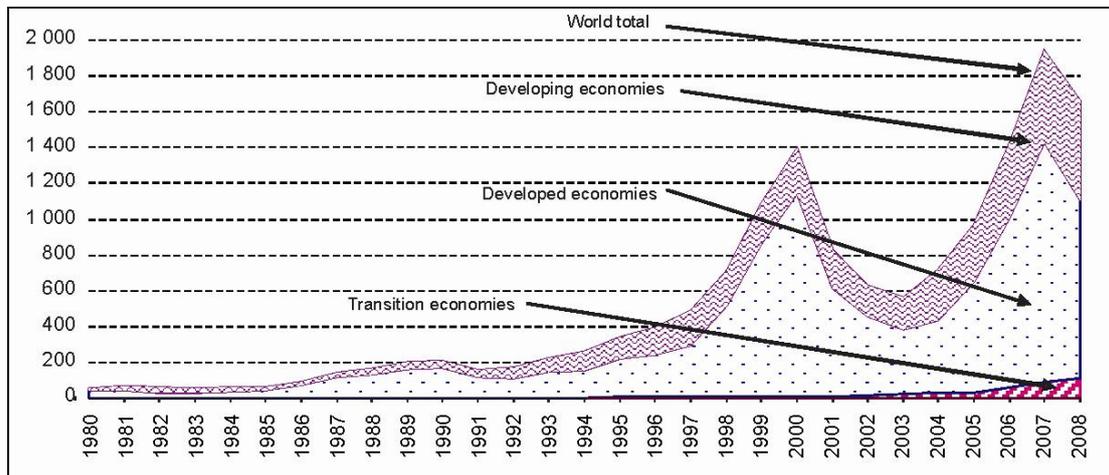
¹ MNEs can own various types of entities abroad, including subsidiaries (enterprises incorporated in host countries in which the MNEs directly own more than a half of the shares), associate companies (enterprises incorporated in host countries in which the MNEs own at least 10%, but not more than half, of the shares), and branches (wholly or jointly owned unincorporated enterprises, such as offices of the MNEs). These three types of entities together are referred to as foreign affiliates (UNCTAD, 2008, p. 249). This study focuses on subsidiaries, the units most directly controlled by MNEs.

2. Foreign Direct Investment Flows: Worldwide and Europe

The year 2008 marked the end of a cycle in FDI. As the crisis unfolded and corporate and project finance were weakening, equity investment and foreign direct investment alike came under pressure. Many planned takeovers were put on hold and greenfield projects postponed as the financing got harder and business prospects gloomier. Existing projects also came under pressure, especially in terms of employment levels. At the “epicentre” of the crisis, developed countries suffered from a fall of FDI by one-third in 2008. Developing economies started to feel the impact later, and might remain less affected, although far from being immune of the crisis. Preliminary data for 2008 show a dampening effect of the crisis. According to the estimate that UNCTAD released recently (UNCTAD, 2009), global FDI inflows were estimated to decline by about 15% in 2008, to \$1.7 trillion (figure 1).

Figure 1. FDI inflows, worldwide and by group of economies, 1980–2008

(Billions of U.S. dollars)



Source: UNCTAD, 2009.

The financial component of the triple crisis is transmitted to FDI through tighter credit conditions and lower corporate profits that weaken companies' capability to finance their overseas projects. On the other hand, the cyclical downturn and a heightened appreciation of risk have eroded business confidence and therefore companies' propensity to expand internationally. As a result, many large MNEs have revised their global expansion plans, and a large number of greenfield and cross-border merger and acquisition (M&A) projects are being cancelled or suspended. The trend is widespread but particularly strong in the industries hit by the structural crisis (automotive industry and its suppliers in particular).

The deterioration of investment prospects was progressive: the crisis had practically no impact on global FDI flows in 2007 and in the first half of 2008, but began to bite in the second half of 2008. Decline in global FDI in 2008 marked the end of a growth cycle which lasted four years (figure 1). A major concern now is how long the downturn will last and how deep it will go. The fall in FDI will certainly continue and deepen in 2009. Judging from preliminary data for the first quarter of 2009 on cross-border M&As as in indicator, there was a large fall in FDI in all three groups of economies (UNCTAD, 2009). In developing countries, a dramatic fall started in the first quarter of 2009: China showed a 26% decline in FDI inflows during the first two months

of 2009 over the same period of 2008; and FDI to the Republic of Korea were down by 38% in the first quarter of 2009 (UNCTAD, 2009).

The current situation is different from the last financial crisis, which originated in emerging Asian economies in 1997, and adversely influenced FDI inflow into these economies. The current crisis (both generally and in FDI) emerged in the developed world (namely in the U.S.), and while it has sent shock waves throughout the globe, damaging developed, developing and transition economies, it has hit the first group most.

Recent data (annex 1) suggests that the developed economies have been already hit hard by the crisis. Whereas the global foreign direct investment flows contracted by 15%, for the developed countries this decrease amounted to 25% (compared to flows in 2007). The decline of inward FDI flows has been particularly pronounced in Ireland (-140%), Finland (-134%), the Netherlands (-103%) and Italy (-67%), in that order.

Evidence for the new EU member states remain mixed. According to UNCTAD estimates, the growth of FDI inflows continued by 34% in Romania, 8% in Hungary and 3% in the Czech Republic, while a fall in FDI inflows was recorded in Poland (-28%) (annex 1). These economies (classified “developed” in United Nations statistics) relied heavily on the FDI inflows for economic restructuring in the transition period in the 1990s; presently, they still rely on foreign investors, attracting FDI in higher value added industries and functions. The differences in FDI inflows in these countries can be explained by idiosyncratic structure of national economies.

The same report suggests that FDI flows in developing and transition economies have been more resilient, as initially the repercussions of the crisis for them were limited. However, since the end of 2008 the intensification of the crisis has dramatically changed the outlook for developing and transition economies, and the negative impacts of the crisis are yet to be fully transmitted to them.

The growth rate of FDI inflows to developing countries, although lower than in 2007, were expected to show an estimated 7% positive growth in 2008 (annex 1). Particularly, FDI flows to Africa were expected to have grown further, by 35%. Flows to East, South, and South-East Asia may have risen as well during 2008, but by a slower rate than they did previously (only 6%). FDI flows to Latin America and the Caribbean were expected to have shown significant resilience to the economic downturn and were expected to have increased by 9%. FDI flows to the transition economies of South-East Europe and the Commonwealth of Independent States (CIS) were estimated to have maintained their upward trend and registered an impressive increase of 24%. Overall, four emerging economies of Brazil, China, India and the Russian Federation were all estimated to have experienced a rise in FDI in 2008, ranging from 11% in China to 85% in India.

The impact of the crisis varies widely depending on region and country, and hence we shall witness varying impacts on the geographic patterns of FDI flows (UNCTAD, 2009). Nevertheless, some outcomes will be common for most countries, namely, weaker export revenues and therefore further pressures on current accounts and balance of payment, lower investment and growth rates, and higher unemployment.

Specifically for the European Union, the European Commission (2008) estimates that the economic growth fell to about 1% in 2008, from around 3% in 2007. Moreover, it is forecast that the real GDP is to contract by almost 2% in the EU in 2009. Unemployment is set to rise reaching 8.75% in the EU in 2009, with even further increase in 2010.

3. Foreign Subsidiaries in the Times of Crisis

This section analyses the possible responses of foreign subsidiaries in new EU member countries, using a typology of subsidiaries developed for a general global context. Despite the fact that it is not geared towards any specific grouping, and it is more applicable to manufacturing, than to services, subsidiaries, it seems to apply well to the case of the new EU member countries, where large flows of FDI often started in manufacturing activities (in the garment, automotive and electronics industries, in particular). Moreover, with some adjustment, this typology can be also applied to newly emerging services FDI, too.

a. A typology of subsidiaries

In a manner similar to that of domestic firms, foreign subsidiaries are facing deteriorating market conditions, e.g. contracting consumer demand and difficulties in accessing financing. On the other hands, subsidiaries are parts and parcels of their respective MNEs (sister subsidiaries and parent companies). The impact of the crisis varies greatly depending on the industry, markets, countries, and in the case of subsidiaries – depending on the type of subsidiary. Although analysis can be rather speculative at this stage considering the uncertainty of the global markets, it does provide foundations for further research.

Present day academic research on subsidiaries and subsidiary management places a great deal of emphasis on their heterogeneity, on the premise that subsidiaries assume different roles within a MNE (a corporate network). Extant body of research on subsidiaries has employed several typologies of subsidiary roles and strategies, where the most popular is the one distinguishing between subsidiaries in terms of product scope (product line extensions and new product areas), market scope (range of geographic markets available to the subsidiary) and value added scope (range of functions performed by the subsidiary – development, manufacturing, marketing).

This typology stems from White and Poynter's (1984) pioneering study (and later – D'Cruz, 1986) who provided a first typology of subsidiaries for the analysis of direct investment of U.S. firms in Canada. Originally, five types of subsidiaries were identified: miniature replica, marketing satellite, rationalised manufacturer, product specialist and strategic independent. The typology has been modified over time and widely used in studies on subsidiaries (Pearce, 1992, 1999, 2001; Papanastassiou, 1995, 1999). In its most common form the present typology determines three types of subsidiaries: truncated miniature replica (TMR), rationalised product subsidiary (RPS) and world/regional product mandates (WPM).

Firstly, the truncated miniature replica is the basic type of subsidiary pursuing a market-seeking strategy by supplying already well-established goods to a particular market. Establishment of these subsidiaries was a reaction to barriers to trade. MNEs had to establish production within the host economy since high trade tariffs made goods produced elsewhere and imported into host economy uncompetitive. However, the global economy has undergone considerable changes. The most important change is the global liberalisation and proliferation of free trade. In fact, free trade heralded the demise of the miniature replica subsidiary. It would not be correct to imagine full disappearance of this type of subsidiary; rather, it is a transformation of this model. Miniature replica subsidiaries may exist in order to produce goods tailored to the idiosyncrasies of the domestic market. In fact, a miniature replica – minimalist subsidiary – can in fact serve several markets in addition to its host economy (with the same goods). Since these subsidiaries are

locally-oriented, the impact of the crisis will be translated through the situation on the local consumer good market.

The rationalised producer subsidiary is becoming more important in the global economy. It pursues an efficiency-seeking imperative and assumes a specialised or complementary product responsibility. This subsidiary reaps the economies of scale (focusing on supply of products that makes intensive use of factors of production in which a host country has a comparative advantage) and manufactures goods for a very wide market scope (i.e. export-orientation and narrow product scope) in a cost-effective way. Rationalised producer is highly embedded into a MNE network, interdependent with other subsidiaries. Functional scope is very restricted. This subsidiary type can be further split into two types. Firstly, it is a specialised subsidiary, which produces a certain set of component parts and they are further processed by other parts of the corporate group. For example, this type of subsidiaries is abundantly present in the automotive industry. Secondly, a subsidiary can be an export platform meaning that it produces a certain set of existing final products for multi-country or global market. This type of subsidiary is particularly typical for the specific export industries. This distinction is for purely analytical reasons, where the main idea is that a rationalised producer manufactures intermediate products, and an export platform – final goods. These subsidiaries are oriented towards foreign markets, and therefore their performance is directly affected by the market conditions abroad, and even global demand for particular types of goods.

World (or regional) product mandate (WPM/RPM) pursues a strategic asset-seeking imperative. This subsidiary is fully responsible for the creation, manufacturing, marketing, distribution and further development of a product. In order to receive this status, subsidiaries should possess distinctive competence. The success factors would include unique local technological competence, local science base (partnerships with local universities) or human capital (talented personnel). In other words, these distinctive capabilities and competences are used as inputs into product development process. WPM subsidiaries have by definition a wide geographical market scope (since they serve global markets); the product scope is narrow (only one of a few goods in which the subsidiary has gained competence) and the functional scope is very wide as the subsidiary possesses a full range of corporate functions. Emergence of WPM has been spurred by various factors, such as technological heterogeneity of individual countries (hence benefiting subsidiaries located in specific countries and internalising dispersed knowledge), ability of MNEs to coordinate efficiently and effectively dispersed subsidiaries (information and communication technologies is a key driver of this process). In house R&D capacity is very likely and even necessary for successful production of a product. These subsidiaries are affected by the developments on global markets, however, they are deeply rooted domestically. Therefore, a combination of both foreign and domestic factors should be taken into account when analysing possible impact of the global crisis.

Moreover, there are various single-activity subsidiaries positioned at the extremes of value-adding chain, such as sales offices / marketing and post-sales services, stand-alone R&D laboratory and so on. The differences between main types of subsidiaries are summarised in Table 1.

Table 1. Comparative analysis of various types of subsidiaries

Subsidiary type	FDI Strategy	Market scope	Product scope	Functional scope
Minimalist subsidiary	Market-seeking	Narrow and isolated (a host country, and possibly neighbouring countries)	Extensive	Limited (Production and routine marketing; R&D for local adaptation)
Export platform	Efficiency-seeking	Very wide (world / region)	Limited	Very limited (Production, no R&D)
Rationalised producer	Efficiency-seeking	Very wide (world / region)	Intermediates for sister subsidiaries	Very limited (Production, no R&D)
Product mandate	Asset-seeking	Very wide (world / region)	Limited	Wide (R&D, production)

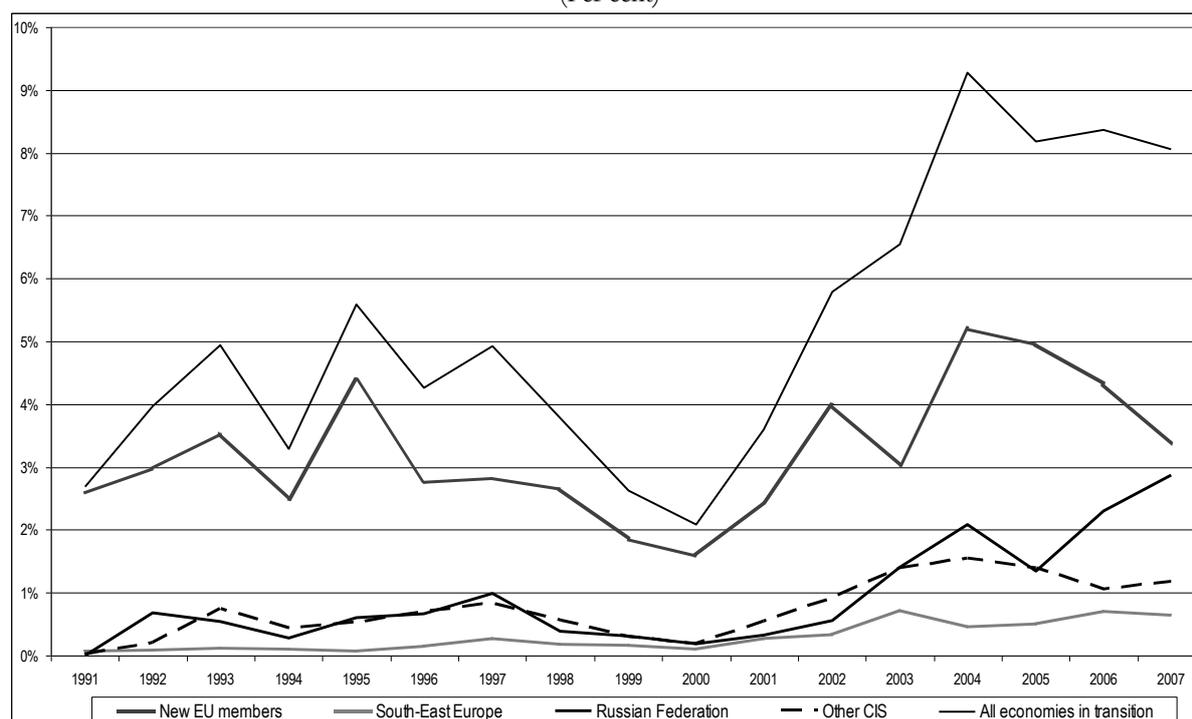
Source: the authors.

b. The case of new EU member states

We attempt to apply this typology into a specific situation not only in time (the current crisis) but also in space: to the transition economies that became members of the European Union in 2004 and 2007. This geographical focus has major consequences for our analysis. Historically, in most economies in transition, from the mid-1990s onwards, inward FDI has gained importance in economic growth and transition to market economy (UNCTAD, 2003). Beyond its contribution to financial resources, investment, technology and providing access to markets, inward FDI in economies in transition has also played a role in the strengthening of the private sector and the emergence of market-economy behaviour, as well as the elimination of macroeconomic distortions inherited from earlier centrally planned systems (Kalotay, 2001). Industrial restructuring accelerated when privatization involving FDI was stepped up (Hunya, 2000).

FDI played a major role in the reintegration of countries in transition into the world economy in the 1990s. That resulted in an important, although uneven, participation of MNEs in privatization and the creation of a market economy. That logically meant that FDI had to play a role in economic transformation that was deeper than in non-transition economies at a similar level of development (Kalotay, 2001). This meant that FDI has a major impact in shaping the insertion of these countries into the international division of labour, favouring such forms as export platforms, established there. Moreover, countries in transition had to overcome a legacy of isolation by way of re-conquering their place in the international division labour. That was a process far from being complete, as evidenced by the relatively small amount of FDI these economies received within the EU, even after accession (figure 2, Kalotay, 2006).

Figure 2. Share of economies in transition in global FDI inflows, 1991–2007
(Per cent)



Source: UNCTAD, FDI/TNC database.

The volume of FDI inflows can serve as a raw proxy for the activities of MNEs in a particular country, especially when other types of information are not readily available. However, it provides little information about the types and activities of subsidiaries established. Some data can be obtained from reports of national investment promotion agencies, but overall lack of detailed data represents a common problem in the studies of subsidiary roles and types.

Based on the secondary data and analytical reports (cf. Hunya, 2000; Kalotay, 2006; Szanyi, 2006; UNCTAD, 2003, etc.), we can make several observations. In economies in transition, especially in new EU member states, subsidiaries with a product mandate are almost non-existent. They exist in the case of certain R&D laboratories. However, as most R&D by foreign subsidiaries is in the form of product development for parent firms, and is often related to production sites, only a small fraction of R&D belongs to this category. As product mandate subsidiaries belong to the variety which is least expected to be threatened by the crisis, unless the entire MNE goes bankrupt, this can explain the relative vulnerability of these countries to the global downturn. Minimalist subsidiaries are more frequent, especially as a result of large privatisation deals, under which large local market oriented units became foreign-owned without necessarily being deeply integrated in the corporate network. These subsidiaries might suffer in the crisis, especially in societies where the local consumer purchasing power declines (e.g. in the Baltic States and Hungary).

It emerges that the efficiency-seeking export platform and rationalised producer are the main units of analysis in terms of assessing potential impact of the crisis. Such units are present not only in the manufacturing industries (automotive, electronics and garments) but also in export oriented services (such as shared services centres, and a large part of R&D activities).² The distinction between export platform and rationalised producer is rather analytical. In the automotive industry, assembly plants can be usually treated as export platforms, while most of

² This is why we can talk about an “R&D platform” in new EU member states (cf. Kalotay, 2005).

the spare part suppliers moving together with the automotive MNEs belong to the category of rationalised producer. However, as final producers and suppliers belong to the same network, they can be in fact treated together as a single type of subsidiaries.

In the following sub-section we focus on the export platform of the automotive industry, as these subsidiaries represent a sizeable distinctive group. Since many Central and Eastern European countries rely heavily on this group of subsidiaries, the analysis of these subsidiaries bears ultimate importance for entire national economies.

c. The case of the automotive export platforms

Economies in transition are home to a large number of export platforms, especially in the automotive and electronics industries (Kalotay, 2002). While these new EU members has attracted particularly all types of subsidiaries, these export platforms – together with R&D platforms (Kalotay, 2005) – are the most salient examples of subsidiaries in the “the new EU”. Export platform subsidiaries have grown in the new EU member states especially in the wake of the accession to the Union. Carmakers are drawn to these countries because they offer an inexpensive but skilled work force, low taxes, good highways and other logistics. They are strategically located in the geographic heart of Europe that is close not only to the European core, but also to the emerging markets in Russia, Ukraine and elsewhere in the former Soviet Union.

Of the industries brought in or strengthened by inward FDI, electronics and automotive are particularly important from the point of view of enhancing competitiveness and structural upgrading (UNCTAD, 2002; Szanyi, 2006), as well as technological progress (Pavlínek, 2002). They differ however in the sense that FDI in electronics enhances technological upgrading but a weaker contribution to local supplier links, while the reverse is true to the automotive industry. For economies in transition, as they need to strengthen their domestic enterprises parallel with their opening to international transactions, automotive industry is one of the main channels of potential linkages with local suppliers, although often at the level of second-tier suppliers only in the initial phase of new projects (Ferenčíková and Fifeková, 2006). Additionally, the automotive industry has a strong a clustering effect on the host economy (Radosevic and Rozeik, 2005).

In economies in transition, practically all projects are related to FDI. At the early stages of transition, countries with capacities inherited from communist times, such as the Czech Republic and Poland, opted for the privatisation of existing factories, while in countries where these capacities were lacking at the outset, greenfield projects dominated FDI in automotive from the outset (table 2). However, as time passed by, greenfield investment became the main form of FDI. It is important to note that in the longer run, differences between modes of entry (privatisation versus greenfield projects) have mattered little, as privatisation projects in most cases have in fact been ‘brownfield’ projects, in which the initial sales have been followed by new investments by the new owners (Meyer and Estrin, 2001). In both cases, foreign owners were quick in introducing improved management and organisational practices (Pavlínek, 2002). The main differences between the two modes of entry lie in the level of local value added after the entry of foreign investors, which tended to be high in privatised plants and low in greenfield projects, with a tendency of convergence at later stages. It is also notable that local embeddedness has depended much on the technological sophistication of the assembly factories: high-technology projects such as Audi (Hungary) have had much more limited local sourcing than lower-technology projects such as Suzuki (Hungary) (UNCTAD, 2002).

Table 2. Economies in transition are host to large car assembly projects: examples, 2007

Country	Location	Producer	Established	Form of entry
Czech Republic	Mlada Boleslav	Volkswagen/ Skoda	1991	Privatisation
	Kolin	Toyota/PSA	2002	Greenfield
	Novosice	Hyundai	2006	Greenfield
Hungary	Esztergom	Suzuki	1991	Greenfield
	Győr	Audi	1992	Greenfield
Poland	Bielso Biala	Fiat	1991	Privatisation
	Poznan	Volkswagen	1993	Greenfield
	Warsaw	Daewoo FSO	1996	Privatisation
	Gliwice	General Motors/Opel	1998	Greenfield
Romania	Pitesti	Renault Dacia	1995	Privatisation
Russian Federation	Togliatti	GM/AvtoVAZ joint venture	2002	Privatisation
	Vzhevolovsk	Ford	2002	Greenfield
	Moscow	Renault	2005	Privatisation
Slovakia	Bratislava	Volkswagen	1993	Privatisation
	Trnava	PSA/Peugeot	2003	Greenfield
	Zilina	Hyundai/KIA	2004	Greenfield
Slovenia	Novo Mesto	Renault	1991	Privatisation

Source: UNCTAD.

FDI in automotive assembly has accentuated or exacerbated the differentiation between countries, especially the haves: Czech Republic, Hungary, Poland, Russian Federation, Slovakia, Slovenia etc., and the have nots: large parts of the CIS (table 2). It has prompted a very quick rise of automotive output in winner countries (table 3), but often at the expense of creating dependence on a single industry in winner countries: Almost 25% of Slovakian GDP, for example, was generated by the automotive industry in 2007.

Table 3. Production of passenger cars in selected countries, 2005–2007

Country	<i>(Number of units)</i>			
	2005	2006	2007	Change 2007/2005 (%)
Czech Republic	596 774	848 799	925 778	55.1
Poland	540 100	632 300	695 000	28.7
Slovakia	218 349	295 391	571 071	161.5
Hungary	148 553	187 633	287 982	93.9
Romania	174 538	201 663	234 103	34.1
Slovenia	138 393	119 212	174 209	25.9

Source: European Automobile Manufacturers' Association.

Considering the overall decline in the automotive industry, it is questionable whether car-making subsidiaries in new EU member states will sustain their success in the face of recession. Indeed, at the end of 2008 and the beginning of 2009, orders were declining, resulting in less capacity utilisation (e.g. shorter work weeks) and layoff of some staff in all export platforms in economies in transition, affecting for example, Skoda and Toyota/PSA in the Czech Republic, Kia, Volkswagen and PSA in Slovakia, and Suzuki and Audi in Hungary. Volkswagen's Skoda Auto unit in the Czech Republic for example was cutting production to deal with slackening demand, and analysts say 10,000 automotive jobs could be eliminated in that country.

However, some positive examples can be found. For example, recently³Audi invested €2.6 million in the plant in Győr (Hungary) to integrate production of the engines into its existing lines. The 205kW engines are produced specifically for Audi TT RS model. In this respect, this unit of Audi is supposed to perform a role of a rationalised producer subsidiary. Furthermore, subsidiaries manufacturing smaller, inexpensive and fuel-efficient models seem to be affected later by the crisis. For example, in the Slovak town of Zilina, the Korean KIA produces the Cee'd sedan and Sportage SUV, marketed to low- and middle-class buyers. The impact of the crisis was a bit better contained than elsewhere.

Another case when car production resists, at least partly, the recession, is the units with product mandates. Product mandates are “diamonds” in the subsidiary networks of MNEs; they engage in creative activities, and create value for an entire MNE. In principle, a MNE may be reluctant to close down or halt production in product mandate subsidiaries, unless its difficulties are so large that it has no other choice. Even in such a case, it is more rational to sell it to a potential buyer than to close it down.

c. Job losses in foreign subsidiaries: the case of Hungary

The global financial crisis has led to declining consumer demand, contracting economic activity and massive layoffs of workforce. This affected in particular the subsidiaries specialized in export platforms in industries hit by the crisis. In this section we take a closer look at the consequences of the crisis in terms of job losses in the case of the new EU member state of Hungary, felt mostly in its automotive industry. Hungary was particularly successful in attracting FDI projects for restructuring of the national economy in the 1990s. As a result of this FDI-led transition, the country has accumulated a large stock of foreign subsidiaries that became integral part of the national economy. Hence, Hungary represents an interesting case in order to assess the impact of the global financial crisis on foreign subsidiaries.

Nevertheless, Hungary does not represent a unique case among new EU member countries which have based their economic development on FDI in export platforms and rationalised producer subsidiaries. Looking at the most recent national data on manufacturing output and exports (table 4), Bulgaria, the Czech Republic, Estonia, Latvia, Slovakia and Slovenia, for example, all show very similar decline in industrial output (over 20%), in exports (over 20%) and in the exports of the transport industry (over 40%),⁴ despite the perception that Hungary is one of the countries most affected by the crisis of 2008–2009, while the others, with the exception of Estonia, have coped better with the consequences of the market turmoil.

³ ITDH Press Release on 30.03.2009. http://www.itdh.com/engine.aspx?page=showcontent_befekteto&content=09audi0330

⁴ Car exports data were available for Bulgaria, Estonia, Hungary, Lithuania and Poland only.

Table 4. Year-to-year changes in manufacturing output and exports, selected countries, February 2009

Country	Change in manufacturing output (%)	Change in manufacturing exports (%)	Change in the exports of transport equipment (%)
Bulgaria	-24.3	-39.2	-41.0 ^a
Czech Republic	-23.4	-22.2	...
Estonia	-32.7	-26.0	-54.0
Hungary	-26.1	-30.4	-48.1
Latvia	-24.3	-29.3	...
Lithuania	-17.9	-21.8	-31.9
Poland	...	-24.8	-25.7
Romania	-14.5	-15.9	...
Slovakia	-28.2	-31.0	...
Slovenia	-24.1	-25.1	-42.3 ^b

Source: Authors' calculation, based on national statistics.

^a Machinery and transport equipment.

^b January 2009

In Hungary, used here as an example of the effects of the crisis, various major job cuts affected the subsidiaries of foreign MNEs over the six-month period November 2008–April 2009 (table 5). As expected, the export-oriented subsidiaries of the car, electronics and garment industries, as well as the local market-oriented subsidiaries of foreign banks were the most affected by downsizing – in the case of the latter three industries firms involved in the creation of export platforms in the 1990s and now severely plagued by the collapse of international demand. Compared to foreign subsidiaries, local firms engaged less in job cuts.

Despite this generally negative picture, it is notable that the total size of massive downsizing remained relatively limited, especially compared to the generalized increase in unemployment,⁵ derived from non-announced downsizings by smaller firms (according to Hungarian legislation, only mass downsizings need to be announced to the authorities). Another corollary of this situation is that the large job cuts carried out by foreign subsidiaries are required to be accompanied by more social measures (e.g. severance payments, assistance to job search) than the job cuts carried out by small firms. It does not mean however that the impact of plant closures would be negligible in terms of lost demand for local supplies and lost purchasing power of employees, especially in smaller localities where the foreign subsidiary used to be a major source of employment. This was clearly the case when Levi's announced in April 2009 the closure of its garment factory and fired its 549 employees in the 29,000 person locality of Kiskunhalas.⁶

⁵ According to the data of the Hungarian Central Statistical Office, the number of unemployed people increased from 327 900 in the pre-crisis period of August–October 2008, to 377 700 in December 2008–February 2009, an increase of almost 50 thousand (<http://portal.ksh.hu/pls/ksh/docs/hun/xftp/gyor/fog/fog20902.pdf>), compared to a direct job loss of about 8 thousand at the foreign subsidiaries (table 5).

⁶ “Gyárbezárások, elbocsátások Bács-Kiskunban”, *Magyar Narancs* (Budapest), 9 April 2009, pp. 18–19.

Table 5. Selected cases of major job cuts in Hungary*Announced in November 2008–April 2009*

Corporation	Industry	Number of job losses
<i>Foreign subsidiaries</i>		
Suzuki	Automotive	1 200
Foxconn	Electronics	1 095
Jabil Circuit	Electronics	900
Linamar	Car components	709
Sanmina SCI	Electronics	550
Levi's	Garments	549
Digital Disc Drives (Bosch)	Electronics	500
Flextronics	Electronics	400
Syncreon	Car components	400
Van de Velde	Garments	340
Raiffeisen	Banking	315
CIB (Intesa Sanpaolo)	Banking	300
Magyar Telekom (Deutsche Telekom)	Telecom	300
Eybl	Car components	230
Falco (Kronospan)	Wood processing	182
<i>Local firms</i>		
Borsodchem	Chemicals	550
OTP	Banking	550
Ajka Kristály	Glass	250

Sources: Figyelő (Budapest), 9–15 April 2009, p.22, and *Magyar Narancs* (Budapest), 9 April 2009, p.18.

4. Opportunities in the Times of Crisis

a. Subsidiary evolution

While FDI inflows are in general contracting, some subsidiaries are expanding their activities. The growth and evolution of subsidiaries in new EU member states can be split into two forms. Firstly, there is a conventional evolutionary path of subsidiary whereby the functional scope is being increased and competences are being enhanced. The global economic crisis does not seem to hamper such development for certain subsidiaries. Secondly, the global economic crisis provided new opportunities for new EU member states. By capitalising on their competitive advantages such as lower costs of workforce, flexible tax regimes and geographical proximity to important markets, these countries strengthen their investment attractiveness and competitive positions. We shall consider these two scenarios in more detail.

The organic growth of certain subsidiaries continued in the times of crisis. A case in point is the Czech subsidiary of Honeywell, a major U.S. MNE producing a variety of consumer products, engineering services, and aerospace systems. In December 2008 it announced its intention to build its own research centre for aircraft engines over three years. The company intends to expand production of aircraft-engine components in Olomouc and is planning to hire 400 additional engineers for its R&D lab in Brno. Honeywell plans to transfer a total of 700 jobs from its aircraft-engine production operation in Phoenix, Arizona, to the Czech Republic and Mexico. Moreover, the company also wants to expand its development centre in Brno, where it tests various types of turbine engines. When this process is complete, the company's most comprehensive testing centre for new-generation turbine engines will arise in the Czech Republic and employ 1100 people. This is a case whereby a subsidiary is moving from a pure export platform status towards elements of a product mandate.

As this example shows, the subsidiary evolution was boosted by the transfer of some functions from its sister subsidiary in the U.S. In another scenario, MNEs prefer to rationalise their production structure in the European Union. Benefiting from the advantages of the Single European market, they might downsize their production in more expensive locations and transfer the production eastwards. In fact, the global economic crisis only accelerated such trend that started much earlier. In the past, Republic of Ireland used to be quoted a prime example of the country that has benefited from the European integration and large FDI inflows, serving as a gateway to Europe, primarily for U.S. MNEs. The "Celtic Tiger" was a model for many Central and Eastern European countries in their transition process (cf. Acs et al, 2007). As the global economic crisis unfolds, however, Ireland itself also faces major macroeconomic problems, as well as a partial loss of its export platforms. This movement in turn can benefit certain new EU member states. For example, the U.S. PC giant Dell decided to move its manufacturing operations from Ireland's Limerick to Poland's Lodz, at the expense of nearly 2,000 jobs in Ireland. This move concerns all production of goods bound for customers in Europe, the Middle East and Africa (EMEA). Dell cites simplifying operations, improving productivity and reducing costs as the main reasons for this relocation.

This job loss for Ireland was compensated though by retaining its advanced, higher value added operations at the Limerick campus. Limerick is also home to a number of Dell's key European functions, which include its Centre of Competency for Communications and Network Product Development. The centre includes an R&D capability to develop software solutions for Dell's manufacturing sites worldwide. This anecdotal evidence is consistent with the theoretical underpinning elaborated in previous sections: while a decision to relocate assembly or manufacturing activities may be relatively straightforward and based on the cost-benefit analysis, a decision to relocate R&D functions may not be that easy.

b. Shared services centres

As elaborated in the Section 2, the impact of the global financial crisis has been strongly felt in the automotive industry. Its impact, however, has been moderated in other industries. A case in point is shared services centres. For example, since early 2000s, new EU member states started emerging as prospective locations for Business process outsourcing (BPO), a form of outsourcing that involves the contracting of the operations and responsibilities of a specific business functions (or processes) to a third-party service provider, as well as off-shoring (near-shoring) of corporate business functions. National investment agencies have been very enthused about this development and actively supporting it, since it reflects the national strategies of transformation towards the knowledge-based economy. As examples, we show below (Table 6) the most important centres located in Hungary until March 2009. Data show that the trend of locating shared services centres in the country started as early as in 2001, and it has intensified by now.

Table 6. Selected shared services centres in Hungary, March 2009

Firm	Year	Number of employees	Amount invested (€ million)
Tata Consultancy Services	2001	910	81.38
Diageo	2002	302	4.27
SAP	2002	310	3.63
Satyam	2002	60	15.44
Alcoa	2003	190	...
IBM ^a	2003/2005	945	8.48
EDS	2004	1 150	8.80
ExxonMobil	2004	900	14.47
Getronics	2005	510	4.32
InBev Business Services	2006	380	2.81
Morgan Stanley	2006	450	3.70
IT Services Hungary	2007	1 745	7.78
Vodafone	2007	746	4.95
Citibank	2008	302	1.11
Convergys	2008	282	1.30
3M	Plan
Alstom	Plan	160	...
Christian Dior	Plan
Total		9 342	162.44

Source: based on www.vilaggazdasag.hu/index.php?apps=cikk&cikk=264442 and www.vilaggazdasag.hu/index.php?apps=cikk&cikk=264759.

^a In March 2009, announced to add 290 more employees (www.itd.hu/engine.aspx?page=showcontent&content=09ibm0311).

Note: Total number of centres: 50, employees: 20 000 (www.itd.hu/engine.aspx?page=showcontent&content=09ibm0311).

The data show that the amount of foreign investment generated by shared services centres is rather modest (€162.44 million in total). By their nature, projects of this kind are less capital-intensive than manufacturing projects. A much more important indicator of success is the number of new jobs created, since they contribute to employment. Besides, these jobs are preferred to those in manufacturing/assembly, since they are more knowledge-intensive and require higher qualification.

The most important advantage of shared services centres in the context of the crisis is that they do not seem to be affected by the downturn. On the contrary, certain developments such as the devaluation of local currencies further increases the cost advantages located in the EU member countries. In Hungary, for example, data provided by the Hungarian Investment and Trade Development Agency (ITDH) reveal that despite the economic downturn, the country remains a prospective location for BPO and shared services centres. As mentioned in Table 5, in March 2009, IBM announced its decision to hire new staff for its data processing and operating system and network support centre in the Hungarian city of Szekesfehervar. This centre already employs 800 staff, and it plans to expand up to 1,000. The newly established job positions are almost exclusively highly qualified openings in the IT industry⁷.

In a similar move, Vodafone plans to build a new regional customer service centre in Miskolc, in Northern Hungary. The infrastructure and IT investments will be started 2009 creating 300 new jobs within 2 years. Important decision making factor was the favourable labour market, due to the high standards set by the University of Miskolc. This regional centre has the potential to service 'other Vodafone countries' in the area later on, in the similar fashion as the Budapest service centre is doing presently⁸.

Similar developments can be observed in Poland, another EU member state that has benefited from currency devaluation. Overall, the Polish Information and Foreign Investment Agency (PAIIZ) reported that in 2008 it concluded 56 investment projects worth almost € 1.5 billion, as a result some 15 000 new jobs were created⁹. As Table 7 shows, the highest number of new greenfield investment projects facilitated by PAIIZ in 2008 were in the Shared Service Centres category. They were responsible for the largest number of new jobs created. The Czech agency CzechInvest reported about a larger amount of mediated greenfield investment projects in 2008 (213 projects), however, with similar results – overall value of \$1.77 billion, and leading to creation of 14 600 new jobs. The agency underlines that around 4 000 newly created jobs are for university graduates.

Despite the global crisis, the projects of this type are on the rise. Early 2009, Poland witnessed establishment of a BPO centre by Indian company Zensar technologies in the city of Gdańsk. This € 1.8 million-worth investment project is to generate 350 new jobs (according to PAIIZ).

From the examples above, it can be concluded that investment projects in BPO and Shared Service Centres may at least in part offset the ravaging consequences of crisis in the manufacturing (and automotive industry in particular). These projects are, however, less capital-intensive, and require workforce with higher level of skills, competences and qualifications. Therefore, they cannot be easily considered in terms of employment opportunities for workforce laid off from manufacturing subsidiaries.

⁷ ITDH Press-Release on 06.04.2009. http://www.itdh.com/engine.aspx?page=showcontent_befekteto&content=09ibm0406

⁸ ITDH Press-Release on 06.04.2009. http://www.itdh.com/engine.aspx?page=showcontent_befekteto&content=09voda0406

⁹ PAIIZ 2008 Report. <http://www.paiz.gov.pl/index/?id=2f3c6a4cd8af177f6456e7e51a916ff3>

Table 7. New investment projects in Czech Republic and Poland, 2008

Industry	Number of projects	Number of jobs created	Amount invested
<i>Czech Republic</i>			\$ million
Production	79	7 255 (356)	1 565.16
R&D	76	750 (481)	113.95
Services	53	6 601 (3 114)	94.94
<i>Total</i>	<i>213</i>	<i>14 600 (4 000)</i>	<i>1 770.0</i>
<i>Poland</i>			€ million
Shared Service Centres	21	5 251	38.5
Automotive	13	3 220	433.5
Electronics	4	1 914	29.0
R&D	4	225	1.9
Chemical	3	235	20.0
<i>Total</i>	<i>56</i>	<i>15 000</i>	<i>1 500.0</i>

Sources: PAIiIZ Press-Release

<http://www.paiz.gov.pl/index/?id=2f3c6a4cd8af177f6456e7e51a916ff3>

CzechInvest Press-Release <http://www.czechinvest.org/en/investments-in-2008-services-surpasses-manufacturing-for-the-first-time>

Note: only investment projects facilitated by respective national investment promotion agencies – CzechInvest and PAIiIZ.

Indicated in brackets – number of jobs for university graduates

5. Policy Implications

The FDI downturn has a major impact on government policies. From a practical point of view, governments are faced with massive lay-offs and a shrinking tax base. As FDI inflows are declining, and some foreign MNEs are even divesting, people are losing their jobs at foreign subsidiaries, and fiscal revenues are dwindling, there is a pressure on host-country governments to compete more efficiently and more aggressively for their part from a shrinking cake. In turn, the pressure on home country governments is to save jobs at home, by convincing their MNEs to cease activities abroad and repatriate jobs to the home base. In a broader context, governments across the world need to implement structural reforms aimed at ensuring more stability in the global financial system and strengthen macro-economic foundations, which in turn can have a positive impact on FDI policies.

In many countries, economic performance needs a “quick fix”. The temptation to recourse to protectionism and economic nationalism is high. In this respect, there is a certain asymmetry between the bargaining power of home and host countries: the former are headquartering the company centres in charge of the decision making process; they can also influence the behaviour of parent firms by fiscal measures. Compared to them, host countries competing with each other have weaker bargaining position, as a firm ceasing activities and leaving a country cannot be pressured the same way as a parent company.

Effective FDI policies require measures that avoid “beggar-thy-neighbour” solutions. Public policy responses - at both the national and international levels in dealing with the financial crisis and its economic consequences – need to aim at creating favourable conditions for a relatively quick recovery in both FDI flows and economic growth. In a broader context, the challenges are to restore the credibility and stability of the financial system, to provide the “right” stimulus to investment, and to renew the commitment to an open economy. In the context of investment promotion, the challenges are to find new priorities (for example, replacing the automotive industry), and new measures (including a rethinking of the system of subsidies which in the current form has been to little avail in stopping job losses). In general, investment promotion has to keep up with the changes of the global FDI landscape: as most of the FDI these days takes place in services, investment promotion agencies should pay more attention to job creation in these activities.

So far, the direct impact of the crisis on the policy and legal environment for FDI has been limited, with the exception of calls for more economic patriotism by certain countries, such as France, at the expense of export platform locations in developing and transition economies.¹⁰ It is not yet clear at this juncture yet if these calls become policies, or intra-EU solidarity will be strong enough to stop them. For the moment being, most governments show commitment to FDI promotion, and implement policies to foster investment and nurture innovation. There are also concerns regarding the implications of the new policies of nationalisation and State control, as well as of signs of rising protectionism, for global capital flows.

Today, it is widely acknowledged that public policies are to play a major role in the establishment of favourable conditions for a quick recovery of FDI flows. For the Governments of both developed and developing countries, it is important to maintain an overall favourable business and investment climate. If protectionism spreads, it can easily lead to an increasingly “lose-lose” situation in the middle of the crisis. In this regard, investment promotion agencies can play a proactive role in both retaining existing MNE activities and stimulating new investments.

¹⁰ In the case of the transfer of activities by Renault from Slovenia back to France in March 2009, it was not clear whether it was a first case of “reverse relocation”, as at the same time, other activities were expanded in Slovenia.

One has to ask if in the countries in transition in particular policies to attract FDI and benefit from it have been sufficient and the right ones from the point of view of desirable outcomes and resistance to crises. The uneven record of FDI and the negative effects of the crisis indicate that there is a need for a stronger link better investment promotion and industrial policy. The relationship between the quantity and the quality of FDI needs to be better understood, especially in the context of the crisis.

While policies aimed at initial attraction of FDI flows (including investment incentives) have spread around the world, and to economies in transition in particular, policies targeting already established subsidiaries of MNEs remain rare. However, recent research (e.g. Costa and Filippov, 2008) emphasised that extension of FDI policy toward subsidiary development may be fruitful and bring benefits to the national economy. Subsidiary development should have a twofold goal: retaining foreign subsidiaries and contributing to their evolution. Naturally, this calls for the subsidiaries' embeddedness into national economic and innovation systems.

Focus on the existing subsidiaries in the time of global economic downturn may be a winning strategy. It is evident that in the current conditions it will become even harder to compete for new FDI flows. On the other hand, new investment may come from subsidiaries' reinvested earnings and expansion of operations, leading to investment multiplier and spillover effects in the national economy. Focus on foreign subsidiaries does not imply alienation of domestic firms or preferential treatment of subsidiaries. It is rather a set of policy measures complementary to the strategy of national economic development.

In many countries of the world, and in new EU member states in particular, the crisis should accelerate policies aimed at upgrading their production base to higher value-added activities, especially in the form of investment in knowledge and innovation, and support to R&D function of foreign subsidiaries. The case of Hungary is illustrative. Early 2009, National Development and Economy Minister (currently – the Prime Minister of Hungary) Mr. Gordon Bajnai announced the government's decision to offer support to companies to keep their R&D staff, particularly in the automotive industry¹¹. Later, the government announced its readiness to change its economic policy to offer incentives to foreign companies to set up bases in Hungary and restart the economy¹². These policies are supposed to protect the existing competences of foreign subsidiaries and to retain the qualified workforce.

¹¹ ITDH Press Release on 22.01.2009: http://www.itdh.com/engine.aspx?page=showcontent_befekteto&content=09news0122

¹² ITDH Press Release on 12.02.2009: http://www.itdh.com/engine.aspx?page=showcontent_befekteto&content=09news0211

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Annex 1 FDI inflows, by region and major economy, 2007 and 2008 (billions of U.S. dollars)

Region / economy	FDI inflows		
	2007	2008 a	Growth rate (%)
World	1 940.9	1 658.5	-14.5
Developed economies	1 341.8	1 001.8	-25.3
<i>Europe</i>	920.9	559.0	-39.3
<i>European Union</i>	864.0	544.9	-36.9
Austria	29.7	12.4	-58.2
Belgium	70.0	94.2	34.6
Czech Republic	10.6	10.9	2.6
Denmark	11.8	10.9	-7.8
Finland	12.4	-4.2	-134.0
France	158.0	126.1	-20.2
Germany	56.4	24.9	-55.8
Hungary	6.1	6.6	7.7
Ireland	30.6	-12.3	-140.2
Italy	40.2	13.3	-66.9
Netherlands	118.4	-3.5	-103.0
Poland	23.0	16.5	-28.0
Romania	9.9	13.3	34.1
Spain	68.8	65.5	-4.8
Sweden	22.1	40.4	83.1
United Kingdom	196.4	96.8	-50.7
<i>Other developed economies</i>			
United States	232.8	320.9	37.8
Japan	22.5	19.0	-15.6
Developing economies	512.2	549.1	7.2
<i>Africa</i>	53.5	72.0	34.7
Egypt	11.6	9.5	-18.0
Morocco	2.6	2.0	-20.5
South Africa	5.7	9.0	58.0
<i>Latin America and the Caribbean</i>	127.3	139.3	9.4
Argentina	5.7	7.3	27.9
Brazil	34.6	45.1	30.3
Chile	12.6	16.8	33.5
Colombia	9.0	10.6	16.7
Mexico	27.2	18.6	-31.6
Peru	5.4	4.1	-24.8
<i>Asia and Oceania</i>	331.4	337.8	1.9
<i>West Asia</i>	71.5	61.4	-14.2
Turkey	22.0	18.0	-18.4
<i>South, East and South-East Asia</i>	258.7	275.2	6.4
China	83.5	92.4	10.6
Hong Kong, China	59.9	63.0	5.2
India	25.1	46.5	85.1
Indonesia	6.9	8.3	20.4
Malaysia	8.5	8.0	-5.6
Singapore	31.6	22.7	-28.0
Thailand	11.2	10.1	-10.2
South-East Europe and the CIS	86.9	107.6	23.8
Russian Federation	52.5	70.3	34.0
Ukraine	9.9	10.7	8.1

Source: UNCTAD, 2009. a - Preliminary estimates. **Note:** World FDI inflows in 2008 are projected on the basis of data for 103 economies for which data were available for part of 2008 as of 6 April 2009. Data for which only part of 2008 were available were estimated by annualising the data. The proportion of inflows to these economies in total inflows to their respective region or subregion in 2007 is used to extrapolate the 2008 data.

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