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The Role of Multinational Companies in International Business Integration

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The Role of Multi-national Companies in International Business Integration

Contents

List of Tables and Figures

Summary

This paper looks at the changing role of the EU-27-based multinational companies in the global economy as compared with the main regions of the world. It makes conclusions reflecting on the framework conditions of various global development scenarios defined in the framework an international research project of the Seventh Framework Programme of the EU, 'AUGUR' (http://www.augurproject.eu/). First we summarize the findings of recent research on corporate internationalization and international sourcing strategies. Then we turn to the analysis of FDI balance of payments statistics, mainly change in stocks by main regions and by main economic activities. We distinguish between the two main forms of foreign market entry of investors, M&A and greenfield investments. For greenfield investment projects we keep track of the number of investment projects, investment value and business activity. Based on available data we prepared a ten-year projection for the 2010s revealing possible future shifts in the power relations between various parts of the world in terms of FDI and corporate development. The findings are summarized based on four different international integration scenarios prepared in the framework of the AUGUR project.

Keywords: *FDI, multinational companies, global development scenarios, EU integration*

JEL classification: *F21, F23*

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1 Introduction

Multinational companies (MNCs) have been engines of global economic development, technological transfer and deepening globalization. They have grown not only within their domestic corporate framework but also by setting up new subsidiaries in host economies and by purchasing subsidiaries through mergers and acquisitions (M&As). This paper looks at the changing role of the EU-27-based MNCs in the global economy compared with the main regions of the world. It makes conclusions reflecting on the framework conditions of the AUGUR Scenarios[1], a set of macroeconomic and financial scenarios for the world up to 2030. We analyse data according to the AUGUR Blocks of countries (see Appendix for definition), if not applicable, by main regions of the world. In the historical analysis we concentrate on the past twenty years up to the recent great recession and make some extrapolations.

The main research questions are:

- How have the vertical specialization and corporate network position of MNCs changed in the past two decades?
- How have corporate strategies of internationalization changed – have networks become more global or more regional?
- What has been the role of different entry strategies, M&As and greenfield investments, in the expansion of MNCs?

In order to answer these questions we discuss information based on the following data sources:

- First we present the findings of previous research projects on corporate internationalization and international sourcing strategies.
- Second we turn to the analysis of direct capital investments in the most aggregate form: FDI balance of payments statistics, mainly change in stocks by main regions and by main economic activities – based on IMF and Eurostat data for 1990-2009.
- Then we distinguish between the two main forms of foreign market entry of investors, M&A and greenfield investments. Cross-border M&A development over time expresses the changing intensity of corporate globalization while it also reflects fluctuat-

[1] See AUGUR Deliverable 1.4 (WP1), 'Updated historical data and scenarios', prepared in the framework of **AUGUR, 'Challenges for Europe in the world in 2013',** an international research project of the Seventh Framework Programme of the EU (http://www.augurproject.eu/). The website of the project explains further features and the development of the scenarios.

ing asset prices. For this the UNCTAD database on M&As was used which records the number and value of deals.

- For greenfield investment projects we tap the fDi Markets database of the Financial Times which keeps track of the announced greenfield projects: number of investment projects, investment value, business activity, motivation of investment, etc. Data are available for 2003-2010.
- The conclusions sum up the findings based on existing literature and our data analysis. We also develop some hypotheses concerning future development. Here we distinguish between the various AUGUR Scenarios.

2 Company concentration and aspects of corporate internationalization

Internationalization of business has been one of the main developments of the past twenty years. As a consequence, the corporate structure of the world economy in 2010 is quite different from what it was in 1990. The volume of world trade and especially of FDI expanded more rapidly than GDP. This growth was seldom interrupted by regional, sectoral or global setbacks. The global expansion of direct investment was supported by institutional changes facilitating freer movement of goods and capital between countries. The collapse of the Soviet Bloc made it possible that almost all countries in the world have been integrated into the global system of trade and FDI. Trade rose also due to production sharing between stages of production in corporate networks and between subsidiary structures.

International sourcing (also called *vertical specialization*), computed based on input-output tables as the intermediate import content of exports, grew in almost all of the investigated ten major exporting countries in 1990–2000 and mostly also until 2005, the latest year for which data were available (Gotart, Görg and Görlich, 2009). This paper identifies countries with relatively strong growth of vertical specialization from a low level such as Japan from below 10% in 1990 to over 20% in 2005, and also countries where vertical specialization declined such as in the UK from 25% in 1995 to below 20% in 2005. In those years, Japanese companies opened up production networks to cost saving imports from China and South-East Asia while the UK lost much of its manufacturing industry and specialized in services not covered by this paper. In general, the magnitude of international sourcing has been smaller in the case of larger countries: about 10% for the US, 30% for Germany, but close to 50% for the Netherlands and almost 60% for Ireland in 2005. For the EU as a whole the intermediate import content of exports is probably even lower than for the US.

The macro-level data presented above indicate that vertical specialization has been most intensive within larger trading blocks. Company data reveal that internationalization affected only a small part of the companies. *The vast majority of companies in most coun-*

tries do not trade internationally and even fewer of them invest across borders. The report on this subject by the research network European Firms and International Markets (EFIM) provides a systematic, cross-country, firm-level analysis of the features of European firms that competed in international markets in 2003 (Mayer and Ottaviano, 2007). It reveals that European firms involved in international activities are few in number but are bigger and more productive than other firms. In France, Germany and the United Kingdom 10% of the firms export more than 50% of their turnover and they account for 50-75% of total exports. Foreign-owned firms are more frequently exporters than domestic firms; firms involved in both trade and FDI are usually more productive than the rest of the firms in each industry. *In other words, exporting firms are more productive than non-exporters and multi-national firms are even more productive.* From another aspect, the relatively small number of internationalized firms is considered by Mayer and Ottaviano (2007) as the single most important constraint on European trade and FDI performance. They also show that this situation hardly changes over time; the increase of exports or of FDI is usually achieved by the same firms, rarely by new firms. The scarcity of exporters and investors increases with the distance to foreign markets; more difficult markets are exported to by fewer and larger firms and even more frequently by FDI firms. As rapidly growing markets have shifted to more far-away continents, the size of European companies will have to grow even more if they want to tap the emerging business opportunities.

Another research on firm-level concentration of FDI uses the Amadeus database for eurozone manufacturing companies in 2000 and 2004 (Geishecker, Görg and Taglioni, 2008). In 2004 only 3% of the more than two hundred thousand firms in the database had at least one foreign subsidiary. These multinational firms were larger and more productive than the rest; they employed 29% of the workforce and contributed 40% of the turnover and 43% of the value added. This means that multinationals were 65% more productive in terms of turnover per employee and those with more than one foreign subsidiary by another 15%. Among the target countries of investors France, Germany and the US were in the top places which together hosted one quarter of foreign affiliates. Significant destinations outside the eurozone included Poland, China, Brazil, Switzerland, Romania and Mexico with 2-3% of the affiliates. There were actually relatively small numbers of affiliates in emerging markets outside Europe. *Those few eurozone firms that invested in emerging economies concentrated their activity in large and high-growth countries.* Reference can be made here to the role of *distance and sunk costs* that are relatively high for entering countries with a lower level of development (Helpman et al., 2004). This explains the specific obstacles companies have to cope with when doing business on far-away markets. For success they need a larger capital base and superior productivity.

In a follow-up project to EFIM, the EU-EFIGE (European Firms in a Global Economy) project addressed the link between firm characteristics and internationalization (Navaretti et al., 2010). Based on 2008 data collected in a new survey of companies in EU countries,

the paper came to the conclusion that firm characteristics are more important than country characteristics in explaining exports and FDI. Firms of larger size and with a more skilled workforce are more innovative and export more than others. They do so from any country and whatever industrial sector. *Export strategies of large firms usually include direct investments in the target countries.* This is especially true when penetrating more difficult and distant markets such as the BRICs. Here size matters even more than in the case of nearby and easy markets including the new EU member states. As to host country characteristics, if they are very difficult for exporters, these need to be present with production subsidiaries. This aspect is found most significant for companies entering China and India. As to the home country environment, if companies are hindered in their efforts to move production abroad, they may also be hindered in growth and competitiveness. Finally, *not all large companies succeed* in investing abroad; it is their organizational efficiency that determines whether they can be dynamic enough to take up new challenges.

Company concentration and growth are also linked *in the case of multinationals from emerging economies where growth is often the core element in corporate strategies*. In 2005, 35 businesses from emerging markets were among the 'Forbes top 500 companies'; in 2010 that number was already 64 (Ernst & Young, 2010) and most of these companies were located in the BRICs. They financed growth mainly from retained profits and reserves thus maintaining financial independence in countries with underdeveloped capital markets and at times of expensive credit. Most of the early growth of emerging market multinationals was home market based and rarely involved the acquisition of assets in developed markets. High economic growth supported the growth of domestic companies which in turn invested into more growth. At a later stage the largest companies also started to invest abroad. In the past ten years *both the number and the value of foreign assets of MNCs from developing countries increased more rapidly than from developed countries, albeit from a low base.* As pointed out in subsequent sections, foreign subsidiaries of MNCs from emerging economies are low in number but increasing.

3 Trends in international sourcing---

Another string of literature investigates trends in outsourcing to foreign firms or to affiliate enterprises abroad. Shifting jobs to lower cost locations is a driver and simultaneously the result of globalization. The phenomenon of *international sourcing* has a variety of labels and terms often used without explicit definitions: off-shoring, near-shoring, delocalization, relocalization, outsourcing, insourcing. International sourcing occurs both from affiliated and non-affiliated enterprise. Of these the former involves FDI while both forms boost international trade. We rely on the definition of international sourcing and related data collection initiated by EUROSTAT (Alajääsko, 2009). Based on the *results for 12 European countries* and enterprises with 100 or more employees between 2001 and 2006 the following trends have been identified:

- 16% of enterprises surveyed moved some of their business functions abroad, i.e. were engaged in international sourcing. This activity was most common among Irish and British companies (one third of the companies outsourced internationally) as well as Danish, Finnish and Slovenian companies (one fifth to one quarter). Most of the large member countries such as Germany, Italy and Spain had much lower than average intensity of international sourcing.
- Among those companies that were not engaged in international sourcing in 2001-2006 only 4% planned to do so in 2007-2009. Thus international sourcing activity may not have become very much more wide-spread in subsequent years; the majority of companies did not think of international sourcing and relied only on domestic networks.
- The destinations of international sourcing of the twelve countries were to 45% other EU countries (intra-EU-27 out-sourcing). The share of the EU was lower for Germany (40%) which sourced relatively much to China, for the UK which relied much on the US, as well as for Slovenia relying on other European countries (Western Balkans). High concentration on EU-27 sourcing (above 60%) was found in Sweden, the Netherlands, the Czech Republic and Norway. Intra-European sourcing was more important for smaller countries than for large ones. Other main destinations of sourcing beyond the EU were China and India which had a combined share of 20%. The highest share, around 30% was measured for Germany, Denmark and Finland. The US held a share of about 15% and other European countries 10%.
- Manufacturing enterprises sourced far more than enterprises active in other sectors of the economy, 23% on average (against 16% for all activities). Well over 50% of Irish and British manufacturing enterprises participated in this process, and over one third of Danish manufacturing enterprises. Germany, the Netherlands and Italy were just below the EU average. On the one hand, manufacturing companies of smaller countries sourced more than others, on the other hand, Anglo-Saxon countries sourced more than Germanic.
- The main motivation for moving functions abroad was to benefit from a reduction in labour costs (45% of enterprises – multiple answers possible) followed by access to new markets and strategic considerations (about 36% each). These reasons often went together. As to the positive impact expected from international sourcing, to increase competitiveness (65%) and to access new markets (46%) were most often measured together.
- The main barrier to international sourcing was identified as the distance to clients and to suppliers both physical, legal and culturally. This is the reason why international outsourcing stays mostly within Europe. Barriers could be overcome only if the expected efficiency gain or benefits from market access were higher than related costs.

The above results of international sourcing of EU firms support the conclusions delivered by the EFIGE research namely that international activity is not very widespread among

companies and that sourcing is more regional than global. Company plans surveyed in the framework of the project did not indicate any major future changes in these respects either.

There are no comparable data of international sourcing in other parts of the world. Surveys done in various countries differ by the size of the interviewed companies and also as regards what they defined as international sourcing. A spring 2010 survey (Capgemini, 2010) involving 300 of the largest US companies engaged in outsourcing (no information is given as to the proportion of outsourcers in the total number of large companies) reveals that a high share, 77% of their outsourcing activity is international. The most important outsourcing destination is India used by 60% of the surveyed companies. It is followed by China with 27% and Latin America (excl. Mexico) with 25%. Other Asian countries are less important with 16% just like Western Europe with 14%, Canada (12%) and Mexico (9%). The main reason for outsourcing is identified as labour cost reduction, but it is also acknowledged that always the total cost of outsourcing matters when companies make a decision. Taking all factors into consideration, international sourcing may not be all that advantageous due the cost related to establishing and managing sourcing networks.

Controlling the supply chain to prevent interruptions is found to be a cumbersome task and bad experience has already caused the *return of some outsourced businesses* (Capgemini, 2010). High flexibility in the magnitude of sourcing and fluctuating costs have advantages and risks alike. The outsourcing activity of the surveyed companies expanded in the 1990-2007 period. In early 2008, high fuel prices and rising transportation costs drove many sourcing deliveries back from far-away destinations. Later the substantial drop in demand for products in the US, sourcing was abandoned and high overhead costs made companies to close factories. It is expected that a lasting recovery of business can result in re-employing suppliers abroad. But if shipment costs also rise again *near-shoring may be preferred to far-shoring*. This is the reason why for US firms the closer Latin American destinations are in coming. There can be also other advantages of near-shoring untapped earlier, e.g. compared with China where problems have emerged related to intellectual property protection. This is a reason why mainly low technology components are outsourced even if skills would be adequate for more technology intensive production.

Another recent survey (Grant Thornton, 2009) reveals that three-quarters of the major U.S. companies source internationally and the majority of them have made changes or are planning to make changes to alter supply chains to source closer to home. These changes are being driven by considerations other than simple cost calculation, such as supply chain resiliency and responsiveness. Thus more numerous and more complex variables enter into the decision over supply chain.

IT outsourcing (ITO) and business process outsourcing (BPO) are the two main areas of services outsourcing for which distance does not matter all that much in terms of transport

cost but only in terms of management costs while unit labour cost is the decisive location factor. In the mid-1990s, relocating services by European firms targeted cities within Western Europe such as Dublin, Brighton or Barcelona (Morrison, 2010). But as costs have increased, the most popular location shifted first to Central European cities such as Prague and Budapest, and lately further east to locations in Bulgaria and Romania. Meanwhile also smaller West-Balkan countries have taken some share of the market. As this process of development and saturation of locations continues, progressing beyond Europe's eastern and southern borders can be the next step.

In global terms, India is the main supplier of outsourced services having an advantage in language skills, technical skills and price. But other locations are catching up. India had 68% of the global IT outsourcing market in 2005 which fell to 42% in 2009 (Morrison, 2010). Most recently offshore services shifted to China and Brazil, and also to Egypt and South Africa, to countries with expanding economies, where high local demand and exports can be served together. Still very few European or global businesses have significant back office operations in China, and when they do, almost all focus on regional, Asia-Pacific operations. Morrison (2010) opines that the Chinese government is investing in infrastructure and language skills which will encourage both local and foreign companies to invest in services outsourcing.

In another approach, looking only at the *likely post-crisis development*, Gotart, Görg and Görlich (2009) present two views. The optimistic one forecasts a return to business as usual after the crisis, meaning that international sourcing will recover together with world trade; exporters of finished goods will rebuild their production networks which were dismantled during the crisis. The more cautious view expects world trade to recover with less international sourcing than before the crisis due to the important fixed costs associated with rebuilding lost networks. With lasting recovery, production and trade networks may be rebuilt despite fixed costs but in less remote locations.

Both the European and the US survey results outlined above underscore the limits to international sourcing and further global integration of business processes. Results for recent years reflect the impact of the demand squeeze in developed countries and the high fuel price prior to the crisis and expectations that high prices will soon resume. Companies seem to have learned some lessons of the global expansion of sourcing and sophisticated supplier networks and came to the conclusions to curtail their engagements especially what concerns sourcing from distant suppliers. Differences between company strategies can be rather big, thus sourcing decisions may go into juxtaposing directions.

Geographic shifts also influence global sourcing trends as put forward by the investigation conducted by the McKinsey Global Institute (Braga, Erdmann, Malik, and Satpathy, 2009). The authors draw attention to the dynamic nature of cost competitiveness which brings

new locations on the map of global sourcing, e.g. Vietnam partly replaces China for labour intensive products. Also regions within large countries are competing for new orders. At the same time not only rich and high cost countries outsource but also developing countries which are going up the wage ladder. As a consequence the volume of global sourcing may further increase driven by companies from emerging economies. *Shifts will favour closer destinations, and an intensification of sourcing may go on within regions especially in Asia.*

4 Shifts in outward and inward FDI stocks and Europe's position

International business development can be tracked on the macro-economic level by FDI stocks and flows. Change in stocks is preferred to more volatile flows when highlighting long-term developments[2]. *The global outward FDI (OFDI) stock grew* from USD 2 trillion in 1990 to USD 19 trillion in 2009; 3.8 times between 1990 and 2000 and another 2.4 times between 2000 and 2009. The highest point was reached before the crisis in 2007 marginally above the 2009 level. OFDI growth had two interruptions in the past 20 years: one around 2002 related to the 'dotcom crisis' and one in 2008 related to the financial crisis. These events caused the most severe setback in the USA, but also in Europe while China and Hong Kong were affected only at the beginning of the 2000s and much less by the recent crisis.

Looking at the *regional distribution of OFDI*, one finds that there is a *strong concentration* in a few large and advanced home countries of MNCs. There has been just a bit of a shift to high growth emerging countries recently. This phenomenon was underlined among others by Nunnenkamp (2010): 'The ranking of all 161 economies (in terms of FDI) that UNCTAD lists under 'developing economies' has hardly changed since 1990. A simple correlation exercise based on FDI stock data in 1990, 2000 and 2007 results in extremely high Spearman rank coefficients of 0.83 (1990 vs. 2007) and 0.94 (2000 vs. 2007)'. It has been the same countries dominating world FDI and the shift to new locations has been slow.

The major change of the global FDI location in the past 20 years took place due to the European transition economies which were previously not hosts and homes of FDI. They also contributed to a growing regionalization of EU related FDI both inward and outward. In the following we rely on 1990-2009 OFDI data to see how much and for which AUGUR Block did the importance of direct investments grow (Figure 1). (Further below we shall use a different country grouping and also separate intra-EU FDI from extra-EU FDI.)

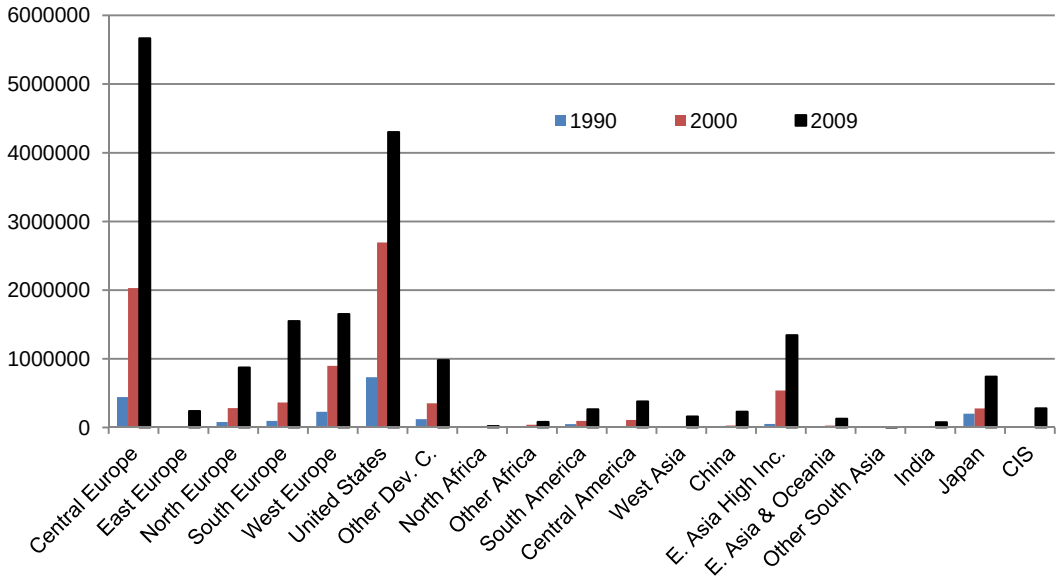
Among the AUGUR Blocks the leading regions of OFDI are Central Europe (comprising countries from the Netherland through Germany to Austria) with the highest amount in

[2] According to the IMF balance of payments manual, FDI stock is not calculated as cumulative flows but based on annual company surveys. Stocks reflect changes in the valuation of listed companies and are subject to exchange rate developments.

2009 and rapid growth through the 20 year period followed by the US characterized by slower growth. Next is a group comprised of South Europe, West Europe and High Income Asia among which South Europe had the strongest growth. The third group is comprised by Other Developed Countries, North Europe and Japan. By these groups all the developed countries are covered while the rest of the world regions have received relatively small amounts of FDI. But the latter grew stronger especially in the 2000s (notably the CIS, West Asia and East Europe), than the developed regions.

Figure 1

FDI outward stock of AUGUR Blocks, 1990, 2000, 2009, USD million



Source: UNCTAD, World Investment Report, 2010.

Based on an *extrapolation* using the growth rate between the 1990s and 2000s for the next decade, *the losing regions are first of all the US and Japan; the gaining regions are Central Europe and South Europe as well as East Asian High Income Countries and Latin America.* Specific for the past decades was that the CIS and East Europe have just emerged as investors and their OFDI grew at a high rate, thus extrapolating their growth rates to the next decade results in unrealistically high future levels of FDI. It is also worth noting that *China has been very slow in gaining shares in the global FDI stocks thus its share will hardly grow by extrapolation*.

The value of OFDI stock increased a lot more than global GDP. *Outward FDI stock per GDP* reveals how intensely an economy and the comprising companies are involved in active FDI. The advantage of this indicator to pure stock data is that it controls for the size and development level of the regions. OFDI/GDP of the world went up from 10% in 1990 to 25% in 2000 and 33% in 2009. The highest level, 35% was reached in 2007 followed by a setback in the crisis year and some recovery more recently. For the *performance by world*

regions we use the UNCTAD classification of countries to observe the EU as one block and to treat China and Hong Kong together (Table 1).

The joint OFDI performance index of the 27 current EU member states, increasing from 11.3% in 1990 to 41.4% in 2000 and 55% in 2009, has been higher than the world average. It rose especially strongly in 2009 when economic growth was sluggish. North America's indicator was higher than of the EU in the 1990s but did not increase much in the subsequent 10 years. *The recent financial crisis has set back the value of US OFDI stocks much stronger than European.* As seen also in the case of nominal stock data, the relative decline of the US FDI is one of the most significant changes since 2000. Japanese OFDI (included in 'Other developed countries'), on the other hand, remained around 7% of GDP in 1990-2000 and increased to 15% in 2009.

Table 1

Outward FDI stock as a percentage of GDP by UNCTAD regions, 1990-2009, %

	1990	1995	2000	2005	2008	2009
World	10.0	12.2	25.2	27.6	26.8	33.2
European Union	11.3	14.5	41.4	41.9	44.1	55.0
Other developed Europe	21.4	35.1	62.7	78.2	93.0	110.2
North America	12.8	18.7	27.9	29.8	23.0	31.2
Other developed countries	6.9	5.2	7.5	11.4	15.8	18.2
North Africa	1.0	0.9	1.3	1.2	3.2	3.9
West Africa	2.5	7.9	8.5	4.9	3.6	4.4
Central Africa	1.5	3.3	3.5	1.5	1.3	1.7
East Africa	1.0	1.7	1.7	1.8	1.4	1.6
Southern Africa	11.1	13.8	20.1	12.5	12.9	16.8
South America	6.4	4.6	7.3	8.9	8.6	9.3
Central America	2.4	3.0	3.0	5.1	6.1	8.3
Caribbean	11.5	67.8	293.9	371.6	437.6	564.2
West Asia	2.1	1.9	2.5	4.2	7.4	9.7
East Asia	5.4	8.8	22.9	18.5	20.1	22.2
South Asia	0.1	0.1	0.4	1.0	3.5	4.3
South-East Asia	2.8	7.7	15.1	19.7	23.1	25.2
Oceania	6.4	7.4	10.1	5.6	4.8	5.2
South-East Europe	..	3.2	3.4	3.0	5.7	7.1
CIS	..	0.8	6.2	15.5	10.2	17.0

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

In East Asia most of the increase of OFDI/GDP took place in the 1990s and stagnation has set in more recently. The amount of investments increased rapidly but so did GDP. The emergence of China as a global investor has not led to any significant OFDI intensity of that country yet; it merely increased from 1% to 5% of GDP within 20 years and most of this came in the past five years. Much of the Chinese OFDI is done via Hong Kong for

which the indicator increased from 15% in 1990 to 230% in 2000 and 396% in 2009. In nominal terms, the OFDI of Hong Kong was USD 388 billion in 2000 while that of China only USD 27 billion. The amounts came closer to each other in 2009 when Hong Kong reached USD 834 billion and China USD 230 billion. South-East Asia has been quite active in FDI lately with OFDI/GDP increasing throughout the past 20 years and reaching 25% in 2009. In South America the OFDI performance of Brazil did not increase from about 10% in the past 20 years while that of Chile went up from 0.5% to 25%.

Small but internationally significant financial centres such as Hong Kong invest more than their GDP (OFDI/GDP above 100%); this is also the case in the Caribbean region (mainly Cayman Islands and Virgin Islands) and Switzerland ('Other developed Europe'). There are several such countries also in the EU, such as Luxemburg, Belgium, the Netherlands and the United Kingdom.

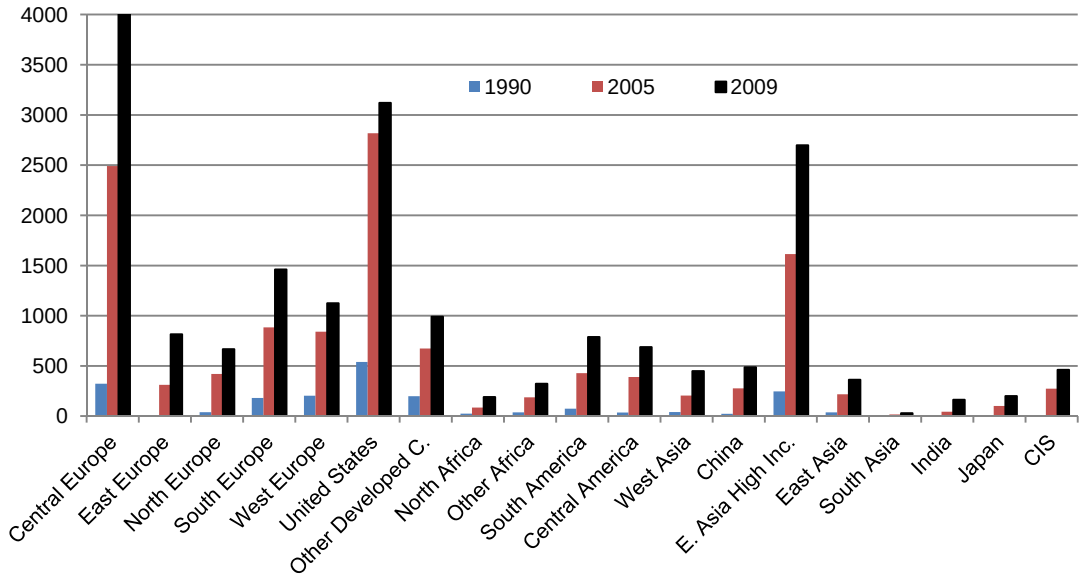
As to the speed of change in 2000–2009, global FDI stock per GDP increased by 32% and so it did for the EU-27 leaving the position of the EU intact. The FDI performance of North America increased less than the World average while of Other Developed Europe increased more. The highest pace (three-fold or more) of increase in OFDI/GDP in the 2000s was registered in South Asia (10 times, mainly of India) followed by West Asia (3 times, mainly due to the oil exporters). Growth of more than two-fold took place in 'Other developed countries', North Africa, Central America, South-East Europe and the CIS. Regions with slow development were the poorest regions of the world: West Africa, Central Africa, East Africa and Oceania. Based on these data we can confirm *a regional redistribution of FDI growth from the US to emerging economies noting that this can have temporary character* and the US may recover if its currency strengthens.

As to **global inward FDI** (IFDI) it must be noted first of all that it is lower than the outward FDI intensity due to reporting reasons (Figure 2). Basically the main recipients of IFDI are the same as the most important investors (West Europe and the US) which indicates that the largest part of FDI takes place between the developed countries. But *the inward FDI of developed countries is usually lower than their outward FDI and in addition there are a number of developing countries* which are significant receivers of FDI. Among the latter the highest FDI receivers have been the AUGUR Blocks of South-East Asian High Income countries.

Turing to *inward FDI stock per GDP of the UNCTAD groups* of countries, some developing regions have especially high indicators, such as South-East Europe, Central Africa, South-East Asia, and the Caribbean islands (Table 2). The IFDI performance of these regions increased over the past ten years. Higher than average increase was reported also for the EU-27 and 'Other developed Europe'. East Asia almost stagnated while South Asia and West Asia registered very fast growth.

Figure 2

Inward FDI stock of AUGUR Blocks, 1990, 2000, 2009, USD million



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Table 2

Inward FDI stock as a percentage of GDP, 1990-2009, %

Region / economy	1990	1995	2000	2005	2008	2009
World	9.8	11.4	23.3	25.4	25.4	30.7
European Union	10.6	12.5	27.5	34.1	36.4	45.5
Other developed Europe	13.0	16.1	27.6	36.7	57.6	66.4
North America	10.2	14.2	28.6	23.4	19.0	23.4
Other developed countries	2.8	2.9	4.1	7.8	10.0	10.5
North Africa	12.6	16.2	17.4	22.9	27.5	32.5
West Africa	16.5	33.7	39.7	29.3	28.0	35.5
Central Africa	9.8	15.0	19.8	29.5	29.5	41.5
East Africa	4.2	6.3	14.4	17.7	19.4	20.3
Southern Africa	11.7	14.2	36.9	33.0	24.1	40.3
South America	9.8	9.3	23.4	26.3	21.6	27.6
Central America	9.7	14.3	17.7	25.9	28.3	36.2
Caribbean	13.4	14.2	81.5	99.8	152.4	187.5
West Asia	8.8	8.5	8.8	15.6	17.9	25.6
East Asia	25.9	21.0	31.7	26.0	22.8	25.4
South Asia	1.3	2.6	4.2	6.1	8.9	11.2
South-East Asia	18.2	22.6	44.5	44.7	43.3	46.3
Oceania	24.9	22.5	29.9	26.3	35.5	44.1
South-East Europe	..	2.7	14.1	27.8	42.1	52.8
CIS	..	2.1	15.7	25.0	16.3	25.3

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Going into more detail of the EU's position in global FDI, *we separate the intra-EU FDI from the extra-EU OFDI of the Union* based on *EUROSTAT data*. The first year for which data for the EU-27 are available is 2004 when the outward FDI/GDP was 22%, followed by a sharp increase to 27% in 2008 and 31% in 2009. (The latter is not only due to increasing FDI stocks but also to declining GDP.) For a longer time series and more detailed composition we rely on EU-15 data which are available for 1998 through 2009 to see whether outward investment stocks have diversified geographically or remained within Europe (Table 3).

Table 3

Outward and inward FDI stock/GDP of the EU-15 by continents, in %

(Total outward 1998: EUR 1668 billion, 2009: 9536 billion; inward 1998: EUR 1467 billion, 2009: 8306 billion)

	Outward		Inward	
	1998	2009	1998	2009
Intra EU-15	49.4	57.3	45.9	66.2
Extra EU-15	50.6	42.7	44.1	33.8
of which North America	26.1	13.5	26.4	14.0
Central America	2.3	4.1	1.8	4.9
South America	4.9	2.5	0.1	0.8
Asia	4.9	5.8	3.7	3.7
CIS	0.2	1.6	0.1	0.5
Other Europe and RoW	12.2	15.2	11.9	9.9

Source: EUROSTAT database, author's calculations.

EU-15 FDI stock (both outward and inward) increased 5.7 fold during 11 years and it increased to all continents. This increase was uneven which caused a shift between host regions. Most remarkably the share of mutual OFDI rose from 49% to 57%, and of inward FDI even more strongly, thus EU-15 FDI became relatively more regional than global. But annual data reveal that the regionalization took place up to 2000, since then the share of extra-EU OFDI stock has stayed at about 41-43%.

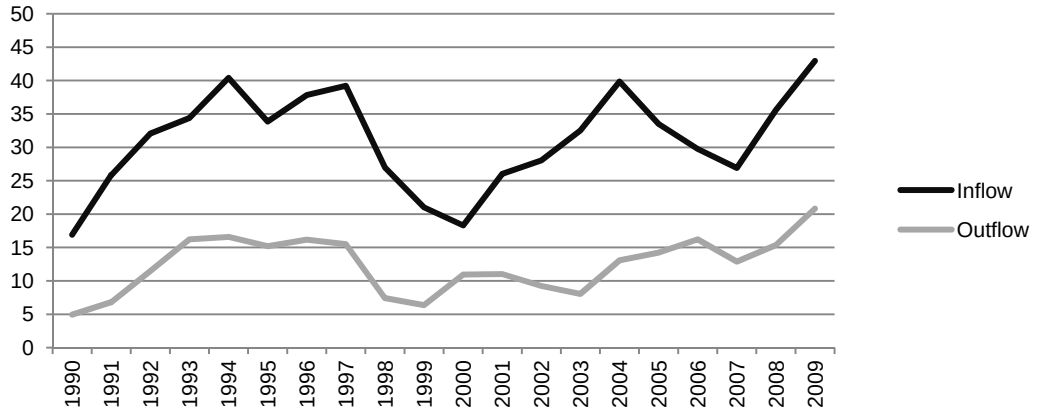
The share of North America in the EU-15 OFDI shrank to one half in 11 years which was the most significant change. Growing share, on the other hand, was booked for Other Europe comprising the CEE and EFTA countries which is another indicator of growing intra-European integration. As to the other continents, there was marginal gain for Asia and some loss in South America. A major increase outside Europe took place in the offshore financial centres reflected in the data for Central America. The shifts in the inward FDI stocks were quite similar but here the share intra EU-15 stocks have been larger and increased more rapidly, to two thirds of the 2009 stocks. Investments from outside the EU-15 recorded big decline from North America, some decline from Other Europe and slightly rising shares from other regions.

FDI data reveal further that the recent shift of global FDI to emerging economies has been modest and does not show a clear trend over decades. This can be demonstrated with *flow data for 1990-2009* (Figure 4). In times when global FDI was booming, the share of developing countries declined and when global FDI contracted, the share of developing countries increased. Up to recently the inflow share fluctuated between 20% and 40% and the outflow share between 6% and 16%. In 2009 when global FDI contracted a lot, developing countries' FDI was again more resilient and their share became higher than before. Still there is no reason to believe that developed countries would not regain their position once the crisis is over.

Outward foreign direct investment undertaken by multinational firms of emerging markets including the *BRICs is a rather new phenomenon*; it accelerated markedly with the beginning of the new millennium. Russia is the most important investor among the BRIC countries and a strong pick-up is also observable for China and India (Hunya and Stöllinger, 2009). Much less of an upward trend is discernible in the FDI flows of the BRICs directed towards the EU, with the important exception of Russia. The BRICs are only a minor source of FDI for the EU, accounting for, on average, only 5.5% of extra-EU inward FDI flows during the period 2002-2007. One important explanation for this pattern is that a major part of the BRICs' outward FDI, particularly of China and India, is *resource-seeking* directed predominantly to resource-rich countries of Africa, South America and Asia and not to the EU.

Figure 4

Share of developing countries in global FDI inflow and outflow, %



Source: UNCTAD, FDI database.

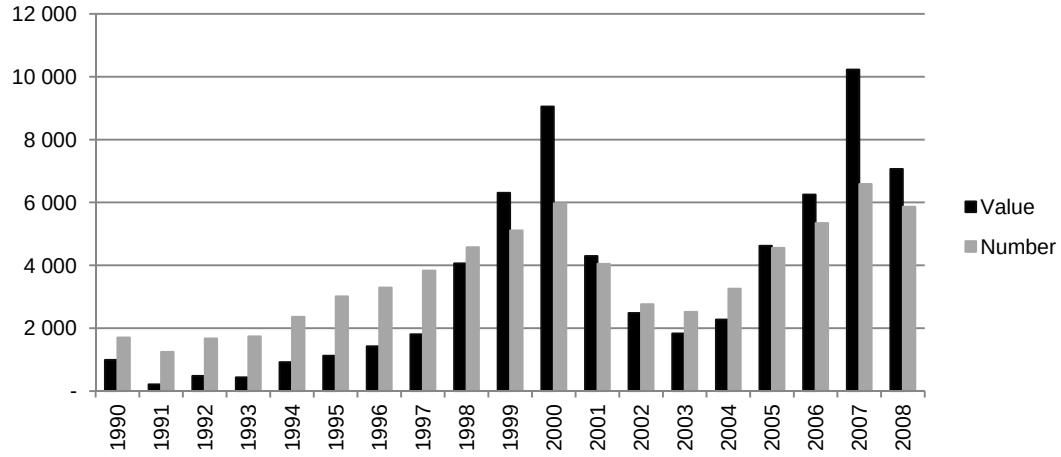
FDI inflows to emerging markets (Figure 4) increased in the 2000-2009 period most rapidly to West Asia, India and Russia and these are also the leading growth regions if the 2000s are compared with the 1990s. The losers in terms of inflow are the US, South America and East Asia. A simple extrapolation of the current trends would blow up these changes and lead to unrealistically high shares of the regions which had high growth in the past.

5 The landscape of multinational corporations: cross-border M&As

Multinational corporations (MNCs) have been the drivers of global development and globalization. They have grown not only within their corporate framework but also by setting up new subsidiaries in host economies and by purchasing subsidiaries through mergers and acquisitions (M&As). The amount of cross-border M&A over time not only expresses the changing intensity of corporate globalization but it also reflects fluctuating asset prices.

Figure 5

Global number and value (in USD 100 million) of cross-border M&A purchases



Source: UNCTAD, M&A database.

The value of cross-border M&A purchases and similarly the value of the sales have fluctuated over the past 20 years for which data are available (UNCTAD, TNC database; Figure 5). After slow increases in the first ten years, transactions skyrocketed rising 3.5 times in 1997–2000. In this period M&As were the major driving force of global FDI growth. In 2002-2003 both FDI flows and M&A fell back to the 1997 level due to the dotcom crisis. From here the value of M&As rose again, more than four times until 2007. Both the number of purchases and their value developed in the same way, but the project value fluctuated more than the number of deals which indicates that in the periods of economic upswing the asset prices rose very strongly while in the periods of decline they fell rapidly and so did the unit values of purchases.

The position of countries and regions in the cross-border sales and purchases of companies shows the intensity of MNCs' involvement in corporate globalization. A net purchasing position may denote economic power. At the same time, foreign takeover can increase productivity in the host region as the investor has mostly superior productivity compared with the targeted company.

The development of *M&A by the AUGUR Blocks* in *ten-year averages of M&A values by regions* shows a quite different landscape in the 2000s than in the 1990s. The share of Central Europe, the primary M&A purchaser, shrank from 41% to 26% and also those of the second most important purchaser, the US declined from 21% to 16%. The main gainers were also among the developed regions, Europe West (the UK, from 12% to 16%) and Europe South, as well as Japan, Asian Developed Countries and Other Developed Countries. Among the developing country regions, Central America's share shrank while of all other regions increased. Despite this development, the large emerging countries are still relatively insignificant purchasers even in the 2000s, such as China with 1.3% and India and South America with 1.1% each.

Turning to the *groups of countries as defined by UNCTAD* one can say more about the international position of the EU (Table 4, Figure 6). In the 1990s the EU became the dominant purchaser reaching two thirds of the global value of M&As (including intra-EU purchases). In the 2000s the EU remained the primary actor on the global M&A market but with declining share in the global turnover. North America (mainly the US) is the largest M&A purchasing region outside the EU. Its share grew between 2000 and 2007 to the expense of the EU. Other developed countries, first of all Japan, were very active in the late 1980s and again in some years when other countries did not purchase much.

Table 4

Value of cross-border M&A purchases of the world regions 1990-2008, % of total

	1990	2000	2007	2008
European Union	48.8	67.3	52.2	45.0
Other developed Europe	4.4	7.2	3.0	4.6
North America	13.5	13.8	22.0	17.3
Other developed	13.3	3.3	4.5	13.3
Africa	0.3	0.3	1.0	1.2
South America	0.7	0.0	1.3	0.7
Central America	0.3	0.4	2.5	-0.3
West Asia	2.0	0.1	3.6	3.0
South-East Asia	3.3	5.5	5.3	10.2
South-East Europe, CIS	0.0	0.0	2.1	3.1
Unspecified	13.5	2.2	2.7	2.0

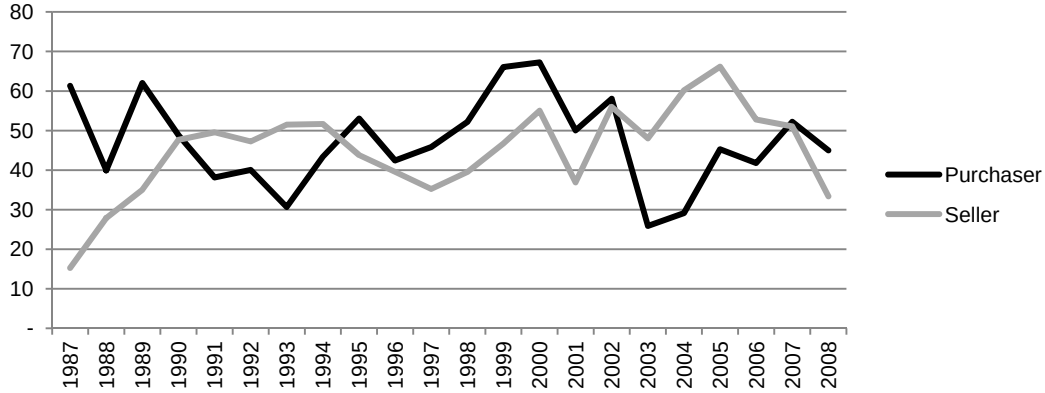
Source: UNCTAD, M&A database.

South, East and South-East Asia booked some increase of M&A purchases in the 1990s but then it did not gain shares in the 2000s until 2008. The region's share went up in 2008 and reached also a nominal level 2-3 times higher than before. Among the countries of the region, China, India and Singapore were the largest cross-border purchasers. Latin America and West Asia were the two regions which had growing shares of global M&A in the

2000-2007 period but fell back together with the developed countries in 2008. In West Asia the oil-exporting countries were the main investors especially in years with high oil revenues. Individual countries often recorded some peak years and several years with almost no investment indicating that single mega-deals had a major impact. On the whole, *one cannot see lasting trends in regional distribution of the M&A business except perhaps for the increasing activities of South-East Asian investors*. In the following we concentrate on changes in the position of the EU.

Figure 6

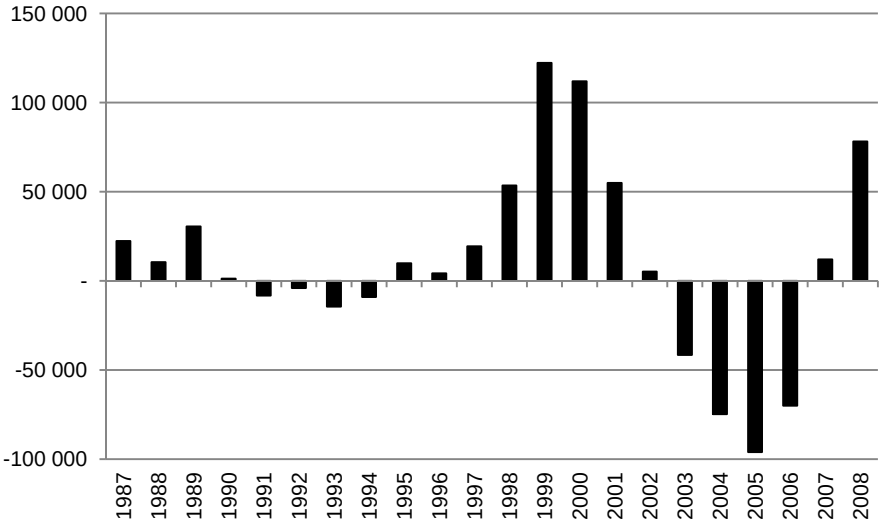
Share of the European Union in the global value of M&A as purchaser and as seller, 1997-2008, %



Source: UNCTAD, M&A database.

Figure 7

Net M&A position of the European Union, purchases minus sales, USD million



Source: UNCTAD, M&A database.

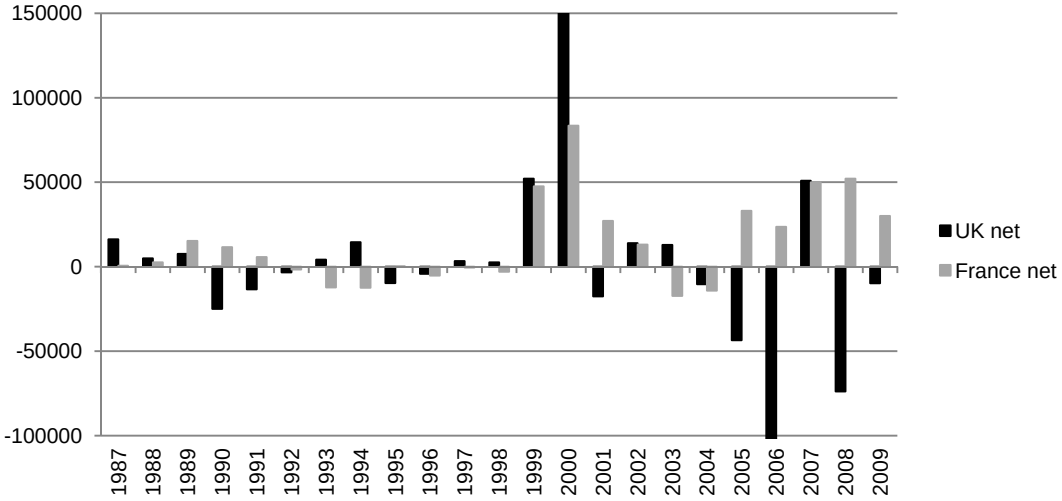
EU-based MNCs were among the drivers of the global fluctuations in M&A purchases: the share of the EU in the world total increased when the value of global M&A increased in

1997-2000 and decreased when the global value of purchases decreased in 2001-2003[3]. But since 2003 trends depart. The recovery of European purchases after the dotcom crisis was less rapid than of the other parts of the world thus the share of the EU surpassed again 50% of the global only in 2007 (Figure 6). *For the whole time-span covered by M&A data EU countries have maintained their significance in the global M&A purchases and sales with around 50% of the global value.*

The share of the EU in global M&A sales fluctuated somewhat differently of the purchases[4]. The net M&A position of the European Union, measured as purchases minus sales fluctuated over the 23 year with five distinct periods (Figure 7). The EU was in a net purchaser position in 1987-1990, 1995-2002 and 2007-2008 and in a net seller position in 1991-1994 and 2003-2006. There were more net purchaser years (15) than net seller years (8). As one of the developed regions of the world, the EU ought to be a net purchaser and this has been the case, but not always. Most strikingly, the EU fell into a net seller position during the most recent global surge of M&A, 2003-2006.

Figure 8

Net M&A position of the United Kingdom and of France, purchases minus sales, USD million



Remark: 2009 refers to the first half of the year.

Source: UNCTAD, M&A database.

The fluctuations in European M&As are partly due to single country effects. The United Kingdom (AUGUR block 'West Europe') has usually been the main M&A purchaser (Figure 8). It purchased and sold in relatively low amounts in 1990-1993 when especially France and Italy had more sales than purchases. In 1998-2000 not only the UK but also

[3] Data for the European Union is the sum of the data reported by 27 current member states. Thus it contains both extra- and intra-EU M&As.

[4] Global M&A purchases and sales are of equal value in each year as the same transactions are booked both under sales and purchases.

Germany and France had high positive net M&A. It was the UK which led the setback of purchase in 2001. Its share in the EU purchases dropped from 52% in 2000 to 17% in 2001. Its share in sales increased from 22% to 34% and the balance was highly negative. UK and also German purchases in 2004-2006 were rather modest while both countries recorded relatively high sales. In 2005 the UK, Germany and the Netherlands were all in deep negative position while France was in positive net position. In 2008 and 2009 France reported higher amounts of M&A purchases than the UK and contributed decisively to the relatively good EU performance at the time of the financial crisis. The opposite direction of the development in net M&A positions of the two countries smoothed the EU trend in several years. This could be, but was not necessarily the result of mutual M&As.

Table 5

Number of major M&A deals and extra-EU M&A deals

	Total number and size limit of M&A deals	Of which extra-EU deals involving	
		EU host	EU home
2009	108, above USD 1 bn	20	20
2008	73, above USD 3 bn	11	14
2007	96, above USD 3 bn	17	19
2006	172, above USD 1 bn	30	30

Source: UNCTAD, M&A database.

Unfortunately UNCTAD does not publish a comprehensive database on extra-EU vs. intra-EU M&As and available data for the last few years are for different size classes of deals; we undertake a comparison, nevertheless (Table 5). The impact of the financial crises can be seen in the lower number of large deals in 2009 than in 2006. About half of the large takeovers in the world are related to firms with EU-member host or home country and of them 30-40% involve extra-EU host countries. The major part of extra-European M&A deals are with the USA. At least in the case of such mega-deals EU based MNCs invest in or are taken over mainly by other EU based MNCs. Thus intra-EU deals dominate over extra-EU investments.

The policy relevant question related to cross-border M&As from a European point of view is whether it is advantageous from an efficiency and from a development viewpoint? It is generally acknowledged that the firm taking over another firm has firm-specific advantages, usually higher productivity, thus the overall productivity of the host country increases after takeover. Outward M&A can also have the advantage of accessing cheaper supplies and new markets thus supporting efficiency in the home country. From a political viewpoint, advantages of headquarter-functions would be lost in a foreign takeover. This idea is based on the impression that MNCs usually concentrate and develop their key firm specific competences in their headquarters. Headquarters are usually stable and provide high-quality jobs while subsidiaries are less stable. Headquarters may also gain from knowledge

transfer from subsidiaries (Ambos, Ambros and Schlegelmilch, 2006). Recent literature is by far not unison.

In a study examining how the location of headquarters affects the investment decisions of some 5,000 subsidiaries around the world (Carlin, W., A Charlton, and C. Mayer, 2007), the authors find that foreign ownership encourages a focus on profitability when taking investment decisions. Subsidiaries are not allowed to invest if the outcome is not the most profitable in the MNC group; *the barrier of efficiency is more powerful than in case of independent firms*. This is all the more visible during a host country crisis when foreign firms withdraw capital and invest elsewhere more easily than domestic firms. But what may be the most efficient decision from the viewpoint of a MNC may not be optimal for the host country of subsidiaries and this aspect influences political decision-makers and the public.

Another point of dispute concerns the propensity to innovate. While foreign subsidiaries outperform domestic firms in terms of productivity, they rely more on imported R&D than on host country achievements concludes a study on Nordic country firms (Börje, Lööf and Ebersberger, 2008). *The authors find that domestically owned firms have higher R&D propensity than foreign subsidiaries operating in these countries.* The reason is that domestic firms are more imbedded into the national innovation system than foreign subsidiaries. The results of Bandick, Görg and Karpaty (2010) give no support to the fears that R&D activity would be lost in companies after foreign takeover. Rather, this paper finds *evidence that foreign acquisition leads to increasing R&D intensity in acquired domestic MNCs*. Seen from the viewpoint of the investing MNC, Stiebale (2010) finds that German firms engaged in foreign acquisition will spend more on R&D at home than before investing abroad.

6 The landscape of multinational corporations: greenfield investment projects

Greenfield investments are new investment projects mostly in new locations (a minor part of them are expansions at existing locations). This is the most dynamic part of FDI and tells more about future-oriented decisions than FDI flows registered in the balance of payments.

Information on greenfield projects are registered in the 'fDi Database of the Financial Markets Ltd.'[5] Data derived from this source refer to projects announced in the years 2003-2010 (Table 6). The development of project number was subject to the business cycle

[5] The 'FDI Intelligence from Financial Times Ltd' (http://www.fdimarkets.com), called the 'fDi database' is regularly updated and allows for the most analysis of the most up-to-data information. The fDi database provides information on the number and other characteristics of green-field projects. Data are based on press reports which are then cross-checked and corrected. They thus differ principally and significantly from the FDI data reported in the balance of payments. Information is incomplete concerning the amount of equity investment generated by the projects as these data are partially estimated. Another feature of the database is that it operates with its own industry classification and country groups.

booming until 2008 and hit by the financial crisis more recently. The number of projects over the world increased 1.7 times between 2003 and 2008 and declined by 14% in the following two years. The same kind of changes can be seen in the aggregate value of the announced investments, but both the increase (1.9 times) and the later decline (45%) was more pronounced than in terms of project number. This means that the average size of projects increased in the boom period and declined during the crisis.

Table 6

Registered cross-border greenfield projects in the world, 2003-2010

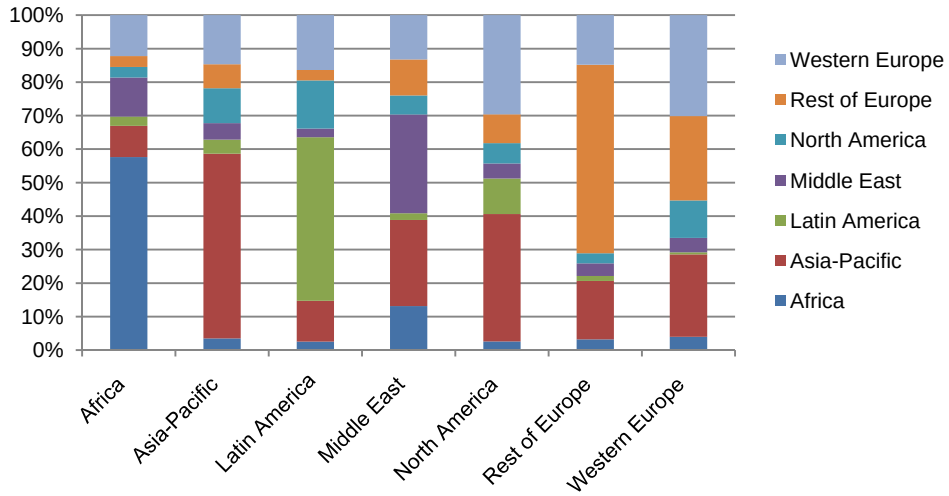
	Project number	Committed value USD mn
2003	9454	761863
2004	10232	708649
2005	10560	709747
2006	12275	884048
2007	12242	940083
2008	16418	1461732
2009	14184	951699
2010	14141	807619
Total	99506	7225440

Source: fDi Markets.

The upswing and decline of greenfield FDI are quite normal over the business cycle; the question for the future is whether there have been any regional and industry shifts which may be more lasting during the upswing? The time span covered by data is pretty short thus we shall find only partial and tentative answer to this question.

Figure 9

Home (horizontal axis) and host (vertical axis) of greenfield projects, 2003-2010



Source: fDi Markets.

To demonstrate regional shifts, we first aggregate data for continents and compare home and host regions (Figure 9). The important finding is that intraregional greenfield projects are dominant in all regions except in North America which is comprised of only two countries. This region invests mainly in Asia which is second most frequented target for the other regions after intra-regional investment.

The *classification of countries into the AUGUR Blocks* brings more detailed insight in the changes related to emerging markets and different groups of European countries (Figures 10 and 11).

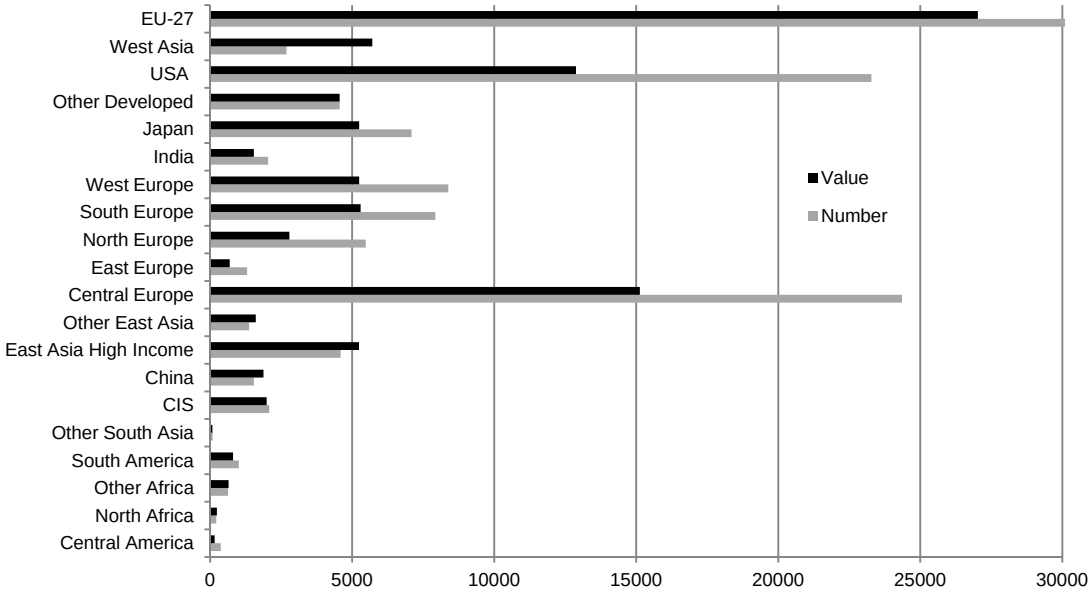
Both in terms of investment value and project number Central Europe is by far the most prominent region and within it the countries of 'Central Europe' followed by the US. There are important investing regions in Asia where West Asia and East Asia High Income countries have especially high project values. These regions and also China and Other East Asia have especially large, capital intensive projects with high investment value per project. India has more projects but lower investment value than China. Latin American and African countries are on the whole unimportant having small numbers of projects and low amounts of investments in greenfield projects.

Changes over time can be demonstrated by *splitting the time for which data are available into two parts comparing the number and value of greenfield projects in 2007-2010 with those in 2003-2006*. This shows an increase of some 35% by both indicators and the EU-27 was above the average with about 45% and 49% respectively. Backward regions with low amounts of greenfield investment grew the most rapidly. East Europe (including most of the new EU member states) had the strongest increase in terms of project value and China in terms of project number. They are followed by Other East Asia with especially strong rise in terms of project value. African and Latin America region also registered above average growth from a low base. Several advanced regions had below average growth including the USD, Japan, Other Developed East Asia High Income as well as the countries of the CIS. *As a result of the changes over eight years the shares of developed regions in global outward greenfield investments declined (important exception are Central, South and West Europe) while the shares of emerging regions increased, most dynamically those in East Asia.*

The target (host) regions of greenfield investors in 2003-2010 were predominantly the US and the EU as well as China and India. Developed regions were also the targets for China. Investment projects from Other East Asian countries went mainly to China and to countries within the region. Investments of regions with lower level of development invested mainly in neighbouring countries.

Figure 10

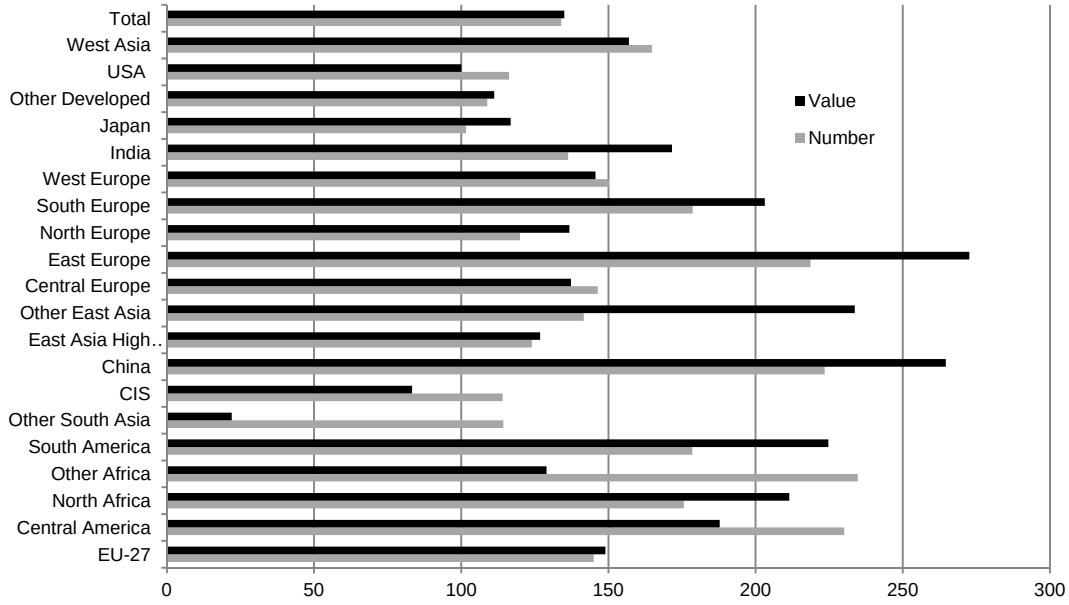
Greenfield FDI, number and value (in USD 100 million) of outward investment projects by AUGUR Blocks of home countries, 2003-2010 cumulated



Source: fDiMarkets.

Figure 11

Change in the number and value of outward greenfield projects, 2007-2010 in per cent of 2003-2006



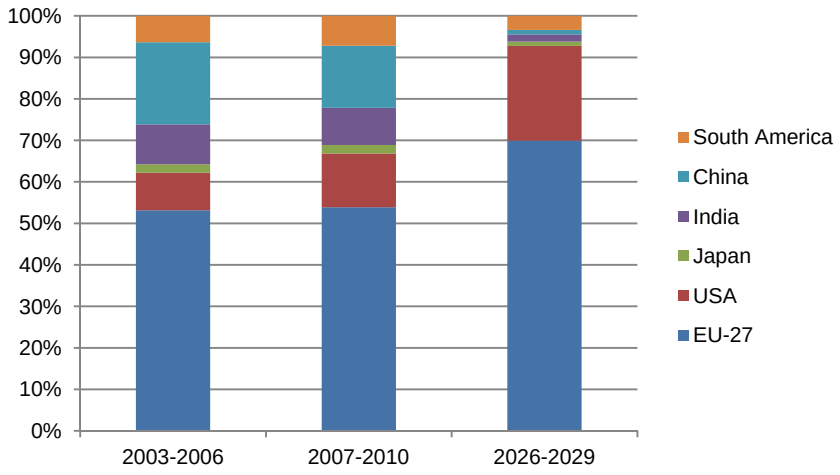
Source: fDiMarkets.

Taking only the most important investors – the EU-27, USA, Japan, China, India and South America – *we extrapolated the growth rate between the two periods of 2003-2006 and 2007-2010 to another six such four-year periods*. In 2007-2010 the six regions accounted

for two thirds of the total outward greenfield investment projects. Taking their joint investment project number as 100, we calculated the distribution of projects among these regions in the two above periods and in the extrapolated period 2026-2029 (Figure 12).

Figure 12

Distribution of greenfield projects by most important home regions, %



Source: fDi Markets.

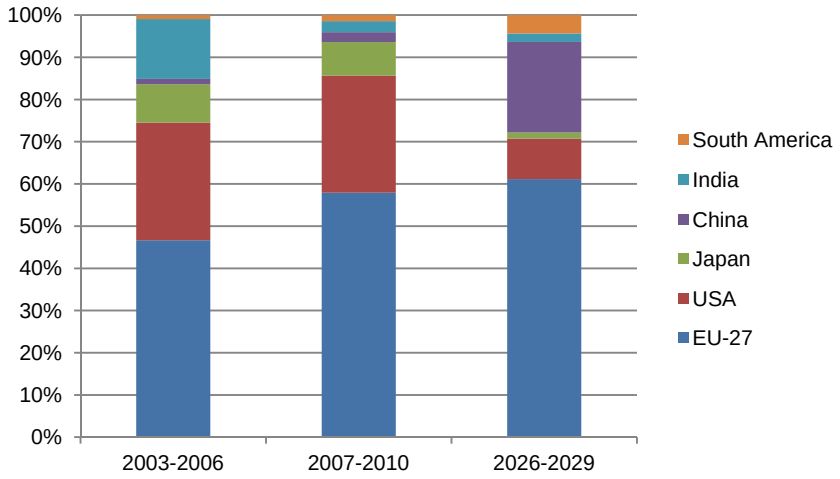
The main losers as investors (home) of greenfield projects in the next 20 years will be the USA and Japan, while China and Latin America will gain the most. The *EU will maintain its position* with a marginal gain while India will suffer a marginal loss. 60% of the projects will have one of the 27 current EU members as source country and more than 20% will come from China while the US will shrink to below 10%. Extrapolating the investment value instead of the number of projects, the future picture will be similar, but the US would have an even lower share, while South America would gain more.

Doing the same exercise for inward greenfield projects, the EU-27 turns out to be even more overwhelming with their share increasing from 54% to 70% in 20 years (Figure 13). USA is to increase its share from 13% to 23% while all other regions tend to become negligible investment targets due to the negative growth they suffered in the late 2000s.

Looking at the *top individual investing countries* one finds that *projects are very concentrated*; more than 60% of the projects are from the 10 largest investors among which there are no emerging economies (Figure 14). EU member states together take the biggest share while the dominant singly country is the US the share of which declined from 25% to 22% during the eight years. The countries with the highest growth in the number of projects were Spain and Switzerland but they also booked decreasing numbers of projects during the crisis. A growing share belongs also to the group of 'Other countries' (including the emerging economies) from 31% to 33%. Also in their case, the number of projects reached the peak in 2008 but declined later albeit less than of most developed countries.

Figure 13

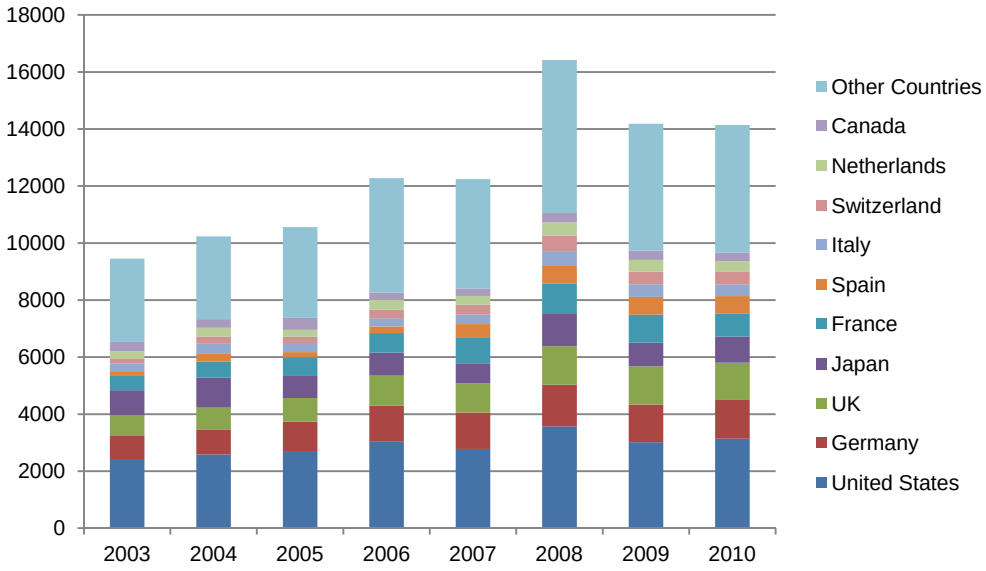
Distribution of greenfield project among the most important host regions, %



Source: fDi Markets.

Figure 14

Number of greenfield FDI projects by the main home country of the investor



Source: fDi Markets.

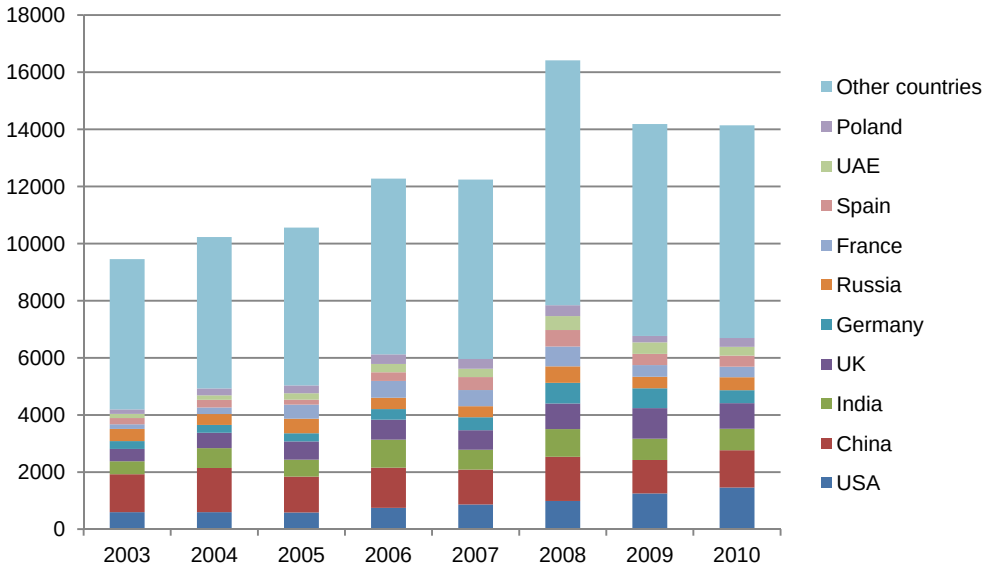
In the most recent years (2008-2010) project numbers of China, Sweden, New Zealand and Argentina have been rising. The amount of investments grew in the case of South Korea, Taiwan, Malaysia, Indonesia and Chile. By both indicators one can identify growing greenfield investment activity of East and South-East Asian and South American countries. In many instances, during the observation period these countries recorded the highest level of greenfield activity in 2010. This shows that emerging economies were less hit by the crisis than advanced countries but does not indicate that the latter will not regain their position when recovery sets in.

One of the major emerging market players is China having a growing number of outward greenfield projects between 2003 and 2009 (from 109 to 330) and then a minor subsequent setback in 2010 (267). In the last three years an average of 286 projects was initiated, one third of those by Japan. Chinese investment projects have been most numerous in the Asia-Pacific region. They achieved a one-time peak in Western Europe in 2009 and had a continuous increase in most other regions. The value of investments in Europe is rather low especially compared to Africa and Latin America which received large size Chinese projects mostly in primary activities.

The main host countries of greenfield projects are to a large extent different for the main investors (Figure 15). The first two target countries are the US and China. The concentration of host countries is lower than of the home countries, the first ten took only about 44% of the total in 2003 and the increase to 47% in 2010 was solely due to the US. In all ten countries the number of projects in 2010 was higher than in 2003 with the notable exception of China. In fact the annual number of projects in this country was almost the same all through the years at about 1300 thus it received 14% of the projects in 2003 but less than 8% in 2010 while also the amount of invested capital declined. First of all, the number of manufacturing projects declined in China and of sales and services increased. India is a further emerging destination; here the number of projects peaked in 2006 when manufacturing, marketing and R&D projects all were on the top. For both China and India the projects from the US set the trend.

Figure 15

Number of greenfield investment projects by the host country of the project



Source: fDi Markets.

The CEECs had declining shares with the notable exception of the Czech Republic where the number of inward projects in 2010 reach the peak since recording started. Also most of the Asian countries attracted lower number of projects except for South Korea and Singapore while several Latin American countries recorded increases. Invested capital declined in most countries during the last two years except Australia, Brazil and Singapore.

Table 7

EU-27 outward investment projects in the world

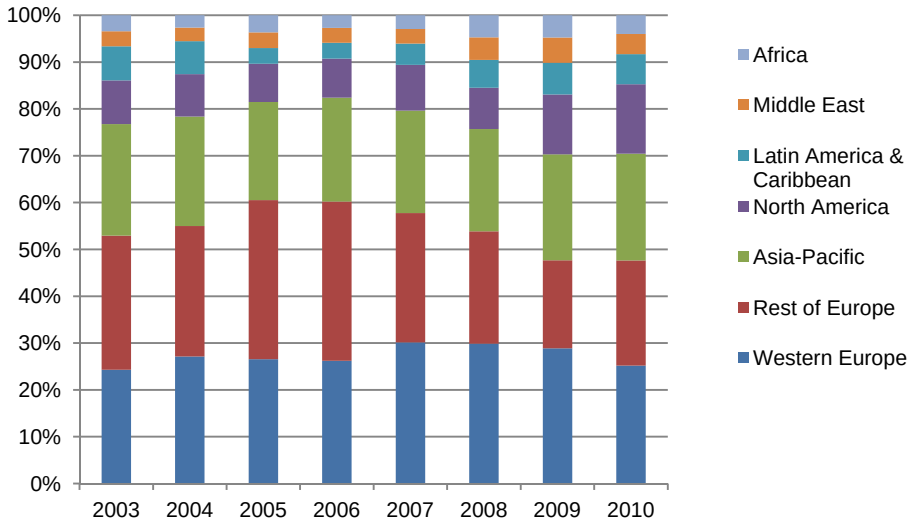
Year	No of Projects	Investment USD billion	No of Jobs
2003	3,751	277.1	822,774
2004	4,278	233.4	810,814
2005	4,586	252.5	887,365
2006	5,426	325.5	1,198,357
2007	5,894	375.2	1,253,514
2008	7,331	538.0	1,597,484
2009	6,583	383.3	1,051,172
2010	6,322	317.9	954,906
Total	44,171	2,702.9	8,576,386

Source: fDi Markets.

The 27 EU members were the home countries of 40% of the globally initiated greenfield FDI projects in 2003; their share increased to 45% in 2008 where it stayed in 2010 too (Table 7). *Thus the position of the EU as greenfield investor was not hit by the crisis*, to the contrary.

Figure 16

EU-27 investment project number by destination region and year



Source: fDi Markets.

One quarter of the investment projects of EU firms was located in Western Europe (intra-EU and EFTA) in 2003, this share rose before the crisis to 30% and fell back to 25% in 2010 where it was in 2003 (Figure 16). The most significant destination before the crisis was Rest of Europe (South-East Europe and CIS) and this region suffered the most significant decline. Asia kept its share of 20% all through the observation period. North America was a main winner in recent years climbing above 10% of the EU outward projects.

Turning to the **business activities of outward greenfield investment projects**, the definition of the fDi database does not relate to NACE categories but to the practical function of the new foreign subsidiary (Table 8).

Shifts between business activities affected most intensely manufacturing, the share of which declined from 34% in 2003 to 22% in 2008, plummeted in 2009 and reached in 2010 the level of two year earlier. Still *the number of manufacturing projects was 16% higher in 2010 than in 2003 but the total number of project rose by almost 80%*. The two *main gaining activities were Sales & Marketing & Support and Business Services* both coming close to the share of manufacturing in 2010. The shares of other activities were markedly smaller and did not change much over time. In recent years the share of projects declined in Extraction, Research & Development while it increased in Design & Development & Testing and Headquarters and Other Business Activities. There is an overall shift to services related projects which is in line with the general shift of economic activities in most countries of the world.

Table 8

Share of business activities in the global number of investment projects, 2003-2010, %

	2003	2004	2005	2006	2007	2008	2009	2010	Total
Manufacturing	33.8	31.0	27.3	25.4	25.5	22.1	18.5	21.9	24.7
Sales, Marketing & Support	12.8	17.0	20.6	20.5	20.5	21.0	20.4	20.6	19.6
Business Services	10.4	8.7	10.0	12.4	15.1	16.4	18.1	18.4	14.5
Retail	11.6	13.8	12.1	13.1	9.7	10.0	12.9	12.5	11.9
Logistics, Distribution & Transportation	4.5	5.5	5.5	5.9	6.2	5.2	5.7	5.1	5.5
Construction	5.4	4.3	4.2	4.8	5.4	7.2	4.2	3.2	4.9
Headquarters	3.4	3.7	3.4	3.5	4.0	3.4	4.4	3.9	3.7
Design, Development & Testing	3.3	3.6	3.3	3.8	4.0	3.6	3.4	3.6	3.6
Extraction	5.0	2.7	3.8	1.1	1.0	1.9	1.5	0.9	2.0
Research & Development	2.7	3.1	3.1	3.0	1.5	1.3	1.4	1.1	2.0
Other Business Activities	7.1	6.6	6.7	6.4	7.2	7.9	9.5	8.9	7.7

Source: fDi Markets.

We can identify the following *high-quality business activities*: Business Services, Headquarters, Design & Development & Testing, ICT & Internet Infrastructure and Research &

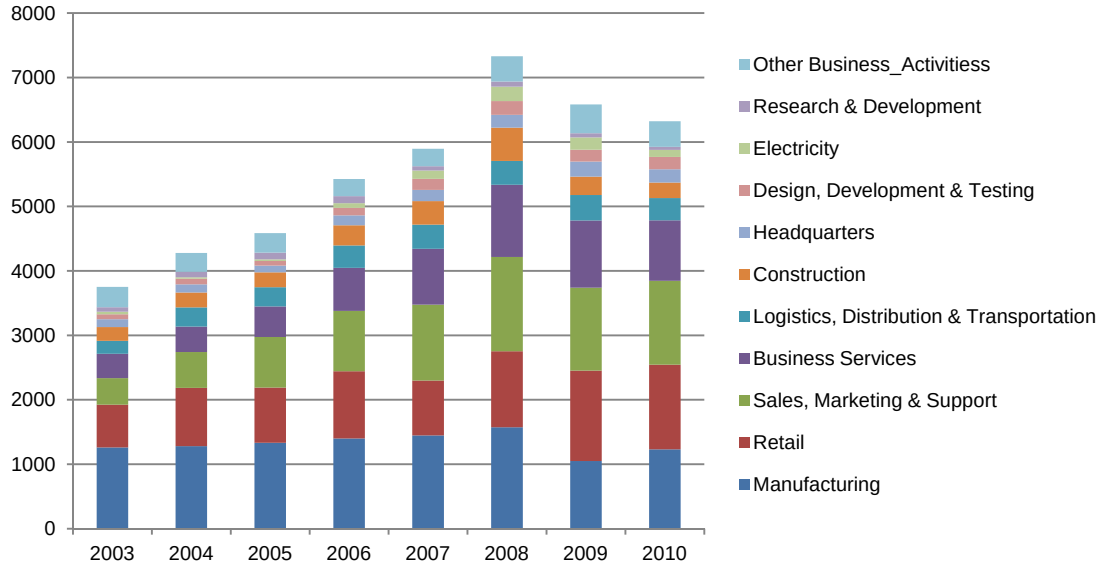
Development. We assume that regions which are able to increase the number of projects in these activities get into a better market position. The increase can refer both to outward greenfield projects, meaning that the region has firms with superior productivity and firm-specific knowledge, and inward projects- meaning that the region provides locational advantages for high-quality activities. Calculating the shares of these activities in the number of investment projects one finds that indeed, the Other Developed Countries (20%) and the US (17%) have the highest shares. They are followed by China (12%), Central America and India (11%). Another group of highly developed regions such as Central Europe, West Europe and Japan, with only medium shares of high-quality activities of 8%, are those having relatively high shares of manufacturing. As to the rest of the regions, the poorer they are the lower the share of high-quality business activities.

The 2100 R&D projects comprised 2% of the total number of recorded projects in 2003-2010. In time the project number peaked in 2006 and declined in 2010 below those in 2003. The US is the main home country while China and India are the main host countries. For other significant investors such as Japan and Germany, China is in the first place and the US in the second. For the EU-27, R&D projects numbered 69 in 2003, were on the peak in the years 1005-2006 (above 100). Preceding the crisis they concentrated in Western Europe and the Asia-Pacific region, first of all in China and India (both with one third of the projects in 2006). In subsequent years the number of R&D projects decreased including the Asian destinations while some increase took place in the US. The decline in 2010 (only 47 projects) hit all destinations but first of all Western Europe while the share of Asia expanded. If R&D investments are considered as the most future oriented among the investment targets one may conclude the EU members were still in a crisis in 2010 lacking the means and prospects to invest in the future. Design, development and testing are concentrated in India ahead of China. These activities did not suffer much of the crisis; the number of such projects in 2008-2010 was double of what it was in the early 2000s. They developed also in value terms as opposed to R&D where investment commitments fluctuated during the 2000s and were on the decline lately.

For the EU-27 home countries Rest-Europe has been the main host of manufacturing investments and this activity suffered most due to the crisis (Figure 17). The share of retail, sales and marketing increased during the crisis just like of business services. While in 2003 almost one third of all EU projects were realized in manufacturing, in 2010 just about 18%. The number of manufacturing projects declined during the last three years in all destinations most significantly in Western Europe and Rest of Europe, less so in Asia and Latin America while they increased in North America. The reported host markets of the manufacturing projects were in 25% of the cases the home country itself, in 16% each Asia and Western Europe. Proximity to customers and market potential were the overwhelming investment motivations – cost saving appeared in only about 20% of the cases.

Figure 17

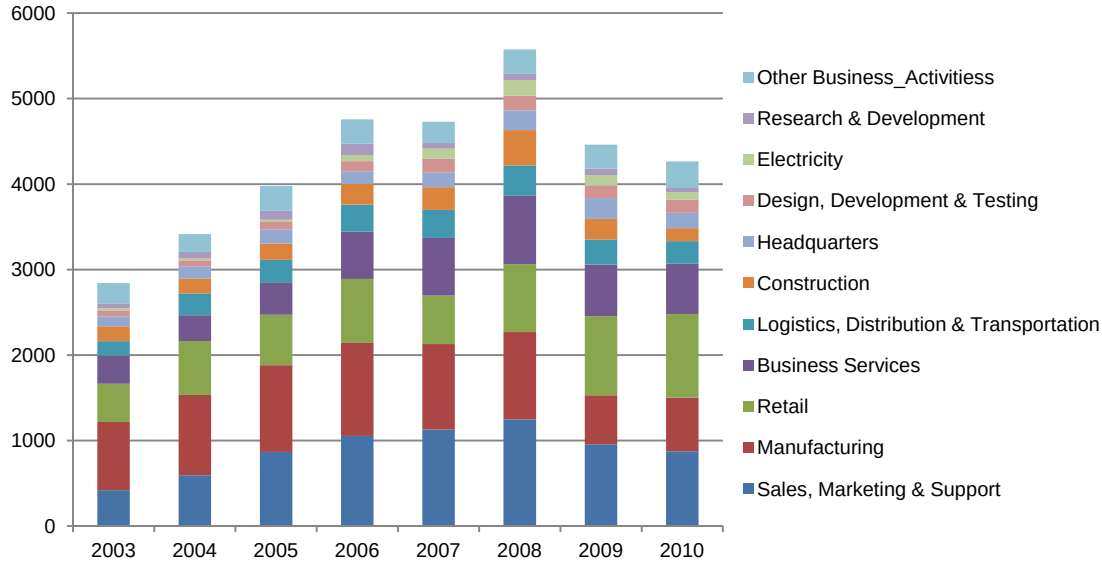
EU-27 outward greenfield investment, project number by business activity



Source: fDi Markets.

Figure 18

EU-27 inward greenfield investment, project number by business activity and year



Source: fDi Markets.

The number of inward investment projects to EU-27 countries culminated in 2008 similarly to the outward projects and by 2010 it fell by 24%, almost back to where it was in 2005 and much more than the number of outward projects. The majority of the loss affected the manufacturing activity where the number of new projects in 2010 fell well below the 2003 level (Figure 18). Also construction and R&D were very negatively affected, while all other sectors including also headquarters and design registered only small recent declines. The

retail sector was an outlier as the number of projects rose even during the crisis years. This may reflect the effort of companies to sell while they sit on overcapacities in production. Emerging from the crisis in the future will most probably involve a return to manufacturing and R&D investments.

7 Research finding shaping future growth and the role of Europe in international business

An important conclusion from the chapter above is that Europe is in a wait-and-see position. It has by and large preserved its standing as regards FDI and corporate growth over the past ten years. The decline in Europe's global FDI share in 2008-2009 was due to the financial crisis but this may be only temporary. The impact of the more recent euro crisis is not yet reflected in the FDI data. It can at least prolong the weak international investment activity of European firms especially if the banking system is weakened.

The case of the other two developed regions – the US and Japan – is different from Europe in as much as they have lost shares in global FDI already for a longer time, not only related to the 2008 crisis. Expectations confirm this trend to continue, although the US will preserve its top position according to the size of the FDI stock.

Emerging regions in terms of FDI in recent years include China and South-East Asia as well as South America, but this is not a very long trend and may partly be associated with the recent crisis in the developed world. The invested amounts of these countries outside their home regions are still low. China, India and Brazil may become more important international investors in the future but will, on the whole, not endanger the dominant position of US and European companies. The share of emerging economies, in particular of China and Brazil, is expected to grow slowly in global business to the detriment of the US and Japan. This expresses a gradual shift in relative corporate power in the world.

Inward FDI is linked to the development of trade, and trade is linked to the growth of demand. High growth of demand and production has concentrated recently in Asia, especially China; also some Latin American countries grew faster than the world average. Developed country multinationals follow this shift of main markets and low cost production locations. The example of Nokia shows that missing to benefit from cheap Asian sourcing and to build Asian markets for products together with sluggish innovation in the home country can undermine the stability of large corporations (Seppälä, 2010).

The summary of research on international sourcing showed that only a small number of companies source internationally and also those stay mostly within their home region. This refers first of all to European firms and to Asian firms. The value chain of IT production is the most segmented. The component industry is spread around South-East Asia while the

assembly is done mainly in China (see also Thorbecke, 2010). The whole industry is based on innovation done in the advanced Asian countries. The final products are exported outside the region which contributes to a large trade surplus with the US. But this is only one of the industries, one with high unit value not sensitive to transport costs. Other industries, such as the automotive industry, are more evenly spread in the countries with high demand.

The main motivations of international sourcing are cheap inputs (mainly based on labour cost) and strategic access to markets and resources. The intensity of international sourcing between the main trading blocks has been weak. US firms have been sourcing from longer distances than firms from Asia but there is a trend to source more from the Americas.

The main barrier to international sourcing in manufacturing is identified as distance, expressed in transport cost. Surveys have shown that the high oil price in recent years has driven back US companies from outsourcing to Asia. For services this factor is less important than cultural distance. Still, the dominance of India and China has been diminishing and other destinations have become important, especially if they have the same time-zone as the developed countries (for the US this is Latin America, for Europe Egypt and South Africa).

All sourcing is associated with risk which may itself be linked to transport, culture etc. In the aftermath of the 2008 crisis, low trust and high perceived risk hinders the international flow of capital, goods and services. Some expect that the post-crisis development will be associated with less international sourcing.

For European firms the US, China and India are the most important single destinations of FDI and outsourcing and also the main export markets. A disruption of links with these destinations can hinder development. A disruption of Europe's links with the US may hinder access to technology and markets, in the case of China and India markets and cheap sourcing are at stake. Cheap sourcing from closer countries may be an alternative for Europe (MENA and CIS). Regional integration with the wider Europe can be an alternative to far-shoring. The development of production and skills as well as free trade in this region is especially necessary to match the needs of European multinational corporations.

Global FDI has grown more rapidly in the past twenty years than exports and GDP. The latter two have been associated with the increase of FDI. Also in corporate strategies, the penetration of new markets very often involves FDI. There has been a slow global shift in outward FDI as US companies have lost shares while China together with Hong Kong expanded. Europe has by and large kept its position.

FDI flow data confirm that investments go in the direction of high-growth regions. Following high rates of growth, emerging economy companies become able to invest internationally. In the past few years the BRICs have benefited from such development. But in a 20-year comparison the share of developing countries in outward FDI has not been increasing permanently. The reason is that a major driving force of FDI has been mergers and acquisitions among firms of the developed countries. M&As undertaken by Chinese investors were high only in 2008.

A main problem with FDI data is that they are measured by countries and not by regional blocks and one cannot distinguish between intra- and extra-block FDI. The exception is the European Union where intra-EU-15 FDI has had a growing share in both inward and outward FDI stock. The share of extra-EU-15 FDI declined first of all due to relatively low FDI to and from the US. The share of Asia as a European FDI destination is small but increasing.

8 Research finding for the AUGUR Scenarios

In the following we look at each AUGUR Scenario to see to what extent its framework conditions benefit international capital movements. Companies of which regions will dominate the world, what power shifts can be envisaged? We look at these scenarios from four aspects: (i) The impact of FDI and sourcing which benefits host and home economies via trade and employment; (ii) FDI benefits home economies by income transfer; (iii) Fuel prices influence the intensity of long-distance sourcing; (iv) International risk and barriers to investment influence the intensity of all investments.

(i) FDI receivers can benefit from technology transfer and access to capital. Integration into corporate networks can boost trade and employment in host countries and to some extent also in home countries. A decline in international investment and sourcing may slow down development. Global competition based on free trade and international capital movement stimulates R&D and technological development in general.

(ii) We assume that regions benefiting from FDI will have higher competitiveness and more advanced technology than the others. Companies dominating the world may benefit from economic growth more than others and gain more on their investment. The gains from growth in one region may be transferred to owners established in another region. Currently headquarters concentrate in the developed regions which benefit in terms of distributed profits. Capital income may generate demand for high-quality goods and services in the home countries but most of the society in developed regions may not benefit from the geographic split between ownership and economic activity.

(iii) A specific factor shaping the future growth of outsourcing and FDI is transport costs. If fuel prices are high, less outsourcing and trade develops between regional blocks. If fuel prices are low, more global than regional sourcing is possible.

(iv) The other important factor shaping international sourcing is risk. High risk of investment may curtail FDI. Governments can mitigate the risk of investment by international agreements and investment guarantees. They can also do much to improve doing business conditions.

It must be noted that the individual scenarios are available at different depth, thus information may not allow going into detail. Therefore we are not able to be very explicit on the four above aspects in each of the scenarios.

9 Scenario 1, 'Reduced government'

This scenario is based on the assumption of a progressive reduction of government budgets, fiscal deficits and of the role of the government especially in the high-income regions of the world. It is projected that the global development and policy making will be driven by large corporations and financial institutions. These will support business-friendly environments meaning both free movement of goods, services and capital and the reduction of risk of doing business. In regions where business-friendly conditions prevail, investment and trade will flourish. Global corporations will progressively react to global challenges, spread investments in less developed regions such as India and South America, increase local production in Africa and increase energy production from non-carbon sources. Scenario 1 concludes that 'as global business dominates international relationships, investment in production of commodities and manufactures may become less concentrated'. This is seen as a result of policy changes in low- and middle-income countries in favour of FDI and the integration of local business with international networks. Thus most parts of the world would become accessible and benefit from production by TNCs.

The behaviour of MNCs is a central component of this scenario. It is expected that business will replace partially the role of governments and create a more free environment under which it may flourish. As a result, in regions where the role of the government is already small in investment and demand generation, growth may accelerate. In other regions/countries, with currently large government investments and consumption, growth may decelerate if the role of government diminishes.

The question is whether government spending and investment will be fully compensated by private investment and consumer spending so that the world GDP and exports would not slow down. If no full substitution is available, per capita income will hardly increase in the high-income regions including Europe. One can also expect that South America, India and Africa will benefit relative to other regions. Based on the behaviour of MNCs one can

expect two impacts of reduced state presence in the economy with opposing consequences on international investment.

(i) The international and domestic environment for business and FDI may become more business-friendly when the role of government is reduced. International agreements may better reflect the interest of big business and free capital movement. Barriers to FDI may diminish and capital may be flowing also to countries with up to now relatively meagre inflows such as Japan or India. In general the loss of protection to domestic companies may slow down growth in the first period, but increased competition and imported technology and services may enhance growth.

(ii) Growth at an advanced stage of development depends to a high extent on the availability of public services such as high standard of education, R&D and business infrastructure. If support to business, directly or indirectly, by government programmes in R&D, education, etc. is curtailed, innovation may suffer. Reduced military spending and related innovation may have the same impact. Public supports have contributed to the competitiveness of companies especially at the front-line of technological development. Competitiveness-enhancing policies have benefited especially European firms both through national and community support. Military and aerospace programmes supported R&D in the US. Cutting funds can derail related policies and slow down innovation. Whatever part of government support can be substituted by companies' own resources, this will increase their costs. To stay competitive they will have to reduce labour cost which will curtail demand for products in developed countries. A slowdown of global technological development may curtail economic growth especially in advanced countries. In addition, revenue-side policies may also hurt companies if new taxes are introduced. Further, welfare systems will suffer if public spending is reduced and social cohesion diminishes in developed countries.

In regions with small budgets and no fiscal problems government efforts may even increase to support economic growth and technological development. This possibility may be beneficial for development in China. Chinese companies may be able to faster adopt the latest technology, accumulate revenues and invest more abroad. But some other state interventions should be curtailed to improve efficiency: diminishing political rent-seeking may add further growth stimulus to Chinese and several other Asian economies.

Free international movement of capital may increase efficiency on the whole. Enhanced competition may increase innovative efforts of companies. At the same time, without ample international rule-making the risk of international trade and investment may increase and conflicts may surface more radically. As to social impacts, the rule of corporations would lead to lower income of wage-earners thus demand may increase less and curtail economic growth globally.

10 Scenario 2, ‘China and US intervention’

The second scenario considers a larger and more effective role for government reinforced by a cooperation between the US and China. Europe and most other high- and middle-income regions will follow those two countries’ leadership. The cooperation between the two powers would stabilize international capital markets, provide exchange rate management and solutions to some politically sensitive issues. Successful labour market policies will be applied in developed regions. China would import more, avoid labour shortage and contain its current account surplus. As a result, GDP per capita would increase in Europe faster than in the base-line scenario. Also the rest of the world would benefit, except West Asia, which would lose oil revenues due to international price regulation.

One can expect that if the US and China were to regulate competition from the rest of the world this would be to the short-term benefit of the US but its corporations would be weakened in the longer run. The framework conditions would nurse Chinese companies which would grow in capital and power in a protected environment. From here they may make even more competitive takeovers than under other scenarios. On the whole, international capital movement may be slower than in Scenario 1.

Europe may have several positions under this framework. Provided the US-China relations increase global governance and freer trade is established between those two blocks, the EU may find itself in a weaker negotiating position. It will be up to the European corporations to make the best of this framework and the cooperation with both leading regions. They may invest more to access markets in China and invest also in the US to make use of technological innovation. Another option is that the cooperation between the two main powers will take on the form of a ‘cold war’ and all other regions in the world will have to choose sides. If Europe finds its place on the side of the US in this scenario, corporate integration would deepen between the two regions and give a boost to R&D and trade. Europe may also opt for strengthening its ties with China and benefit from market access there instead of technology access in the US. The role of governments and of the EC is more important under the China option than under the US option.

11 Scenario 3, ‘Regionalization’

This scenario is based on the assumption of fragmentation of the global system in continental groupings such as the Americas, Africa, East Asia, Other Asia including the CIS, and Europe. These world regions would have their own internal pattern of investment and specialization. Trade and investment would decline between blocks but intensify within blocks.

Regions with already advanced intra-regional cooperation may benefit less than those where such cooperation boosts business. Intra-regional FDI is most advanced in Europe. But it is increasingly also in the Americas and in East Asia. The other two regions, Africa and Other Asia, are more heterogeneous with little cohesion expressed in trade and FDI. The current sourcing trends support this scenario as trading costs and investment risks are high. Closeness in terms of geography and culture will gain in importance. Also currently, East Asia undergoes deepening integration due to the activity of multinational companies from the developed countries in the region and the emerging Chinese multinationals. US investors show increasing activity in the emerging economies of Latin America.

FDI within Asia is also very intensive but relatively modest compared with Europe. The main investor, Japan, is a global player with quite evenly distributed FDI in the main regions of the world.[6] Production networks are often organized with no capital involvement. We know actually very little about Chinese FDI; its high flow figures may be overestimated. Chinese FDI flows mainly to and from Hong Kong, and about 30% of it is round-tripping. In the absence of more accurate data, there is no proof that China would have a big regional integrating power through FDI.[7] Also greenfield projects of China have grown in number, reaching about one third of the number of Japanese projects in 2006-2009. Chinese investment projects have been most numerous in the Asia-Pacific region supporting regionalization. They achieved but a one-time peak in Western Europe in 2009. The value of investments in Europe is quite low, especially as compared to Africa and Latin America which received large-size Chinese projects mostly in primary activities. The annual number of greenfield projects in China was almost the same all through the years 2003-2009, at about 1300; thus it received 14% of the projects in 2003 but less than 8% in 2010 while also the amount of invested capital declined, first of all of manufacturing projects.

One cannot see China emerging very fast as a global direct capital exporter. FDI data are just different from those indicating the country's growing role in international trade and

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[6] Japan's outward FDI flow was highest in 2007 with USD 131 billion, compared with 74 billion in both 2006 and 2008 (JETRO trade and investment statistics, www.jetro.go.jp). The peak was booked in the US and the Cayman Islands. In 2010 the amount of outward flow shrank to USD 57 billion. In all recent years Asia has received Japanese outward FDI in the range of USD 22 billion, and China USD 6-7 billion. In 2008 the share of Asia was 18%, of which China 5%; in 2010 Asia accounted for 38% and China for 12%. In 2008 the amount received by Europe was equal to that of Asia; in 2010 the share of Europe fell less than that of the US and was 26% against vs. 16% of the US.

[7] In 2008, when global FDI fell by 15%, China doubled its investments to more than USD 50 billion; that amount rose to an estimated 66 billion in 2010. State-owned enterprises provided two thirds, private enterprises less than 1% in 2008 (Salidjanova, 2011). (For instance, Lenovo is owned by Beijing Province.) Most of the Chinese M&As are natural resource seeking, few of them are technology seeking. The regional distribution of Chinese FDI does not tell about the final destination of funds: 67% went to Hong Kong, 12% to Central American tax havens in 2009. USD 2-5 billion each went to Australia, US, Singapore, South Africa, Luxembourg and Russia. In the inward FDI of USD 90 billion in 2009, USD 54 billion came from Hong Kong, 7 billion from Taiwan (tax havens distributed between real investors). About 30% of the total FDI inflow is estimated to be round-tripping. This is about two thirds of the Hong Kong figure. Investors benefit from incentives for inward FDI as opposed to domestic investments which encourages round-tripping. Of the 2009 outward FDI stock, 28% was in trade and 28% in manufacturing, 14% in finance; of the flow 42% went into manufacturing.

global GDP. The reason may be that China has earned on trade accumulating capital reserves and does not need to rely on capital imports. Large and complicated value chains and component trade in the East and South-East Asia region confirm deep integration in corporate networks (Thornbecke and Salike, 2011) but these networks are more between independent than dependent firms. In addition, China's role is overrepresented in extra-regional exports as the country is the final link of the Asian value chain.

As pointed out above, regionalization is quite advanced in Europe. EU-15 FDI has become relatively more regional than global. But annual data reveal that the regionalization took place up to 2000; since then the share of extra-EU OFDI stock has stayed at about 41-43%. The distribution of investors from outside regions has changed, however. The share of North America in EU-15 OFDI shrank to one half within 11 years while growing shares were booked for Other Europe, comprising the CEE and EFTA countries. As a result, Europe altogether (without the CIS) had a share as high as 72.5% of the OFDI stock of the EU-15 in 2009. The shifts in the EU-15 inward FDI stocks were quite similar to the changes in the outward stocks. But the share of intra-EU-15 stocks in inward stocks has been larger and increased more rapidly than in the outward stocks. Investments from outside the EU-15 recorded a big decline in the case of North America, some decline from Other Europe and slightly rising shares from other regions.

in the longer run, Europe may be too small for the size of European firm. Much of the CEECs have been integrated by takeovers and greenfield investments and markets may not grow there in the earlier expected way. Investing companies need to develop new external directions: increasing technology ties with the US, increasing investment and sales in China and integrating EU borderlands in the CIS and North Africa. It seems that European firms would suffer most in case access to other continents should become more difficult. Lower FDI and trade with the US and Asia due to protection would be a major blow to development.

If East-Southeast Asia and North America become protectionist, European firms may increase their activity in the less integrated other two continents. Neighbourhood policies would be upgraded in this case. There is some scope for that, as the neighbouring regions Africa, CIS and West Asia are either not, or insufficiently, integrated and feature a one-sided economic structure (fuel and other raw materials). Countries located between Europe and East-Southeast Asia are not able to integrate among themselves. These neighbourhood regions can gravitate in different directions and Europe is the closest neighbour to integrate at least parts of them. Viewing the world in terms of interest blocks will mean that strong blocks will fight for dominance over weaker non-integrated regions.

12 Scenario 4, ‘Multipolar governance’

The fourth scenario provides an optimistic vision of global cooperation. Governments and business would cooperate in all regions in the fields of energy saving and the development of new energy resources. Less developed regions would benefit from development programmes of the developed countries. Their faster growth would have a positive feedback on the development of advanced regions. Features of Scenario 3 would be preserved in the form of governments’ active labour market policy, carbon reduction stimulation and more balanced current accounts. In addition, Europe would benefit from coordinated fiscal management, which would allow the growth of public spending and the region would attain income convergence. As a result, low- and middle-income regions would grow faster without sacrificing growth in the advanced regions; global growth would accelerate compared with the baseline scenario. Preferential trade incentives would boost exports from low- and middle-income countries. Their share in global trade would increase but developed regions would also grow nominally. Among the middle-income blocks South America, the CIS and China would enjoy accelerated growth. West Asia would lose out due to oil conservation policies.

Similar to Scenario 2, one can expect that international corporations’ headquarters would stay in developed countries. They would maintain cooperation with governments and keep international capital movements more regional than global. But lower fuel prices would allow more international sourcing and stimulate international investment. MNCs will be in the position to reap the benefits of international sourcing to a larger extent. Support programmes to poor world regions will partly be diverted by MNCs.

According to the assumptions of the scenario, weak regions in developed continents would benefit from public restructuring programmes. In a less than ideal case, they may not become competitive despite public spending as international private investment would avoid them. In the end, the expected growth benefit for Europe would not emerge. Reintroducing industrial policy measures may support growth in less competitive regions in Europe if free movement of capital in and out of the region is also restricted and directed. This could have detrimental effect on growth and innovation.

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APPENDIX: Definition of AUGUR Blocks (List of countries in Blocks)

Central America

Other America
Costa Rica
Cuba
Dominican Republic
Guatemala
Honduras
Haiti
Jamaica
Mexico
Nicaragua
Panama
El Salvador

North Africa

Algeria
Egypt
Libyan Arab Jamahiriya
Morocco
Sudan
Tunisia

Other Africa

Other Africa
Africa small LDCs
Angola
Burkina Faso
Burundi
Benin
Democratic Republic of the Congo
Central African Republic
Congo
Cote d'Ivoire
Cameroon
Ethiopia
Ghana
Guinea
Kenya
Liberia
Madagascar
Mali
Mauritania
Malawi
Mozambique
Niger
Nigeria
Rwanda
Sierra Leone
Senegal
Somalia
Chad
Togo
United Republic Of Tanzania
Uganda
South Africa
Zambia
Zimbabwe

South America

Argentina
Bolivia
Brazil
Chile
Colombia
Ecuador
Peru
Paraguay
Uruguay
Venezuela

Other South Asia

Afghanistan
Other South Asia
Bangladesh
Sri Lanka
Nepal
Pakistan

CIS

Former Soviet Union

China

China incl. Macao

East Asia High Income

Hong Kong SAR of China
Republic of Korea
Singapore
Taiwan

Other East Asia

Indonesia
Cambodia
Democratic Peoples Rep of Korea
Lao Peoples Democratic Republic
Myanmar
Mongolia
Malaysia
Other Oceania
Papua New Guinea
Philippines
Thailand
Vietnam

Central Europe

Austria
Belgium-Luxembourg
Switzerland
Germany
France
Netherlands

East Europe

Albania
Bulgaria
Former Czechoslovakia
Hungary
Poland
Romania
Former Yugoslavia

North Europe

Denmark
Finland
Norway
Sweden

South Europe

Spain
Other Europe
Greece
Ireland
Italy
Portugal

West Europe

United Kingdom

India

India

Japan

Japan

Other Developed

Australia
Canada
Israel
New Zealand

USA

United States

West Asia

United Arab Emirates
Bahrain
Iraq
Iran (Islamic Republic of)
Jordan
Kuwait
Lebanon
Other Middle East
Oman
Saudi Arabia
Syrian Arab Republic
Turkey
Republic of Yemen

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- Macedonia: back to recession
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