

TIGER

Territorial Impact of Globalization for Europe and its Regions

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Introduction

In the strategic policy documents of the EU, globalization is identified as one of the four main challenges facing European regions in the future.

Generally, globalization is seen as a very positive phenomenon for Europe: "Europe will continue to benefit from being one of the most open economies in the world but competition from developed and emerging economies is intensifying". (EC, 2010a). And the way Europe will benefit from globalization is clearly associated with its openness: "Global growth will open up new opportunities for Europe's exporters and competitive access to vital imports. All instruments of external economic policy need to be deployed to foster European growth through our participation in open and fair markets world wide... A part of the growth that Europe needs to generate over the next decade will need to come from the emerging economies as their middle classes develop and import goods and services in which the European Union has a comparative advantage. As the biggest trading bloc in the world, the EU prospers by being open to the world and paying close attention to what other developed or emerging economies are doing to anticipate or adapt to future trends." (EC, 2010a). Though the EU 2020 admits that globalization "puts pressure on some sectors of our economy to remain competitive", the potential impact on social and territorial cohesion is explicitly mentioned neither in the EU 2020 strategy nor in the policy documents focusing on territorial development such as the Territorial Agenda 2020.

This is the primary aim of this report to inform about the spatially unequal participation of European territories in the global economy – in their form and intensity – as well as the uneven abilities of European territories to resist global competitive pressure or to grasp opportunities of external and emerging markets. The diagnosis resulting from these analyses should inform policy makers about the place of Europe and European territories in the global economy at three different levels of interrogation:

- i. How should Europe position itself in the global economy?

In the Policy documents, it is stated that "The success of the EU 2020 strategy will depend not only on the integration between Europe's regions but also on their integration with neighbours, and even with worldwide relationships". In this context, the project will inform on the intensity and the nature of the relations between Europe and the rest of the world.

- ii. Which territorial policies can help to improve the position of Europe in the world, while at the same time improving territorial cohesion?

By addressing the complex link between competitiveness and openness and connectivity of European territories at different scales, this report will discuss whether the accent put on Metropolitan areas because they "play an important role in sustaining the EU's global competitiveness" (EC, 2011b) can be reconciled with the objective of territorial cohesion and "contribute to reducing the strong territorial polarisation of economic performance, avoiding large regional disparities in the European territory by addressing bottlenecks to growth in line with Europe 2020 Strategy" (EC, 2011b).

- iii. How can European territories improve their performance in the global economy?

By informing about the unequal ability of European territories in the global economy, we go a step further to reflect regional policies at local/regional level that takes into account the position of territories in the global economy.

The report is structured the following way: the first chapter describes the key drivers of globalization and particularly highlights the territorial impacts of globalization; the second chapter addresses the position of Europe, European regions and cities in the global economy at different scales by taking into account global flows of very different nature (human, economic, transport etc.); the third chapter informs about the main policy questions mentioned above.

Chapter 1. Key drivers and relevant scales of Globalization

Key findings

- 2) Cities and macro-regions are the main functional scales of globalization
- 3) Despite its weakening, the state remains nevertheless the main regulatory power in the global economy

The concept of globalization has been discussed and debated in the economic geography and social sciences literature from different viewpoints and perspectives for over a decade (Veltz, 1996; Chase-Dunn, 1999; Sklair, 1999; Cochrane & Pain, 2000; Beaverstock et al., 2000; Sassen, 2001). In this project, globalization is first defined as the unprecedented growth of flows and, as a consequence, increasing integration between different parts of the world. For Europe, this means that exchanges with the rest of the world are intensifying and that interdependencies between European territories and the rest of the world are becoming stronger than ever before.

First, can we identify major trends in globalization? Though we do not observe a major break in the trends of the recent decades compared to the post-war period, **flows of goods and services reached unprecedented levels** up until the recent financial crisis when trade in goods was around 28% of world GDP and trade in services around 7%, far beyond the peak of the so-called “first wave” of globalization in 1913 (figure 1). Beyond flows of goods and services, **contemporary globalization is characterized by increasing human mobility**. Migratory flows are not a specific feature of the recent wave of globalization in terms of their intensity. However, some decisive changes associated with globalization processes can be identified: though proximity still matters, the geographical reach of human flows has increased in recent decades; in addition to classical migrations from poor to rich countries, there has been growth in the mobility of qualified labour at a global level, as indicated by the increasing mobility of students and highly qualified labour embedded in global city networks. **Contemporary globalization is also characterized by knowledge-intensification**. Though flows of knowledge are not easy to measure and are disseminated through very different channels (the movement of qualified people, technological transfer, scientific collaborations etc.), they are often considered decisive in stimulating economic growth. The capacity to generate knowledge, or to absorb knowledge to generate innovation, is considered vitally important factors of competitiveness. Through different indicators, these flows have increased considerably in the last decade, even though the EU still lags behind NAFTA and Japan in many areas of knowledge (WP11). **The most distinctive feature of the recent wave of globalization lies in the importance of financial flows** which have exploded as a result of liberalization, and the emergence of global financial actors able to relocate capital to the most profitable lines of business almost instantaneously. Hence, the increase of FDI at a global level has been accompanied by the increasing mobility of capital on financial markets, notably stock exchanges. The liberalization of financial flows after the end of the Bretton Woods monetary system initiated a huge increase in cross border flows of financial capital. According to the WTO, daily financial flows in 2008 reached around 3000 billions of \$ when annual exchanges of goods and services were about 14000 billions of \$.

Second, what are the major processes driving globalization? **The shrinking of distance through the diminishing costs of transportation for goods and people has been critical to processes of globalization**. These processes remain deeply integrated in large infrastructures located in cities, notably in major gateways, which concentrate hub functions in maritime and air networks. Although this has been a continuous trend since the industrial revolution, it has been a specific condition for the increasing volumes of flows of different kinds across the world in recent decades. The so-called information and communication technologies have also been considered central in the current era of globalization (Castells, 1996; Veltz, 1996). For many authors, their development has

contributed to financial globalization and the emergence of more horizontal corporate management structures supporting more transnational and cooperative business networks. **Firms and global financial actors have therefore been playing a major role in globalization processes.** Since WWII, transnational firms have become major economic players and more international in their strategies, initiating processes of chain production across the globe. This process accelerated after 1990 resulting in increasing FDI as a share of world GDP (figure 1). Major firms act on a global scale through the integration of global production networks. This means that the production of goods and services is controlled by major economic actors that have global strategies for the location of functions within integrated value chains. It has resulted in a large increase in intra-sector trade at a higher rate than inter-sector trade (CEPII, 2006). Hence, a growing part of world trade is made within the same *filière* or value chain. Transnational companies have been the main driving force in this process, with intra-firm trade accounting for about one third of total world trade. In consequence, firms shape territorial relations through their location choices and offshoring strategies have important impacts on the development process at a regional level.

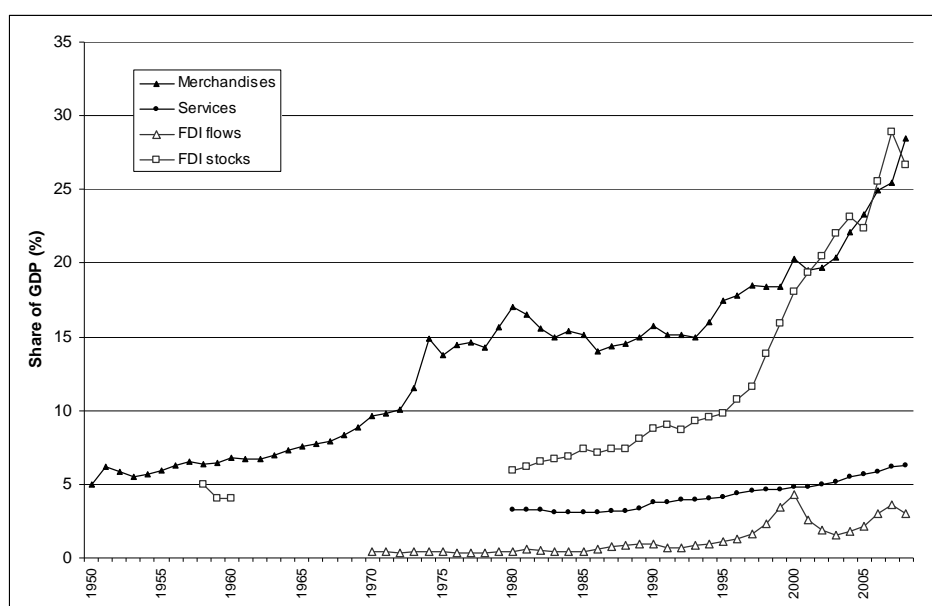


Figure 1. Share of trade and FDI in world GDP, 1950-2008

Source: UNCTAD completed by Chase-Dunn (1999)

Note: Ratio have been calculated using data on trade, FDI, and GDP of UNCTAD (2011). Data on FDI stocks in the sixties have been extracted from Chase-Dunn (1999).

Third, the most important question for territorial development in the European context is the relevant scale to analyze those processes related to globalization.

Though globalization has been defined as a growing interdependence between the different territories of the world, it should not be understood as undirected interconnections of all territories across the world. Indeed, naïve, early readings of globalization announced the “death of geography”, notably focusing on the potential locational impacts of new communication technologies. Our analyses, following many others, demonstrate the inaccuracy of this reading of globalization. **We highlight here how distance and agglomeration economies have become even more central through the analysis of financial, trade, human and knowledge flows. It results in two decisive functional scales for globalization: city and the macro-region.**

Cities are the result of agglomeration economies which derive from the advantage that firms and people draw from being near to each other (WP2, 3, 9, 10). But in the global economy, (large) cities play an increasing role by connecting actors through complex global networks within and between cities (Rozenblat, 2010) and by playing an interface role between the global and regional/national/continental economies (Friedmann & Wolff, 1982). Increasing flows across the world result in the growing importance of cities that concentrate gateway functions, notably benefiting from agglomeration effects in various domains. Thus the movement of goods and people is highly dependent on major infrastructures located in gateways.

As an illustration of the importance of distance, many authors insist also on the existence of intermediate levels of organization between the local/national and the global scale, be it from an economic or political point of view (WP 19). As might be expected the European Union appears as the most advanced territorial assemblage in this process of *regionalization*, notably because its economic integration has been accompanied by a process of political integration. Many other areas, some of which have taken the EU as a model, have engaged in a process of regional integration. However, we must note that the process of regional economic integration is still rather weak outside the major economic poles in the world, mainly NAFTA and the EU, while it is progressing in eastern Asia through ASEAN as well as Southern America through MERCOSUR. In contrast to fears expressed in the 1990s (Krugman, 1991; Frankel *et al.*, 1995), several authors have demonstrated that internally integrated regions have not led to economically protected areas (Anselin & O’Loughlin, 1996; Poon, 1997). On the contrary, both internal and external trades were developing together at very high rates (Table 2). For some authors, regionalization is now considered as a second rank optimum while for others it is a necessary transition to complete liberalization at the global scale (Richard & Zanin, 2009; Bhagwati, 1992; Mashayeki, 2005; Newfarmer *and alli*, 2005). This latter view has certainly been adopted by the World Bank in their famous 2009 World Development Report on “Spatial disparities and Development Policy” for which regionalization is now generally perceived as a positive process because it favours trade and globalization, and favouring trade is expected to boost territorial economic development. However, despite the huge increase in openness, it must be noted that big economic ensembles of the EU and NAFTA can still considered as relatively closed economies, with a ratio between trade and GDP of respectively 20.6 and 14.6%.

	Internal trade as a share of GDP (%)				External trade as a share of GDP (%)			
	1968	1986	1996	2007	1968	1986	1996	2007
ASEAN	7,7	10,3	22,3	33,5	24,4	44,6	65,9	85,8
CIS	0,0	0,0	13,0	11,4	2,0	8,0	29,2	40,8
EU	11,9	27,3	30,5	42,4	8,8	14,6	14,1	20,6
GCC	2,9	5,9	5,7	6,0	64,7	50,6	64,4	76,2
MERCOSUR	1,0	1,4	3,1	4,2	11,7	13,5	12,4	22,6
NAFTA	2,8	5,5	10,0	11,7	4,2	9,2	11,7	14,6
Average of all free trade areas	4,4	10,0	14,1	19,7	7,7	15,3	18,8	28,4

Table 1 Intra-block trade and openness rate of trade blocks, 1968 to 2007

Source: Personal calculations on CHELEM-CEPII database

Finally, on a political level, **the nation state** remains a decisive actor, the only one that really seems able to regulate the economy on a large scale. Of course, its regulatory power has diminished as a result of a “bordering” phenomenon compared with the “debordering” strategies of economic actors. The power of states is also hampered by a re-scaling process of policy toward supra-national forms of decision making at global/macro-regional levels and toward regional/local level.

It must also be noted that processes of globalization and the re-scaling of policies mainly result from political decisions adopted at national level. Indeed, globalization has been largely initiated and boosted by political decisions in line with the (neo)-liberal ideology which dominates international organizations such as the WTO¹ : “The system’s overriding purpose is to help trade flow as freely as possible — so long as there are no undesirable side-effects — because this is important for economic development and well-being”. We can identify several political decisions that have been decisive here. First, regional agreements have been established, most of them being first and mainly based on free trade principles. Second, there has been a continuous liberalization of trade at multilateral level, mostly within the WTO. Third, major powers, mainly the US and the EU, have signed numerous bilateral free trade agreements. Fourth and finally, there has been a tremendous deregulation of financial investments (Harvey, 2005).

¹ http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm

Chapter 2. Europe and European territories in the global flows

European territories are strongly affected by global processes described in the first chapter. Europe has increased its links with the rest of the world in all types of flows and is a major actor at global scale: the most important trade power, the first source of foreign direct investment, a very attractive place for all, etc. Moreover, the EU is also an important political actor. However, this stronger integration to the global economy certainly impacts the European territories very differently, because they participate with different levels of intensity and have a differentiated capacity to resist the increasing competitive pressure or to grasp new opportunities relying on the access to new markets.

That being said, we must note that Europe is first of all a very integrated and still moderately open territory, where most connections and flows are internal.

In this chapter we examine the position of Europe in the global economy, focusing on two different scales:

- *the macro-regional scale* by assessing the position of Europe as a whole in the world of flows and networks, taking as much as possible a long term perspective (chapter 2.1);
- *the subnational scale* by assessing how European regions and cities participate in the global economy and their vulnerability/strength in global processes. Chapter 2.2.1. addresses the position of regions (and countries) in the global trade and in the international division of labour, while chapter 2.2.2 takes another perspective by showing the position of European cities in different global networks (transport, finance and advanced services etc.).

2.1. Europe in the world

Key findings

- Europe is a prosperous area and stands high according to the most important criteria defined by the EU itself: competitiveness, territorial and social cohesion, and sustainability;
- Europe is a major player in all types of flows, although Europe's weight in the world has been declining in most areas;
- Europe is an open space: if we include services, trade reaches 27% of GDP; Europe attracts students and workers from increasingly diversified origins; cities are embedded in global networks;
- Europe is an integrated area, whose relations are mainly internal and include the neighbouring countries;
- The regions that matter most to Europe are not necessarily those to which Europe matters the most. In particular, Northern America and Eastern Asia are essential partners in European relations, even if Europe is more influent in neighbour regions;
- Europe is a global political actor, signing treaties with all countries around the world.

The analysis of flows around the world shows the weight of Europe (EU and close associates) in the world. Without a doubt, Europe remains a prosperous area still at the top in the international division of labour, due to its specialization in both medium and high technological goods and knowledge-intensive services as well as to the concentration of top level functions in global value chains, as illustrated by the importance of financial and commanding functions in major European cities.

At the same time, European decline is evident and will continue in the next decade, whatever the types of relations considered. The decreasing weight of Europe in the world goes hand in hand with the shrinkage of its influence in most parts of the world. Consequently, its sphere of influence is more and more limited to its neighbours. Hence, we can define a functional Europe that goes beyond the limits of ESPON to include neighbouring countries from the east (former USSR), south-east (Turkey) and south (northern Africa).

The functional weight of Europe in the world certainly supports the EU as a global political actor. This results in an active diplomacy signing treaties all over the world, and increasingly with the neighbourhood.

In this chapter, we first examine Europe in a comparative perspective, according to the official EU criteria (competitiveness, cohesion, sustainability). Secondly, we assess its weight and position in the world in a long term perspective. Finally, we analyze the geography of Europe's functional and political relations with the rest of the world.

2.1.1. The European space in a comparative perspective: competitiveness, cohesion and sustainability

In this section, we consider the political objectives of the European Union in a comparative perspective. The comparison between the ESPON space and other developed areas of the world is made according to the EU's official goals, namely competitiveness, social and territorial cohesion, as well as environmental sustainability. This comparison focuses on ASEAN+ 3 and NAFTA (WP1): does the EU perform better in these areas than other comparable large geographic ensembles?

Overall, the EU performs quite well in all dimensions considered (table 2): it is a wealthy area, strongly involved in the knowledge-based economy, with a high level of education. Its main weakness compared with other areas comes from its ageing population, which notably results in lower employment rates, although this can also be explained by lower employment rates in the old active ages. It is also characterized by very good average indicators of social well being, as illustrated by high life expectancy, low infant mortality rate and high literacy rate. Finally, in many indicators of sustainability, the EU performs quite well, notably with much lower CO2 emissions and energy consumption than the NAFTA, with similar levels of wealth.

However, great disparities are observed between the territories of the three regions for many of these indicators, notably in terms of GDP per capita (figure 2). In general, territorial inequalities are much higher within ASEAN+3 than in the other two macro-regions, notably because of significant international differences, but also because of increasing intra-national inequalities to the benefit of coastal metropolitan areas more involved in the global economy, such as in China. Indeed, while international inequalities have decreased due to high rates of growth in developing countries of ASEAN+3, internal disparities have dramatically increased in these same countries.

Area	Indicator	1991			2007		
		NAFTA	EU	ASEAN+3	NAFTA	EU	ASEAN+3
Importance	GDP PPP (billions of US \$)	6970	8016	4557	16367	17536	10387
	Population (million inhabitants)	366	484	1771	441	506	2072
Competitiveness	GDP per capita (\$)	19034	16557	2573	37152	34649	5013
	Rate of Internet users (%)	-	-	-	61	60	20
	Rate of mobile phone subscribers (%)	-	-	-	75	121	67
	Expenditures on R&D in share of GDP*	-	-	-	2.11	1.35	2.25
	Students (%)	-	-	-	7.4	6.4	8.1
	Employment rate	57.9	53.17	68.68	59.54	53.37	66.24
	Median age (years)	29	35	24	34	39	29
Social cohesion	Life expectancy (years)	75	74	66	78	78	72
	Child mortality (per 1000 births)	18.9	10.1	36.9	8.6	4.5	18.6
	Literacy rate	95.2	97.7	81.5	97.0	98.6	92.0
	HDI	0.78	0.75	0.54	0.84	0.83	0.64
Territorial cohesion	Coef. Var. GDP PPP per capita	0.53	0.73	1.72	0.51	0.64	1.40
	Coef. Var. Child Mortality	0.77	0.40	0.77	0.50	0.48	0.86
Sustainability	CO2 emission per capita (t)	15.5	8.8	2.5	15.6	8.0	4.5

Table 2 Comparison between the EU, NAFTA and ASEAN+3 in competitiveness, social cohesion and sustainability

As for the comparison between the US and the EU, the description of multi scalar inequalities in the long run does not lead to straightforward conclusions (WP5). Territorial inequalities show different dynamics according to the period, the scale and the space considered. First, for both the US and the European space, we observe a convergence until the 1970s, marking a clear break on both sides of the Atlantic Ocean. The fordist period – from the 1950s to the 1970s – has been one of catching up for backward regions at both international level in Europe and national level in the US and in the most developed European nation-states. Second, after the mid-seventies crisis, the picture has become far more complex. In Europe, the process of convergence between poor and rich nations has been going on, resulting in diminishing gaps between European countries. This catching up process has been very clear for Eastern Europe, Ireland and Spain after 1995. The converging process between European nations is visible at regional scale since nearly all regions of the above-mentioned countries benefit from these good performances, albeit at various levels. The situation is not similar in the US, where

territorial inequalities at regional level (US State compared to NUTS1 level in Europe) are more limited. In contrast with Europe, we observe a divergence trend in the US during the last two decades, with higher growth rates in the most prosperous agglomerations, a process generally known as *metropolitanization*. This process is not visible for Europe as a whole because of diverging national performances, but is clear within European nations, where the biggest urban areas – in most cases the capital cities – have generally performed better than the others. This process is more intense in the nineties and seems to slow down or even disappear in the years 2000, except for Eastern and Nordic countries.

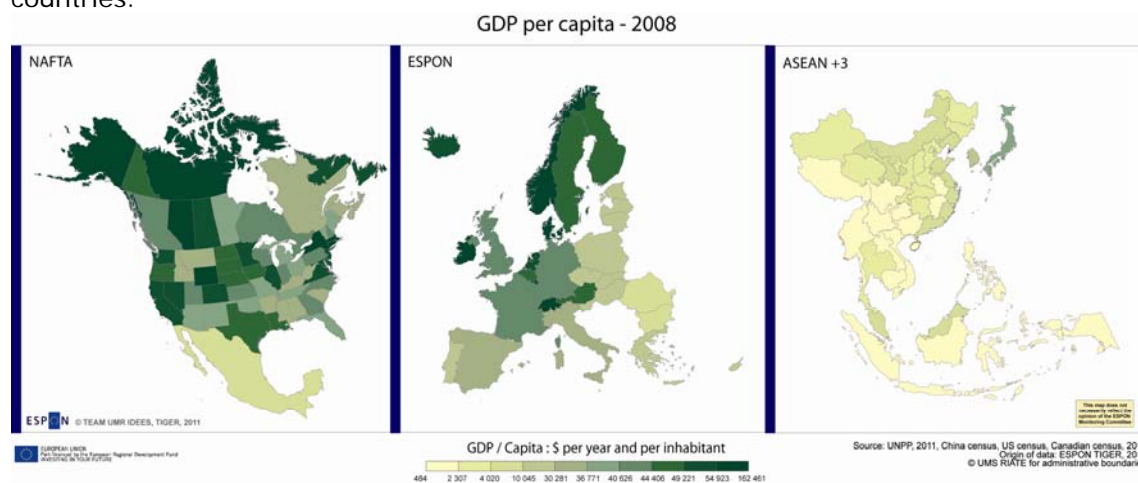


Figure 2. GDP per capita in 2008

Life expectancy is an interesting indicator because it reflects both the social and health situation of people in the different countries and the efficiency of the health systems. Moreover, it is not fully correlated with the level of wealth: beyond a certain level of GDP per inhabitant, the health situation is no more correlated to the GDP per inhabitant.

As for the other indicators, the mapping of life expectancy at birth in the three regions in 2000 highlights marked differences: NAFTA and ESPON show quite similar values, except in some Eastern European countries (Estonia, Latvia, Slovenia, Romania and Bulgaria). However, the variation of values in NAFTA and ESPON regions shows a spatial structure quite different and more “organized” than for the variation of GDP per capita. In NAFTA, there is a global decrease in life expectancy from north-west to south-east, where social disparities are high. In the ESPON region, a decrease can be observed from south-west to north-east with the exception of Scandinavian countries. In ASEAN+3, the situation is quite different: the majority of the spatial units show relatively low values in terms of life expectancy. Apart from Japan, where life expectancy reaches the highest level in the world, the highest values in these regions are similar to the lowest values in NAFTA and ESPON.

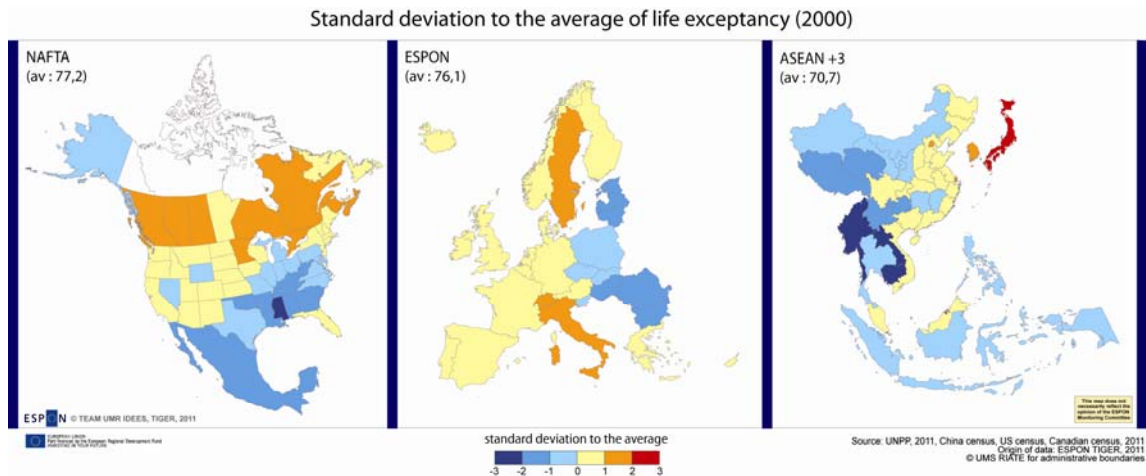


Figure 3. Life expectancy in 2000

Another interesting indicator reflecting the sanitary situation of a territory is infant mortality. It is an alternative indicator to measure the well-being (OECD, 2006), as well as the ability of health care systems to prevent diseases of mothers and children. The graph of the evolution of this indicator between 1980 and 2009 shows that the EU always has the lowest infant mortality rates (figure 4). Moreover, the situation is still improving. Overall, those two indicators show that the EU performs relatively well in health, which is an element of social cohesion. In addition, infant mortality rates show lower territorial disparities in Europe than in the other areas, although it has increased in some Eastern European countries because of stagnation in infant mortality.

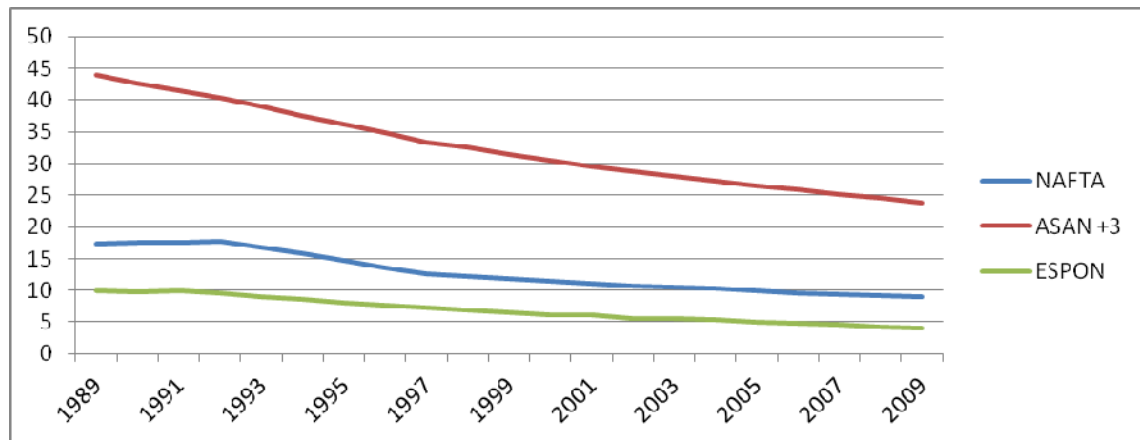


Figure 4. Evolution of infant mortality rates per 1000 live births (1989-2009)

The environment is of major concern to the EU, which has been a strong regulatory power in this area. An indicator that could allow us to measure the impact of each region's efforts in this matter is the ratio between CO₂ emissions and GDP. It could be understood as the quantity of CO₂ a territory needs to reject to produce 1\$ of GDP. In the three regions, the GDP has increased over the period and CO₂ emissions have increased accordingly: in absolute terms, they have been multiplied by 2.3 in the ASEAN region, by 1.2 in the NAFTA region, and have decreased in the ESPON region (x 0.9). Consequently, CO₂ emissions by GDP evolution are quite different in the three regions (base 100 in 1989). ESPON and NAFTA need less and less to reject CO₂ to produce GDP, but the decrease has been more pronounced in the ESPON space, as a result of progress

in energy efficiency. ASEAN emissions by GDP are quite irregular but are globally stable over the period. Those figures could be interpreted as a consequence of the great efforts made by the ESPON space to reject less CO². However, one should not forget that the offshoring of manufacturing activities toward the developing ASEAN+3 countries or to the margins of ESPON or NAFTA regions also contributes to partly reject... CO² emissions outside those two regions. Moreover, CO² emissions per capita in the ESPON territory (0.8 kT per capita in 2007) are much lower than in the NAFTA (1.6 kT), but still twice as much as in ASEAN+3 (0.44 kT).

2.1.2. Europe as a global yet declining power

Many studies have highlighted the declining weight of Europe in the world population and economy. In 1950, the whole of the future EU-27 represents around 15% of the world population and 28% of the world GDP (Maddison, 2011). In 2010, the figures for the same geographical ensemble amount to respectively 7% and 18%. This decline should continue in the next years. However, the EU as an institutional body does not decline at the same pace: since 1957 and the birth of the European Economic Community (EEC), the enlargement of the EU has made it possible to maintain its weight around 6% of the world population and 20% of the world production (Grasland *et al.*, 2007). In this section, we will focus on Europe's position in the world flows, with respect to trade of goods and services, foreign direct investments, human and knowledge flows. As far as possible, we will assess this position on long term trends.

Europe as a central place: A nuanced view upon the European decline as an economic power

At global scale, there is a global economic shift from the “old core countries” of Europe, Northern America and Japan toward Eastern Asia, especially China (Table 1) (Dicken, 2003). The share of Western Europe and Northern America in world trade has dramatically dropped from the sixties to the present: while the former has continuously declined from 29 to 21% of interregional trade, the latter has seen its share decrease from 20 to 14% in the same period. If we consider the current territory of the EU, together with Switzerland, Norway and Iceland, it accounted for 22% of the inter-block trade around 2007 vs. 28.3% in 1968 (WP 7). Over the same period, the internal trade in this area decreased from 28 to 24% of the total world trade. Despite this moderate decline, the EU is still by far the first trade power in the world, before NAFTA, which accounts for 15% of the interregional trade, Japan, Korea and Taiwan with 12%, and China with 11%. The EU as a major trade power is not an abstract idea because the communitization of trade policies has gone very far and the EU speaks with one voice in trade negotiations, notably in the World Trade Organisation (WTO). As for Northern America, this decrease is much more pronounced as a share of exports than for imports, resulting in an increasingly negative trade balance. Japan and the so-called new industrialized countries of Asia have more complex evolutions: they nearly double their share of world trade to reach 17% in 1995, before dropping to about 12% in 2009. In Eastern Asia, China has been the most growing country from 2% of world trade in 1968 to nearly 14% of the world interregional trade. Interestingly enough, outside Eastern Asia, the so-called emerging countries have seen their shares in interregional trade stagnate rather than increase. The share of Latin America has slightly grown during the last two decades, while the share of Brazil alone has remained around 1% of the total world trade (intraregional trade included) between 1990 and 2009. Southern Asia has been more dynamic and nearly doubles its share in interregional trade to reach 3.2% in 2009. But here again, if we consider only India in total world trade, its weight has remained quite low, around 1.2% in 2009. As for Russia, its weight in trade has increased from 1.5 to 2.5% between 1994 and 2009, in parallel with the evolution of gas and oil prices. Hence, we can hardly speak about BRIC countries outside China because the three other large emerging countries still play a modest role in the global flows of goods, services or FDI.

	1968	1978	1988	1995	2005	2009
Western Europe	29,4	26,2	24,2	23,5	22,4	21,2
Central and Eastern Europe (former USSR included)	5,3	5,2	4,1	4,8	7,0	7,7
Western Balkans and Turkey	1,7	1,5	1,8	1,5	2,0	2,1
Northern Africa and South East Mediterranea	3,6	4,3	2,9	2,6	2,6	2,8
Middle East	3,5	9,3	4,8	3,6	4,9	5,5
Subsaharan Africa	5,8	4,9	3,0	2,1	2,4	2,7
Northern America and Mexico	19,8	17,0	19,4	18,1	15,6	13,8
Latin America	7,2	6,4	4,6	4,4	4,3	4,9
China	1,9	2,1	4,1	6,3	11,3	13,7
Southern Asia	2,3	1,5	1,7	1,7	2,6	3,2
Japan, Korea, Taiwan	9,0	11,7	16,9	17,1	13,2	12,1
Rest of Asia	3,9	4,3	5,2	8,1	6,7	6,9
Australia, New Zealand	3,1	2,2	2,5	2,3	2,0	2,2
Rest of the world	3,6	3,6	4,8	3,9	3,0	1,2
Total	100	100	100	100	100	100

Table 3 Share of the different macro-regions in interregional world trade, 1968-2009.

Source: Chelem, 2011

The decline of Europe is also highlighted by the geographical reshaping of its power in terms of trade (figure 5; WP 7). We can observe that Western Europe's influence, measured as its share in the trade of macro-regions over the world, has declined in all parts of the world at a dramatic pace, notably in almost all Asia and in Africa. Basically, the influence of Europe has shrunk toward the neighbourhood, with a shift toward Eastern Europe and the former USSR, after the fall of communism.

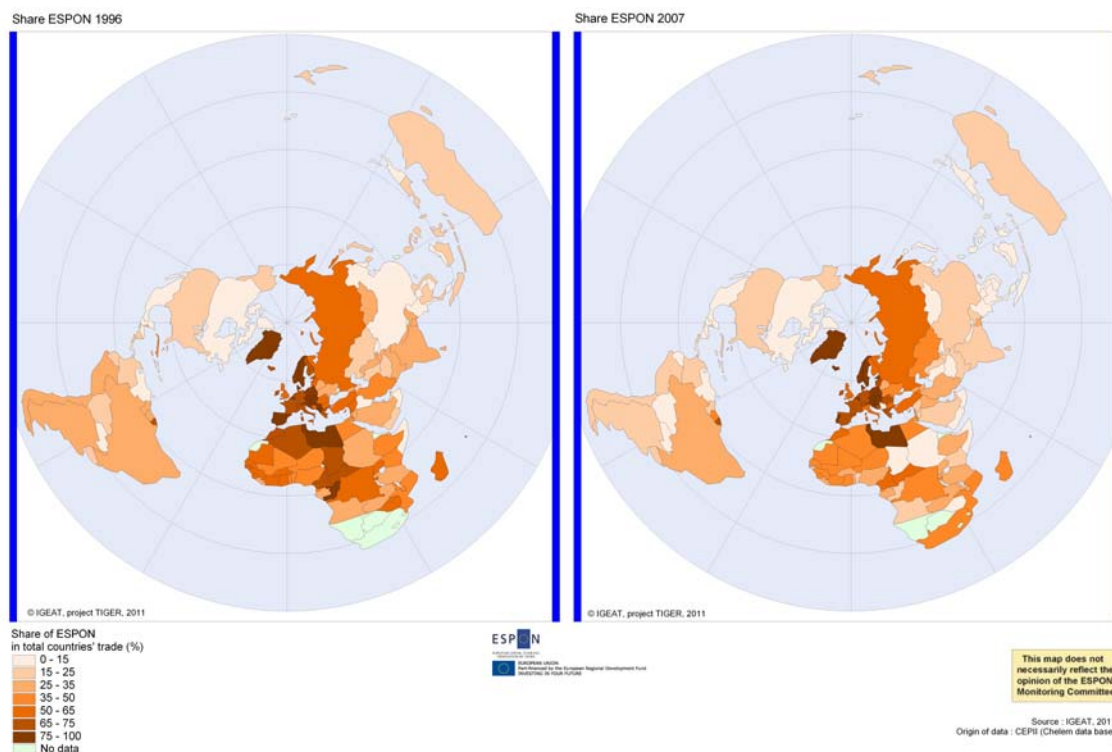


Figure 5. The weight of Europe (ESPON) in the trade of countries, 1996 - 2007

Source: IMF, 2011; Chelem-CEPII, 2011

That being said, Europe in general keeps a high position in the international division of labour, as illustrated by figure 6. On the left side, countries are mainly specialized in food and raw materials. At the bottom, we find countries predominantly specialized in labour intensive products, mainly textiles but also assembling electronic products. At the top right end of the graph, we find countries specialized in medium and high technological manufacturing goods, such as machine tools, scientific instruments, chemical products or automotive industry. This particularly concerns the most developed economies such as the US, Western European countries, Japan and South Korea. Hence, the idea that Europe is not only losing labour-intensive industries but also high technological production and knowledge-based industries should not be overstated (OECD, 2007; Grossman & Rossi-Hansberg, 2008; Baldwin, 2006). Although there is a quantitative shift in world trade towards Eastern Asia for nearly all types of products to different degrees, “old core countries” remain highly specialized in the most technologically advanced segments of production, and, more particularly, Europe’s position has been quite stable in the international division of labour (CEPII, 2006; Grasland, Van Hamme, 2010). It is also worth noticing the contrast between the US and Europe/Japan: while the first has negative balances in all sectors – yet less in the most technological ones –, Europe and Japan remain positive in medium and high technological segments (automotive, machinery, chemical industries) (WP 7; Vanderमotten *et al.*, 2010).

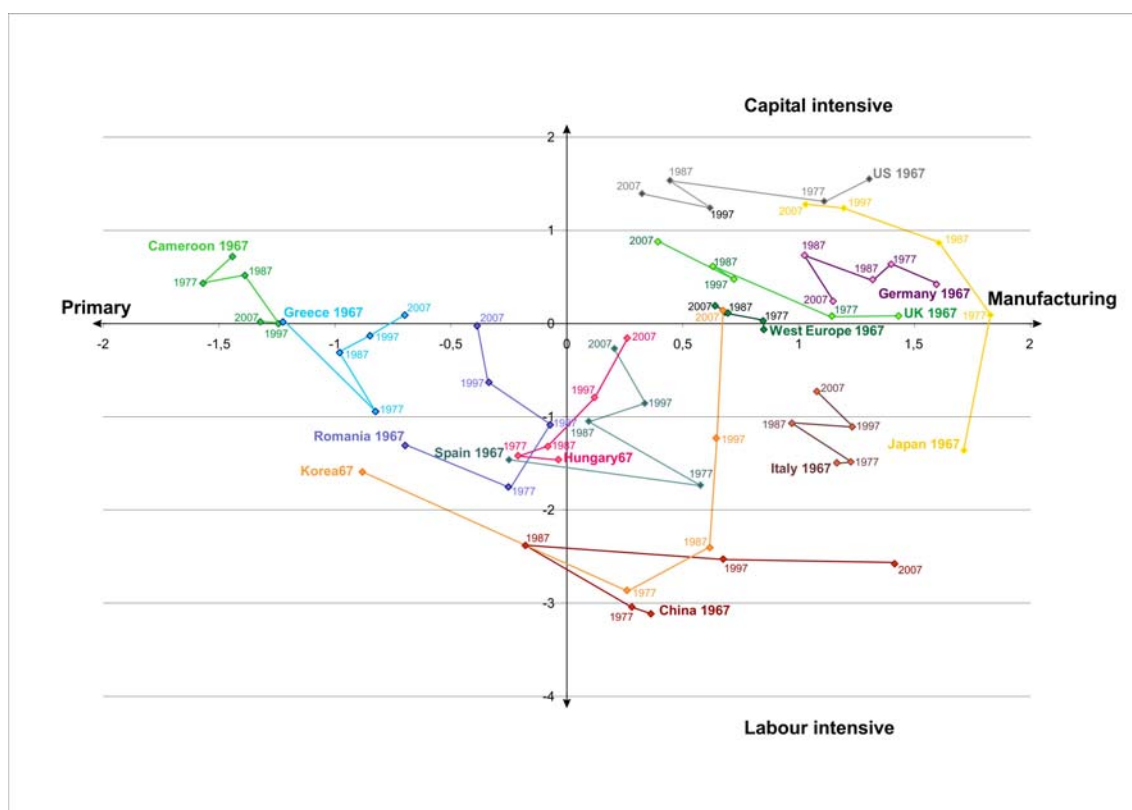


Figure 6. Permanencies and changes in the international division of labour, 1967-2007

Source: Chelem, 2011; EuroBroadMap, 2011; Van Hamme, Pion (2012)

This high position of Europe in the international division of labour can also be observed in the trade of services. Though the EU and associates have in the long run declined in the world trade of services, they remain by far the first power for the trade of services: if intra-EU trade is excluded, the EU represents around 26.5% of the trade of services in 2008-2009, a stable share until 2004, to be compared with the 22% of NAFTA (24% in 2004) and the 5% of China (3.8% in 2004). Moreover, EU’s competitiveness has

remained very high, with a trade balance of services around 7% of all EU trade of services in 2008-2009, vs. 9% for NAFTA, while China and developed Asia keep negative balances in services. Hence, to a certain extent, the declining weight of EU in trade of goods is mitigated by stable performances in the trade of services.

Beyond trade, Europe is still a major economic actor because of the importance of European firms and the flows of capitals invested in or by European economic actors. In 2008, 55% of the world's stock of investments originated from Western Europe, which attracted 46% of such investments. In contrast to trade, no decline is observed in the long run: in 1973, the figures were respectively 40% and 37% of the world's stock investments (UNCTAD, 2010). If we consider flows of investments rather than stocks, in the 2006-2008 period, the EU (with Switzerland and Norway) accounts for 39% of outwards and 24% of inwards of interregional flows. In comparison, Northern America is the first pole of attraction with 30% of interregional inwards flows but 24% of outwards flows, far behind Europe. The Asian powers perform much worse: China represents 10% of inwards flows, vs. 1% of outwards flows; Japan, 8% of outwards flows. The weight of European firms in the global economy is thus obvious: Western Europe concentrates 40% of the headquarters of the 500 biggest world firms, before Northern America and Japan, with respectively 33 and 15% in 2006 (Forbes, 2009; Vandermotten *et al.*, 2010).

Finally, Europe is also a major global financial actor accounting for a quarter of the world market capitalization (in stock exchange), vs. the US with 35%, and for 45% of the turnover in the banking sector, vs. the US with 20% in 2011 (Forbes, 2011).

Europe is a very attractive place

For centuries, Europe has been facing mass emigration, mainly to the Americas. The situation has changed since the 1960s, when Europe became attractive to immigrants from third world countries. At that time, human flows from Southern Europe were replaced by others, mainly from Europe's neighbouring countries, such as Northern Africa or Turkey (Medina-Lockhart *et al.*, 2004). In the nineties, the geographical pattern of migration has also considerably changed. First, the fall of communism gave rise to new migratory paths from Eastern to Western Europe, notably Germany. Second, traditional emigration countries in Southern Europe – Portugal, Spain, Italy and Greece – became countries of mass immigration. Third, the migrants' origin diversified, coming from all over the world, even if the neighbourhood remained the first source of immigration (WP13).

In the context of globalized human flows, one of the major issues for Europe is to attract highly qualified labour (WP11 and 13). This specific migration plays a predominant role in many respects. Demographic trends might result in shortage of qualified labour, at least in some professions. Also, highly skilled labour is of utmost importance in knowledge transfer, notably within major transnational firms' networks. Let us briefly examine the situation in the poles of the Triad (the EU-27, the USA, Japan). The share of immigrants with tertiary education has increased in the US and Europe between 2000 and 2008 (Table 3), but remains in the US more than twice as high as in the EU-15. In Japan, the share is almost negligible in comparison to the other regions. On the labour market, the number of immigrants in high-skill jobs (11.5%) and professional occupations (13.3%) is lower than in the EU-15 employment as a whole (16.2% on average). This might reflect the fact that migration to Europe in particular is more often of lower skilled nature and that qualifications are not easily transferred. Overall, Europe still lags behind the US in terms of high-skilled immigration, but performs better than Japan. However, the trend of high-skilled migration to Europe is positive since Europe has displayed stronger growth than the US in both absolute and per capita terms.

Triad Region	Immigrants with tertiary education (per 1000 inhabitants)		Immigrants with secondary education (per 1000 inhabitants)	
	2000	2008	2000	2008
EU-15	3,052,162 ¹ (9.9)	5,787,700 ² (16.3)	3,878,397 ¹ (12.6)	10,273,200 ² (28.9)
EU-27	NA	6,207,700 ² (12.7)	NA	11,403,000 ² (23.4)
USA	5,862,756 (20.8)	8,638,275 (28.4)	8,359,370 (29.6)	NA
Japan	278,277 (2.2)	NA	410,453 (3.2)	NA

Table 4 Well-educated immigrants toward the Triad, 2000 and 2008

¹Immigrants from countries outside Europe

²Immigrants from countries outside the EU

Source: 2000 round population census from OECD (2010c); 2008 round population census from Eurostat (2010); US MPI (2010)

In their need for highly qualified labour force, European countries also rely on students from third countries (WP 14). According to the OECD, over the last three decades the number of international students has significantly grown in absolute terms in the world. They were 0.8 million in 1975, roughly 3 million in 2007 and 3.3 million in 2008. This tendency accelerated at the beginning of the 1990s and even more in the 2000s (OECD, *Education at a Glance*, 2009). Without consideration of intraregional flows, the ESPON space as a whole attracted 35% of international students in 2006-2008, North America 21.9% and Asean+3 only 2.9 %. These figures have significantly changed in the 2000s. In 2001-2003, for the same geographical ensembles they were as follows: 34.1% for ESPON, 27.2% for North America and 1.6% for Asean+3. When looking at the geography of Europe's attractiveness in students' flows, we observe a decreasing attractiveness of Europe in many countries, especially in Africa, in the Mediterranean basin, and in the former USSR (WP14). Unmistakably, what was traditionally a preserved area for Europe has become an area of competition to attract highly skilled young people who think they will have more opportunities in the US labour market than in Europe.

Looking at the future: a fragile position in the knowledge economy?

Knowledge has been the prominent concern for many years within the European Union (EU) (Kale & Little, 2007) (WP11). The development of a European "knowledge economy" has been at the heart of EU's economic policy since the launching of the so-called "Lisbon strategy" in March 2000, confirmed by the EU 2020 strategy. We will thus focus on the position of Europe as a leading knowledge-based economy in relation to the United States and Japan, usually known as the Triad (WP11). This comparison leads us to the following conclusions (Table 5):

- Europe is lagging behind the other two Triad regions in terms of investments in science and technology, and the gap is larger for business-related indicators than for publicly funded R&D. Japan reaches 3.5% of the GDP in R&D and the US around 2.8%, but this ratio stagnates around 1.8% in the EU-27 (OECD, 2010). In the world's total R&D, the share of EU-27 has decreased from 26.1% to 23.1% within some years, mainly due to China's high level of growth which has increased from 5% to 8.9% during the same period.
- Europe lags behind the other two regions in terms of innovation in science and technology as patent statistics show. If, in 1997, EU-27 accounted for 33% of high value patent grants, this share has dropped to 28.7% in 2008.
- Europe is increasing its competitiveness on the global market for high-tech exports, whereas both the US and Japan have lost market shares. Even so, Europe still lags behind the US and Japan in per capita terms.

- Although the absolute number of articles published is higher in Europe, the number of publications per capita is lower.

	Gross R&D		High-value patent grants by the USPTO		High-tech export*			World scientific publications**		
	2002	2007	1997	2008	1997	2003	2008	1995	2000	2008
EU-27	26.1	23.1	33	28.7	16.8	17.6	17.4	30.6	41.7	26.1
USA	35.1	32.6	33.5	30.9	23.4	16.8	13.6	30.2	36.9	22.2
Japan	13.7	12.9	26.8	27.5	14.7	10.6	8.1	7.3	10.7	5.3
Rest of the world	25.1	31.4	6.7	12.9	45.1	54.9	60.9	31.9	35.9	46.4
	100	100	100	100	100	100	100	100	100	100

Table 5 Market shares of the Triad poles for some indicators of knowledge

* From EU high tech exports are excluded Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta, and Slovenia, as well as exports among EU member countries. High-technology products include aerospace, communications and semiconductors, computers and office machinery, scientific instruments and measuring equipment, and pharmaceuticals.

** Science and engineering articles in all fields, ICI publications

Source: UNESCO (2010); NSF (2010)

2.1.3. Europe in the world: functional relations and political cooperation

The functional relations between the EU and the rest of the world

We characterize here Europe according to the nature and magnitude of its relations with the rest of the world. The political implications of these functional relations are of utmost importance: not all regions can be considered as strategic for Europe in terms of its functional links; in not all regions Europe has kept a strong functional influence. The objective is to integrate and synthesize the analyses that position Europe in the world according to human flows, trade of goods, firms, and knowledge. More precisely, we use data on migrations, students' flows, trade of goods and services, FDI, air connections, networks of firms in advanced producer services, maritime networks, flows of quotation in stock exchanges, and investment in real estate at the end of the years 2000, except migrations (around 2001) (see WPs 3, 7, 9, 10, 11, 13, 14, 15, 17).

Two perspectives are adopted here: assessing the position of world regions and countries by considering their importance and the nature of their relations for Europe; assessing the importance of Europe for world regions. In the former, we highlight the parts of the world that matter to Europe, while in the latter we focus Europe's influence in all parts of the world.

Figure 7 classifies regions according to the importance and the nature of their relations with Europe. We thus calculate the share of each region in the external relations of Europe as well as the specialization of this relation. Figure 7 shows the world regions that really matter to Europe: the size of the circle gives the average weight of each macro-region in the extra-continental relations of Europe while the colour is the result of a classification that takes into consideration the importance of these regions for Europe but also the nature of the links:

- First, Northern America is by far the most important region for Europe and the links mainly concern economic relations, especially those related to firms (networks of firms in advanced producer services or FDI). Trade in services is also specific, not the trade in goods. In contrast, transportation and human flows are in relative terms less important in the EU-NAFTA links, meaning that the share of NAFTA for Europe is lower than the average in these types of flows.
- Second, the neighbourhood regions are also of high importance for Europe (red on the map). In contrast with NAFTA, those areas have strong relations with Europe in human and transportation flows, and to a lesser extent in trade of goods, but they have a lower importance in most other economic relations (trade of services, networks of firms, FDI etc.). Though Sub-Saharan Africa is much less important for Europe than neighbouring countries, as measured by the share of this region in all relations of Europe, its relations with Europe are also focused mainly on human and transportation flows.
- Third, Eastern and Southern Asia (green) mainly have economic relations with Europe, but also send students to Europe. Eastern Asia distinguishes itself by more intense relations of trade in goods and services as well as FDI.

In figure 8, we move to the country scale: in each map, the colour represents the share of Europe in all sets of relations of each country; the size of the circles indicates the importance this country has for Europe. The last map is the average of all 5 types of flows. The main conclusion of these figures is that Europe's influence goes far beyond the institutional borders of the EU and its close associates. In particular, the impact of Europe is very high in the neighbouring countries. This defines a large functional Europe that includes Northern Africa (migratory flows, daily relations, trade), the near-East, Turkey in particular, and the former USSR Republics, mainly because of intense economic relations. Beyond this immediate eastern and southern neighbourhood, the importance of Europe for world countries is decreasing. For Sub-Saharan Africa, the importance of Europe is very heterogeneous from one country to another and from one area to another: Europe is still attractive and remains the main origin of inwards FDI, but the weight of Europe in this region has dramatically decreased in trade or migrations. Europe remains important for Northern America, especially when firms are considered (FDI and networks of advanced service firms). In contrast, the influence of Europe is quite low in Asia, in nearly all sorts of flows, except for students.

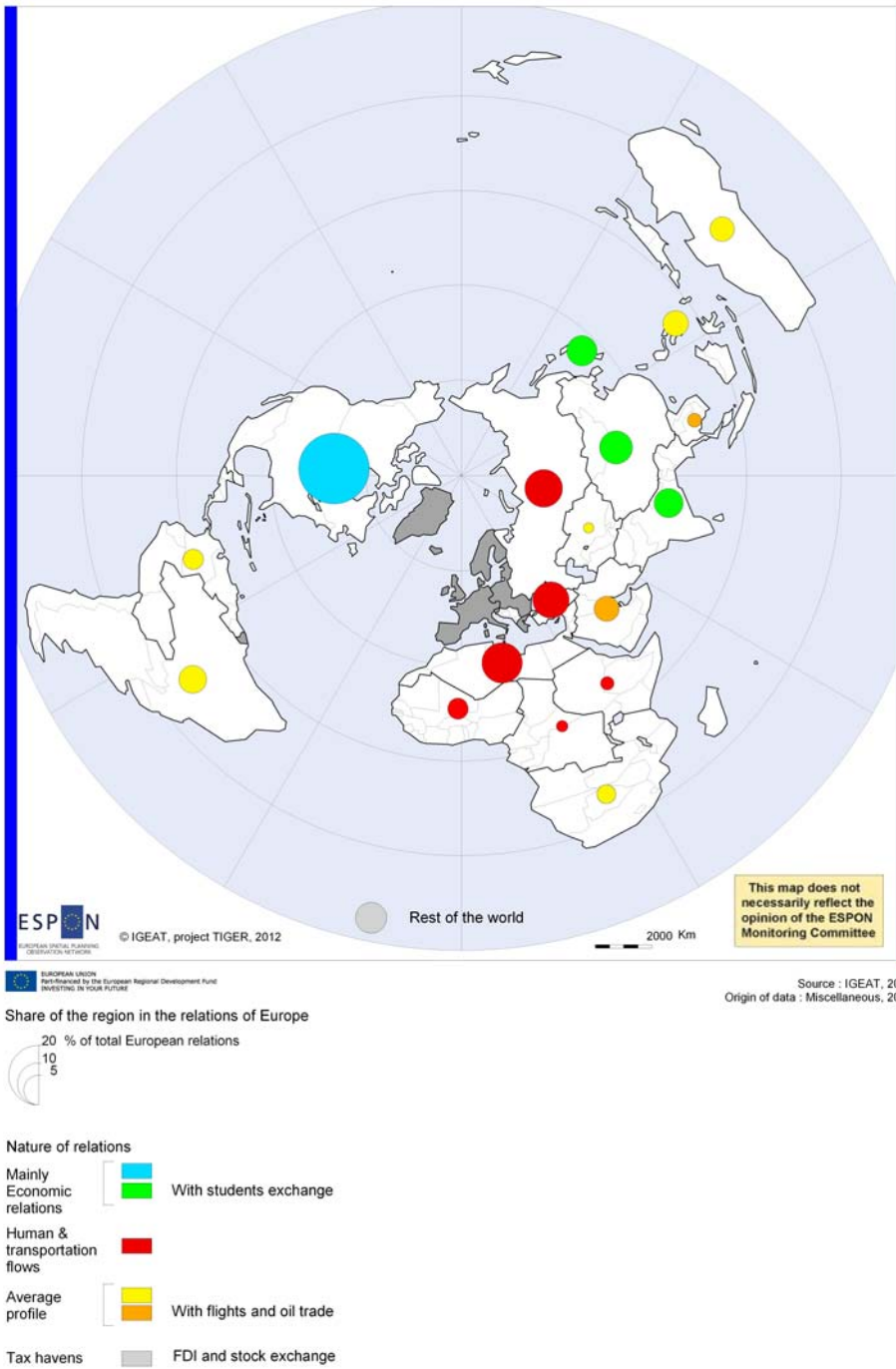


Figure 7. Regions of the world according to the importance they have for Europe and the nature of their links

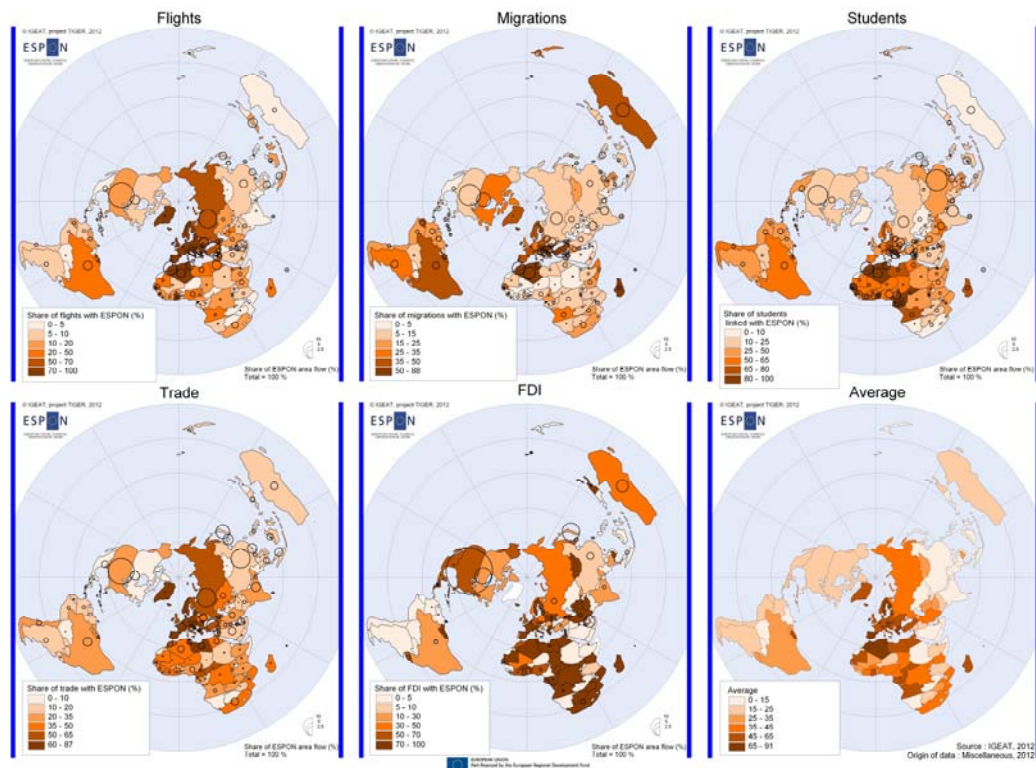


Figure 8. The weight of Europe in countries for various types of flows

The political cooperation of the EU with the rest of the world

In this final part of the chapter, we consider the status of the EU as an actor in international relations as well as the concrete configuration of its relations with the world (WP18). By considering the geography of its external political relations, we try to assess whether it is consistent or not with the geography of its functional relations.

First, the EU is an actor in international relations, playing a role at the global scale. Since the 1970s, many researchers have debated the nature of the European Union, especially in terms of its status as an actor in international relations (Hoffmann, Keohane, 1991; Moravcik, 1993; Lequesne, 1996). Some specialists of international relations continue to doubt the status of the European Union (EU), basing their assumption on an interesting argument: the EU is neither a state nor a polity and it cannot act rationally (Lavenex & Merand, 2007). In particular, various studies have come to the conclusion that the status of the European Community is fragile because of internal dividing lines between states and institutions or between European institutions (Abelès, Bellier, Mac Donald, 1993; Abelès, 1994; Mény, Muller, Quermonne, 1995). These conflicts are sometimes illustrated by incoherent discourses in certain domains. On the contrary, recent studies have assumed that the EU is an actor and have pointed to the fact that its uncertain status as a polity has been made clearer by the treaties of Maastricht and Lisbon (Bretherton & Vogler, 1999; Helly & Petiteville, 2005; Petiteville, 2006; Franck, 2008).

De facto, EU is an international actor because it has signed almost 800 bilateral international treaties with more than 220 countries and regional organisations since the 1950s. It tends to build and organize its relations with third parties in the same manner as member countries organized their mutual relations in the framework of the European integration. Besides, voluntarily deprived from the possibility to use the force, the European Union tends to build its external relations and security on a legal basis and

mutual obligations. The negotiation and signature of international treaties is then considered an efficient mean to disseminate commonly accepted norms. By accepting these norms, the signing partners become more predictable.

The number of bilateral international treaties signed by the European Union has been steadily growing over time. The growth accelerated in the 1990s. This evolution may be due to the enforcement of the Maastricht Treaty which changed the political status and nature of the EU and turned it in a more visible partner. It may have been caused also by the rapidly evolving international situation after the end of the cold war and the collapse of the USSR. This evolution made the international situation more fuzzy and uncertain. It may have pushed many countries to sign international treaties in order to bring some kind of stabilization in international affairs. Besides, many new countries appeared at this moment (namely the former Soviet republics) which also started to sign treaties.

Second, the geography of international relations of the EU measured by the treaties signed highlights the growing importance of the neighbourhood, mainly in specific areas. The European Communities have started to sign international treaties in the year 1957. Since then, the importance of the neighbourhood has been growing. The neighbour countries are more and more numerous in the top list of partner countries (in terms of number of treaties signed) as time goes by: only 5 countries in 1957-1970, and 14 in 2006-2011. This reveals a regionalization trend based on the intensification of external political relations. In the total, the share of the neighbourhood in the total number of international bilateral treaties is pretty high: 46% in September 2011. However, without Norway, Switzerland and Iceland, the share of the neighbourhood falls to 25% of the total: 7% for the Mediterranean countries, 8% for the Western Balkans, 10% for the Eastern neighbours including Russia. Last, if one considers only the neighbour countries eligible to the neighbourhood policy (without Turkey, Russia and Western Balkans), the percentage is only 17%. Such a low percentage should make us cautious vis-à-vis the official European stances which present the neighbourhood as a priority for the EU.

The neighbourhood countries have signed bilateral treaties mainly in a few domains: external relations, foreign and security policy, fraud, justice and security, transport, free trade agreement. Indeed, we observe the existence of regional patterns of political cooperation. In the neighbourhood, the relative weight of "external relations", "foreign security policy", "justice and security" is higher than the world average, as well as the share of "Free trade", "R&D + Education" and "Transport" agreements. Besides, the importance of the security issue is higher than in any other part of the world.

Third, despite the complex political construction of the EU, permanently facing contradictory internal forces, the EU shows signs of consistency and coherence in its international relations though not always resulting in efficiency. Our analyses have pointed the high degree of coherence in the trade policy of the EU (WP18). On the one hand, official stances that insist on the neighbourhood as a priority do coincide with an active diplomacy in this part of the world, notably through the signatures of trade agreements with most neighbouring countries. Only Eastern partners have not signed this type of agreement with the EU, for complex reasons, among which the reluctance of Russia and its persistent influence in several former Soviet countries. On the other hand, the correlation between development aid and the existence of trade agreements is a sign of coherence between different forms of external action of the EU. In contrast, our analyses show that EU policy seems to be shaped rather than it shapes the reality, notably in the trade area. First, the EU does not seem to have the capacity to overcome resistances in the signature of commercial treaties, despite the fact that the EU is by far the most important economic partner for Eastern neighbours. Hence, the geography of the international treaties signed reflects to a certain extent the degree of willingness of the partners. Second, we highlight the low impact of trade agreements in the intensity of commercial flows between EU and third countries: while most Mediterranean countries have signed free trade agreements with the EU in the 2000s,

and some even before (Turkey is a part of the Custom Union since 1995), it has not reversed the declining influence of the EU in most of them. In contrast, the shift of EU trade toward the East has been achieved without any trade agreement.

To take another example, the EU seeks to secure its energy procurements at affordable prices. Consequently, the energy relations with the neighbourhood have been deepening in several steps since the 1990s. All the European initiatives in the neighbourhood prove that the European Commission is pretty single-minded with a spectacular continuity in energy external action whereby EU tries to disseminate its own norms, regulations and preferences. However, the outcomes of this policy are often thin and fragile:

- Most of the agreements signed are not legally binding.
- The only binding document signed by many countries in the part of the world is the Energy treaty Charter. But Russia, one of the most important partners of EU in this field, has decided to withdraw in October 2009. This is a major set-back which dramatically downsizes the impact of the principle of regional integration in the field of energy.
- A West-East gradient with decreasing levels of commitment and obligations: the level of integration is the highest in the Balkan countries; it is lower but growing in Moldova and Ukraine; with more distant countries (Kazakhstan for instance), the agreements signed are much less ambitious. They do not promote any legislation harmonization and propose only exchanges of information, regular consultation, cooperation to facilitate the development of new infrastructure, organization of joint seminars and conferences... without any calendar or road map and no real commitment.²

2.2. European territories in the global flows

Key findings

- European regions and cities are unequally open and embedded in the global economy;
- Though Europe as a whole stands high in the international division of labour and some convergence can be observed on the long run, European territories have diversified position in the global economy:
 - major cities have a high position in global networks. Cities show differences in their scale specialization (the extent of their networks) rather than in the nature of the functions in which they are specialized;
 - Two types of vulnerable territories can be identified: regions specialized in low functions in value chains, notably in south-eastern Europe; "in-between territories" specialized in medium technological segments suffer from both increasing competition of regions with lower cost of labour force and the difficulties to move up in the value chain as well as low control on value chains (Non metropolitan areas of Mediterranean regions and potentially of central-Eastern Europe);
- No simple relationship can be observed between openness/embeddedness in global networks and economic performances in the decade before the crisis.

² Memorandum of Understanding on Co-Operation in the Field of Energy between the European Union and the Republic of Turkmenistan, Achgabat, 28 mai 2008.

In this part of the report, we change the scale of analysis by highlighting dynamics within the European space. These dynamics are to be understood in the light of global and European trends identified in the previous chapters.

In this chapter, we use two different and complementary approaches: the first focuses on countries and regions, using the usual administrative constraints of the data; the second focuses on cities using data on global networks in which European cities are embedded. In both cases, the objective is the same: understanding the internal dynamics of Europe in relation to the links between European territories and the rest of the world. In contrast to most studies on the territorial impacts of globalization, we synthesize here a rich material that allows a systematic assessment of European territories in the global space of flows and networks. Previous studies sharing this objective have already drawn some important conclusions (DG Regio 2008; Capello *et al.*, 2010), especially that sectoral specialization is not the decisive factor determining regional success in the world economy. Hence, it appears very important to go beyond a sectoral approach and to directly assess the position in the world economy through their flows and through their role in the international division of labour.

Also, even though connections to the rest of the world may be correlated with better economic performance in general, this relationship is far from being strong and systematic. This is why we interrogate here this relationship in various ways.

2.2.1. European Countries and Regions in the international division of labour

The position of Europe as a whole in the international division of labour and in global value chains has been analysed in the previous chapter leading to important conclusions. First, the European territory keeps a very high position in the division of labour, selling goods with medium and high technological content, while buying raw materials, food products and low added value manufacturing goods. Second, when services are considered, Europe also plays a major role in the international trade and has a very positive balance, notably in services with a high intensity of knowledge such as financial as well as computer and information services. Third, in a context of globalization of value chains, Europe still concentrates commanding functions – measured through headquarters location – in increasingly spatially dispersed value chains.

This general picture hides the huge diversity within the European space as regards these three different aspects of the position of Europe in the international division of labour.

First, there are still differences among European countries according to their position and specialization in the world trade: Northern and North-Western Europe still focus on manufacturing technological productions, and South Eastern countries in more labour intensive industries (figure 6). In contrast to most Northern Europe, the evolution of the UK is similar to that of the USA with a clear deindustrialization process, resulting in negative trade balances in most manufacturing goods, while these countries remain specialized (in relative terms) in the most technological segments of production. As for Central-Eastern and Mediterranean countries, they occupy intermediate positions, except Greece which is still very specialized in non manufactured goods. In this respect, some southern countries such as Spain, Portugal – and to a lesser extent Italy – seem to occupy a difficult position in this division of labour, where they are unable to compete on the most technological productions with North European countries but also on the labour-intensive and/or medium segments with countries where labour is much cheaper (East European countries for automotive industry; clothing and textile with Asia...) (DG Regio, 2008). However, in a long term perspective, we can observe a convergence among

European countries: countries like Spain and Germany for example are much less different in 2008 than some decades earlier (figure 6). While less spectacular, the evolution of Spain is similar to that of South Korea: moving from raw material to more labour intensive industries in the first phase (1967-1977), and then rising in the value chain toward goods with higher technological content. This convergence also characterizes Central and Eastern European countries such as Hungary after the fall of communism.

Second, services also highlight contrasting positions of European countries in the international division of labour. Some European countries are specialized in services rather than goods in their international economic relations: Ireland and Luxemburg sell more services than goods while in Denmark, Iceland, Greece, Cyprus or Malta, trade of services represents more than half of their trade of goods, while this ratio is around 0.30 for EU as a whole. In contrast, all Eastern and Central European countries have the lowest shares of trade in services, except Estonia. If we consider big countries, we have a contrast between the UK, whose role in international trade is very much focused on services, and Germany, which sells high added value goods all over the world.

Moreover, European countries also differ in the types of services they sell to the rest of the world. Figure 9 groups together countries according to the type of services they sell to the rest of the world (such as finance, transportation etc). This typology confirms that European countries show differentiated positions in the international division of labour (figure 6). A first distinction is made between countries specialized in high level services (in hot colours) and the others. Among the former, Luxemburg, Switzerland and the UK distinguish themselves through their high specialization in financial services while Ireland is the first European exporter of computer and information services. The other countries (in yellow) have a more diversified range of high level services, and do not reach such high degrees of competitiveness in very specific high level services. In the latter group, the share of basic services (transportation, construction) is higher, but the green group is characterized by higher specialization in more knowledge intensive services while the blue group is specialized in basic services. As for Turkey, its specific position is related to exclusive specialization in transportation services.

Third, Western Europe still concentrates commanding functions at global level, as indicated by the fact that 39.8% of the headquarters of the 2000 biggest world firms were located in Western Europe in 2006. In contrast, Eastern Europe concentrates none of these headquarters.

Very roughly, we may distinguish 3 types of countries:

- i. Leading countries of North Western Europe and Northern Europe have very high positions in the division of labour, are specialized in services with a high intensity of knowledge, including finance, and still concentrate commanding functions of big transnational firms whose production is dispersed in complex value chains across the world. They distinguish themselves in their form of participation in the global economy, notably between service-oriented (e.g. the UK) and manufacturing (e.g. Germany and Italy) economies (WP7).
- ii. Mediterranean countries have converged towards the European average in their position in the international division of labour but still significantly lag behind. They certainly suffer from their "in-between position", in that they are not yet competitive enough on the most advanced segments of production of goods and services, and have also lost market shares on more labour intensive segments.
- iii. Central and Eastern European countries have rapidly converged to the European average since the fall of communism, some central European countries having benefited from huge investments in low, medium and even high technological goods. However, on the one hand, they keep a low position in the value chain in which they are embedded and notably lack any commanding functions; on the other hand, they increasingly suffer

from the competition of countries with lower labour costs on low and medium technological segments.

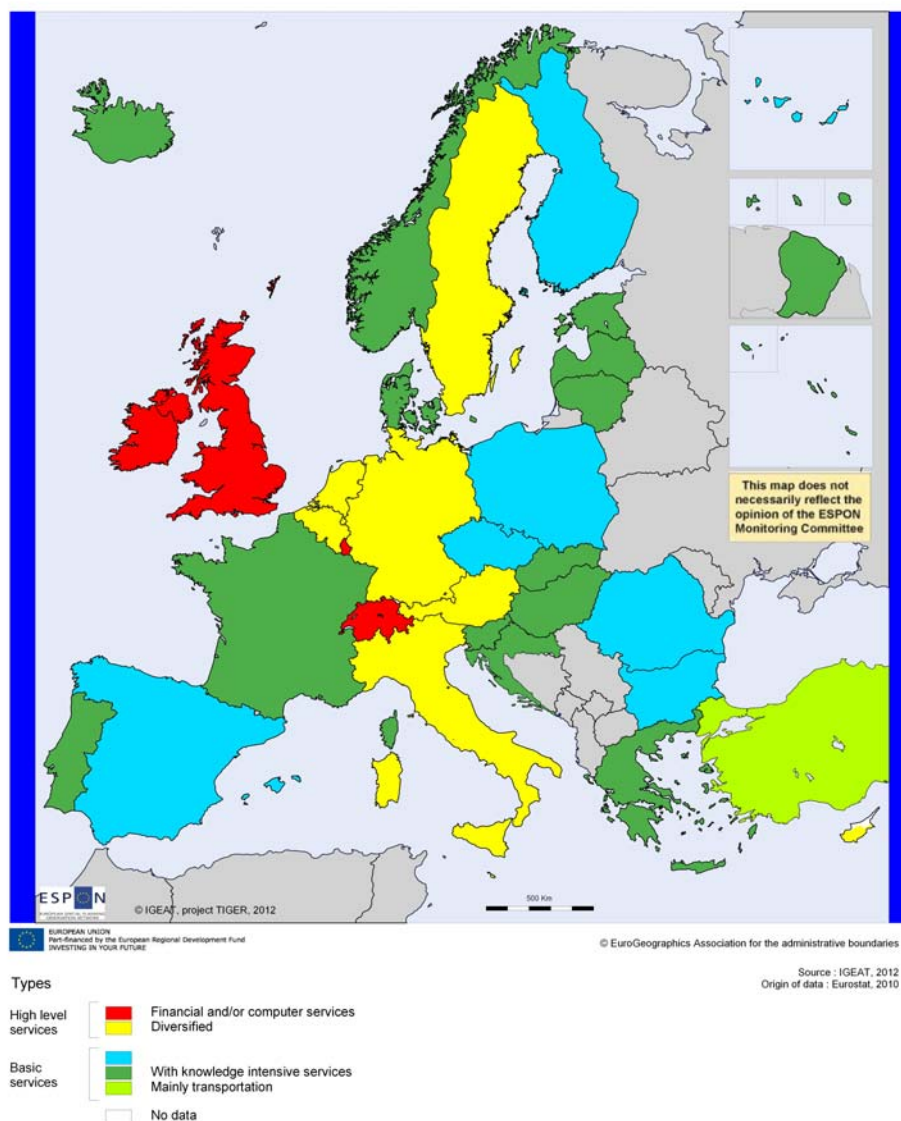


Figure 9. Classification of European countries according to the types of services they sell to the rest of the world, 2008-2010

This very general picture does not necessarily reflect the diversity of regional positions in the global trade flows (WP7). We now turn to this very important question.

The most important result is the evidence of a huge diversity in the openness to extra-EU trade as illustrated in figure 10. The figures vary from 0.1% in Corsica to 31% for Flanders. Hence, we can expect global trends to affect regional economies across Europe in a much differentiated way because of this huge variety in the participation in global trade. Of course, participation in global trade is only one way to take part in the global economy and we need other types of data to give a more complete picture of the regional participation in the global economy. However, many European regions are relatively closed to the global economy and many of those regions have indeed very limited relations to the rest of the world.

Beyond this diversity in the regional openness to trade, we must also underline the diversity in the regional geography of trade, synthesized in figure 11. The more or less global pattern of regional trade as well as the geographical diversity of trade is related to a number of decisive factors such as the historical relations, largely dependent on the national belonging of the regions, the presence of major hubs, notably ports and most of all the nature/specialization of the regional trade. Regions in red and blue are characterized by the strong orientation of their trade with European countries: countries in red distinguish themselves by a relative specialization toward Eastern Europe, including former USSR, while regions in blue mainly trade with Western Europe. Regions in pink, mainly located in the UK and Switzerland, can be named a global type through their strong orientation toward Northern America (12.4% while the average is 6.6%) as well as Asian regions. Their trade is thus oriented toward the other poles of the triad and Asian emerging markets. Though also less European, the orange group has specific relations with southern and south-eastern neighbourhood, that is the Middle East and Africa. It should be reminded here that most of these regions are relatively closed to extra-European trade. Finally, regions in green lie in between with an average orientation of their trade toward Europe, but also strong relations with remote developed countries of Asia and Northern America.

Figure 12 synthesizes the goods in which regions are the most specialized and competitive. It highlights a complex regional geography in which the old core/periphery pattern still seems to play a role: in most core regions of North-Western Europe, the most competitive sectors are chemical goods, machinery/transport or electronic goods, while in most peripheral regions light and food industry still dominate the pattern of trade. We also observe a link between specialization and the geography of regional trade: a number of regions have a global pattern of trade oriented toward the most developed or emerging markets because of their competitiveness in medium and high technological goods. In contrast, regions specialized in light industry are generally more oriented toward Europe and/or neighbouring regions. As far as metropolitan regions are concerned, they show a more global geography of trade despite the low level of competitiveness in most of the manufacturing goods. This is in line with the global orientation of their participation in the global economy in general and is probably due to their capacity to be competitive in some very specific highly technological goods, as shown in the case of London for pharmaceutical products.

We finally raise the question of the impact of the regional pattern of trade on competitiveness (WP7). We do observe a correlation between the global orientation of regional trade and the level of development without being able to identify the direction of causality. Yet, while results suffer from evident methodological issues, we found no evidences that neither better competitiveness in products with higher technological content nor a more global trade is related to better regional economic performance in the last decade. This last result is of course dependent on the focus on goods rather than services and thus would require a more global assessment of the relation between participation in the global economy and economic performances at city/regional level. Only when integrating the different approaches at regional and city level, we may give further evidence of the relationship between forms of regional participation to the global economy and cities/regional economic performances.

The diversity of regional positions in the international division of labour we observe through these maps largely results from their unequal position within commodity chains. This means that different regions have different roles in the productions within the same line of products (value/commodity chains). We illustrate this point through the analysis of specific commodity chains: the clothing industry (WP8.1) and the automotive industry (WP8.2).

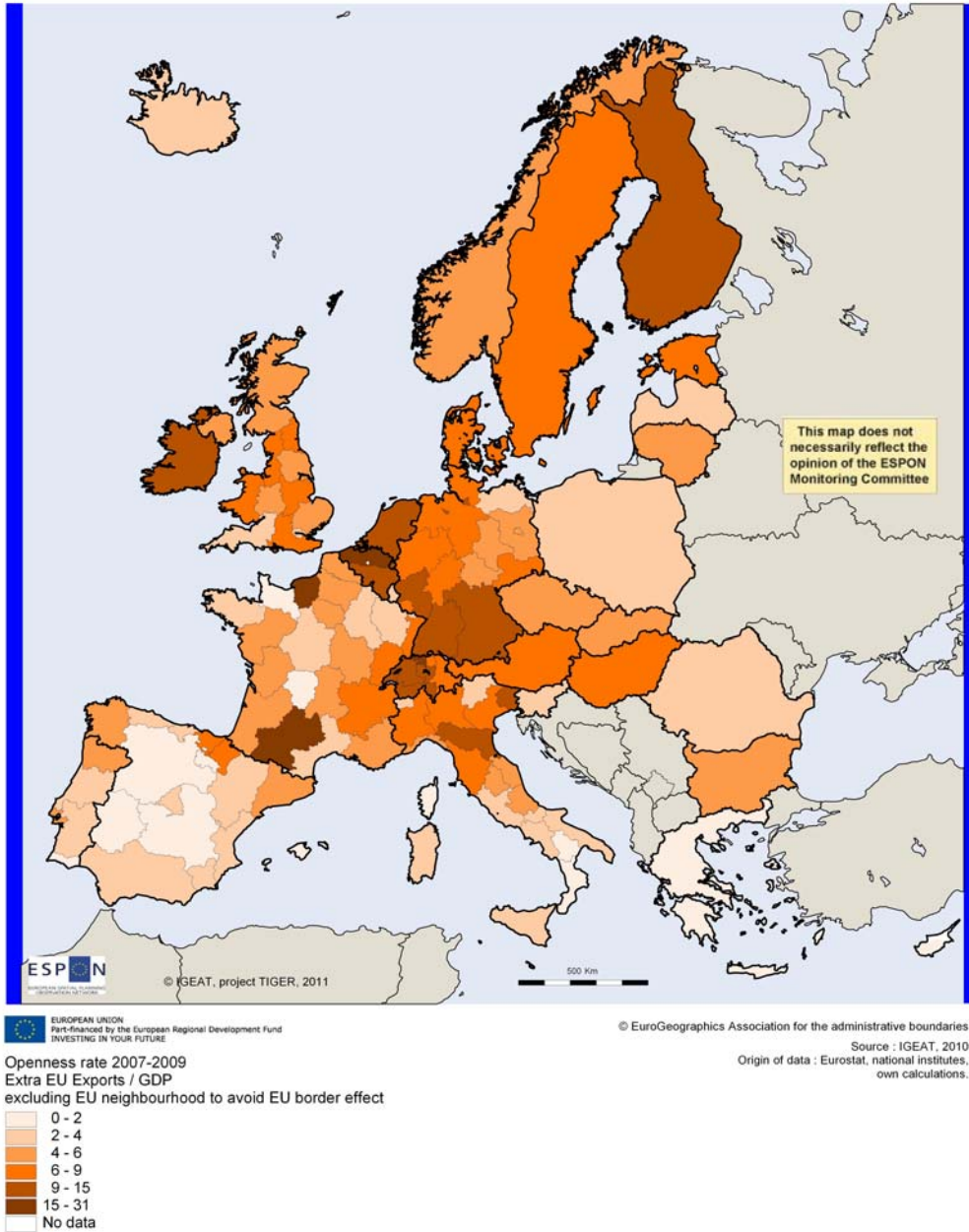


Figure 10. Openness to extra-ESPON and neighbourhood trade of European regions, average 2007-2009

Note: extra-EU and neighbourhood exports exclude all exports within the ESPON space as well as its immediate neighbourhood (Western Balkans, Near East, former-USSR and Northern Africa)



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Source : IGEAT, 2010
Origin of data : Eurostat, national institutes.

Types of geographical orientation in the trade of goods.



Figure 11. Typology of the geography of trade at regional and country level

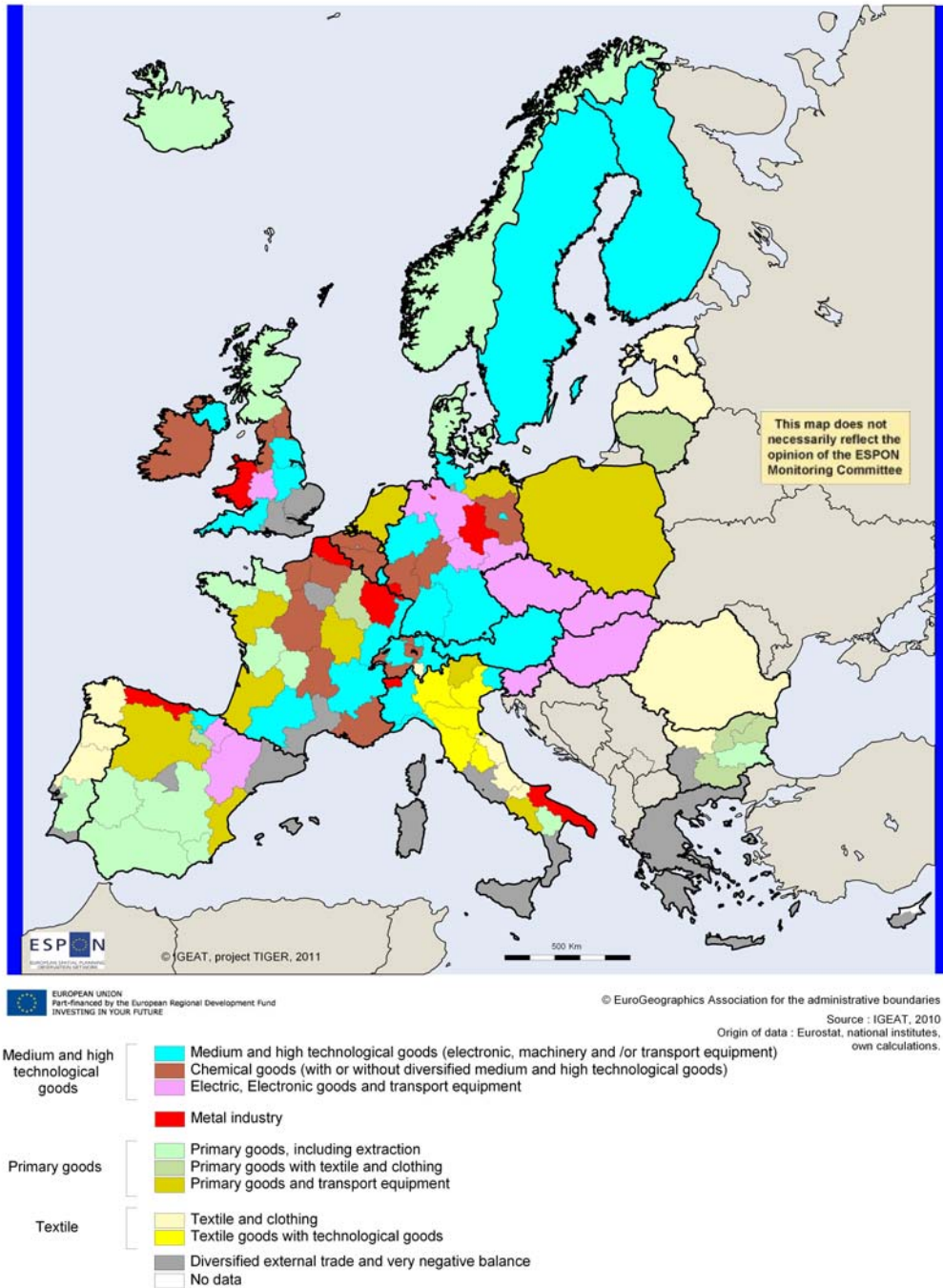


Figure 12. Typology of regions according to their specialization and competitiveness in the trade of goods

Note: regions and countries are classified according to their relative specialization in the different types of products as well as their trade balance in these types of products. It does not reflect the dominant specialization of the region/country but well the relative weight of each product as compared to the European average

In the clothing industry, the high concentration of power within clothing value chains as buyer-driven ones is on the top of the chain, where marketers, branders, manufacturers, and retailers compete with each other. The distribution of value is related to the following groups of activities: high value added activities are design and product development, distribution and marketing, while low value added activities are production activities (from assembly to full package production). The high value added activities require special competences and have high entry barriers because of the huge concentration of the top of the chain (Gereffi *et al.*, 2003).

At global scale, we observe a massive relocation of production toward eastern Asia in the last decades (Grasland, Van Hamme, 2010), that has been accelerated in the last ten years, when ASEAN +3 has increased from 35 to 47% of world interregional exports. In the same period, the EU has nevertheless maintained its global position around 6% of world exports, increasingly focused on luxury or high quality clothing. But at the same time, EU internal markets have faced increasing competition, mainly from Eastern Asia.

Within the Euro-Mediterranean space, there has also been a massive relocation of production. The process of diffusion toward periphery is shown by the geographical shift of export specialization in clothing for European countries since 1968 (figure 13). While countries of North-Western and Nordic Europe were already weakly specialized in clothing industry in 1968, Mediterranean countries – except Spain – benefited from a growing specialization in clothing until 1988, after which more peripheral countries of the Euro-Mediterranean space benefited from relocation, notably in the Balkans and in Northern Africa. Morocco, Tunisia, Turkey and some Eastern European countries reached their specialization peak in the clothing industry in 1998. In the next period, all European countries faced a decline in that specialization in favour of Southern and Eastern Asian countries. In this general picture, the position of Italy is atypical. On the whole period, Italy remains specialized and with positive trade balance in the clothing industry, in spite of a moderate decline since 1998. This illustrates the capacity of the dynamic clothing and textile clusters, notably in Italy, to remain competitive despite high labour costs. Indeed, at regional scale, the clothing industry is characterized by strong regional concentrations, despite the small size of production units. In the context of crisis faced by Europe's clothing industry, some “Marshallian districts” resist better than others although nearly all of them have lost employment and added value in the sector (DG Regio report, 2008). Several regional strategies can be distinguished in this crisis context. Economic diversification is of course the most efficient strategy: the Kortrijk area in Belgium for example has for long diversified its economic structure through a horizontal diversification to other sectors (such as furniture or agro-business) and, recently, toward business service activities (DG Regio report, 2008). But other regions have re-centred on design, conception or sales and almost completely abandoned production, as can be observed in some Italian districts or in the Hering-Ikast district in Denmark where production has nearly disappeared.

The European clothing chains thus shows a clear separation of tasks between Eastern and Western Europe. The high value added activities are located in the latter and the lower value added jobs have been relocated to the former.

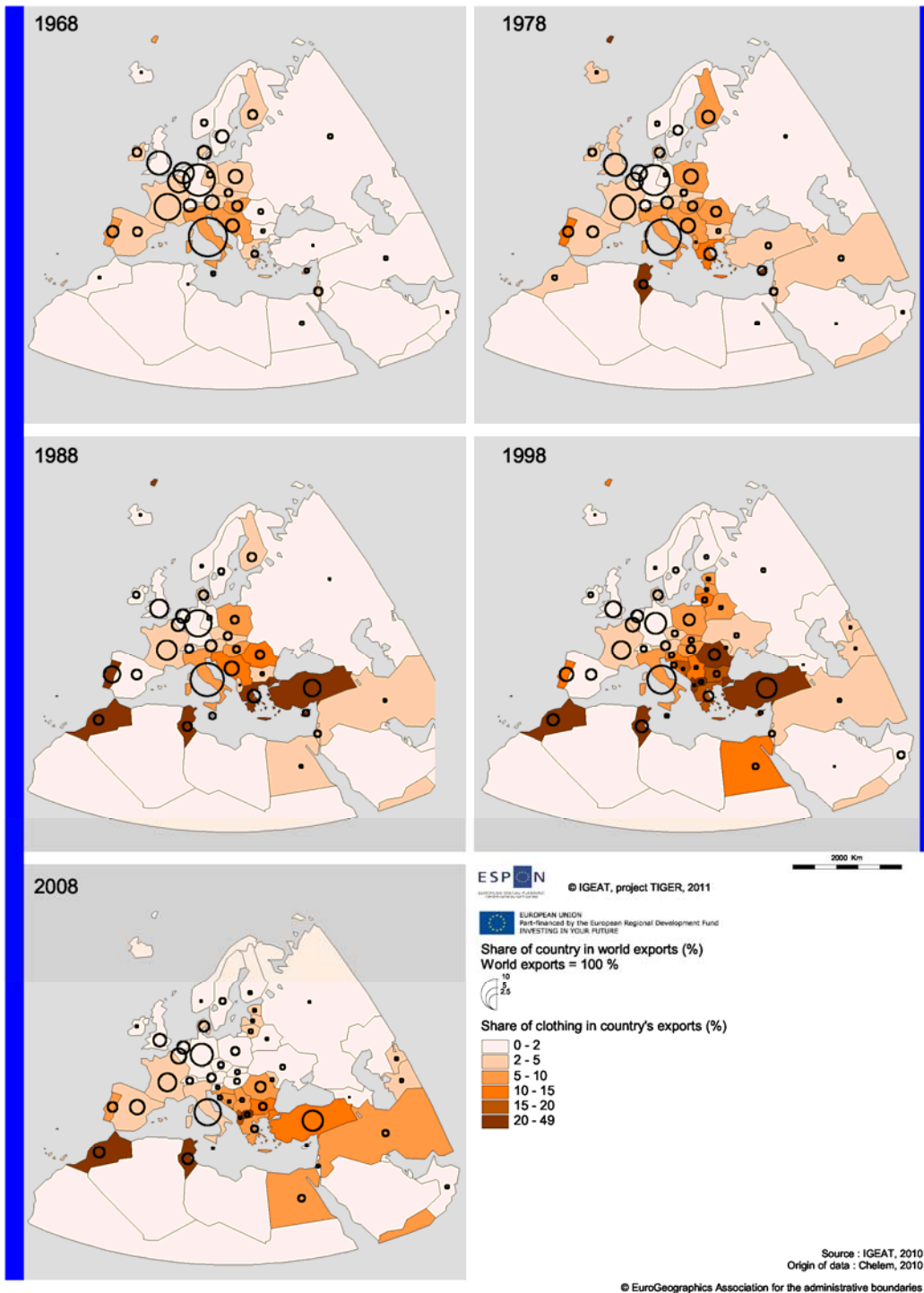


Figure 13. Relocation of clothing industry within the Euro-Mediterranean Space, 1968 – 2008

The most widespread form of relocation of production tasks from Old to New member States is subcontracting. Firms from Central and Eastern Europe operating as subcontractors are more often involved in continental rather than global chains. The competitive advantages of Eastern clothing industry include its high flexibility, well-skilled

labour force producing high quality and high value production, close geographical distance to the markets which ensure just-in-time production, fast delivery and reduction of logistic costs, high reliability of the supply chain, political stability and implementation of EU policy of social, labour and environmental standards, etc. The preservation of developed competences, facilities, skilled labour force and existing long-lasting business relations within the EU will have a positive effect for the future of industry. However, being “locked” in subcontracting and thus having limited access to resources, knowledge and freedom of decision-making, cases of downgrading are more often observed than cases of upgrading, and exceptions have mostly upgraded their products and processes. They have very limited ability to change their functions within particular chains and to take key positions in the commodity chains (Smith *et al.*, 2005).

In the Bulgarian case, the internationalization of the clothing industry has developed intensively up to 2008. The Bulgarian producers succeeded in getting orders from European buyers as a result of the shift from Central European countries to the Eastern European ones. The clothing specialization of neighbour countries Greece and Turkey played a key role in the relocation of orders. The Bulgarian clothing industry was hit by the recent global economic crisis but it recovers faster than many other manufacturing branches in the country. Remaining part of the European clothing production, combining low labour costs and qualified workers, as well as well-maintained business relations with foreign partners from leading EU economies turn out to be important factors for this sector to overcome the crisis.

A comparison of the clothing firms survey data³ for 2010 with those surveyed in 2005 shows that 2/3 of the firms continue to operate and 1/3 of them have closed or changed their activities. Most of the bankrupt enterprises are foreign ownership – 54% of Greek owned firms and 66% of Greek-Bulgarian joint ventures, as well as 33% of Italian owned firms – resulting in significant changes in the geography of partnership in favour of firms originating from North-Western Europe (WP 8.1). Considering the difficult economic situation in Greece and Italy, the negative impact on the Bulgarian clothing industry is rather due to the inner regional than to global challenges.

The negative impact on employment in the clothing sector resulted in a drop of 20% from 2007 to 2009. In 2009 the sector employed 110 000 persons, representing 20.5% of manufacturing employment in the country. South Central and South Western regions account for 57% of the Bulgarian clothing employment. The regional importance of clothing employment measured as a share of manufacturing employment shows that there are many regions (NUTS 3) where clothing industry is of crucial importance. In 2009 the Blagoevgrad and Kurdzhaly districts had shares of 54%, and many others (Smolyan, Rousse, Haskovo, etc.) above 30%. The clothing industry in Bulgaria faces difficulties due to shrinking labour force since 2005. The service sector and office work appear more attractive than factory work. This imbalance between demand and supply of clothing labour force can also be observed in other CEE countries – Poland, Slovakia, and Romania. It might be considered that any further relocation of clothing production by Western European buyers will be due not only to cost-cutting strategies but also to the fact that the capacity potential of East European clothing industry is almost accomplished to a considerable extent in terms of labour.

In the automotive industry, we will briefly discuss here the on-going dynamic processes at global and European scale by highlighting the importance of global drivers. The automotive value chain has very different characteristics compared to clothing and thus shows very different patterns of relocation in the last decades. It is mainly a producer-driven industry with a high concentration in big transnational companies

³ A survey of 69 Bulgarian clothing firms was implemented in 2011, including all 60 firms interviewed in 2005. Details of the survey data analysis are presented in the WP 8.1

producing automobiles and dominating the world markets. This feature is related to high technological contents and the importance of R&D and knowledge to remain competitive. Hence the high level of qualifications required, not only at the top of the value chain (such as design, conception and technological innovation), but also in assembling factories for which medium rather than low qualifications are generally required.

For this reason, the developed countries of the triad still concentrate most of the headquarters of car producers as well as auto and truck parts companies. In 2011, Western Europe concentrates 39% of transnational firms (in sales) in the automotive industry, a stable figure compared to 2006. Also Japan shows a stable concentration of headquarters around 30%. In contrast, in North America the share of world headquarters in automobile has declined from 27% to 20% between 2006 and 2011, while within the same period Korea and China have increased their commanding functions in automotive industry from 3% to 5% and from 0% to 3.5%, respectively.

The fragmentation of production in the automotive industry has mainly involved offshoring of low-skilled tasks to affiliates and subcontractors in foreign countries with more attractive factor conditions. Work tasks involving more knowledge intensive operations are slowly entering the automotive sector in Western Europe as Original Equipment Manufacturers (OEMs) tend to focus more on core competences in form of R&D and prototype design.

At the global scale, in contrast to usual figures in the manufacturing industries, the share of ESPON has increased significantly in the world markets during the last two decades, from 10% to 15% of world exports, while the other two big blocks have remained stable, Asean+3 and NAFTA accounting respectively for 20% and less than 5% of world exports. However, the general trend in ASEAN+ 3 hides the contrast between the decline of Japan in favour of other competitors, such as Korea and in the last decade China. Indeed, in number of cars produced, China has recently overcome Europe (WP8.2). Another feature of the automotive industry is the persistence of regional patterns of organisation. Organisation in this form has resulted in more integrated continental industries in the EU, North America and Japan, where a strong emphasis is put on internal markets of major producers. Hence, despite its weak competitiveness on the world markets, the number of cars produced in North America remains high and is almost entirely absorbed by the internal market. This is also the case in Europe.

Within the European space, the production pattern in Western Europe has moved further east to locate in countries in Central and Eastern Europe (CEE). This shift is clearly depicted in Figure 14, along with the high levels of foreign turnover shares and two-way trade in road vehicles in Europe (cf. WP8.2). Offshoring production stages to the CEE area is supported by a number of issues interesting for companies in Western Europe. Main reasons are for example proximity to markets, no tariffs and quotas in trade with other EU countries in CEE, access to raw material (such as steel and other important ores), more lenient tax laws and low costs of land and labour. Thus, the enlargement of the EU has increased the possibility for actors in the European industries to enter new emerging markets in Europe.

In the perspective of the European automotive industry the first diffusion stage in Europe was aimed towards developed countries with lower per capita income, such as Spain, Portugal and former Yugoslavia, compared to the wealthiest countries such as Germany, France, Sweden and the UK (Maddison, 2010). In the second diffusion stage, new emerging markets have been entered by OEMs (mostly from Western Europe) that relocate production in developed countries with much lower per capita income, in CEE and other developing countries located in Africa, Latin America and Asia.

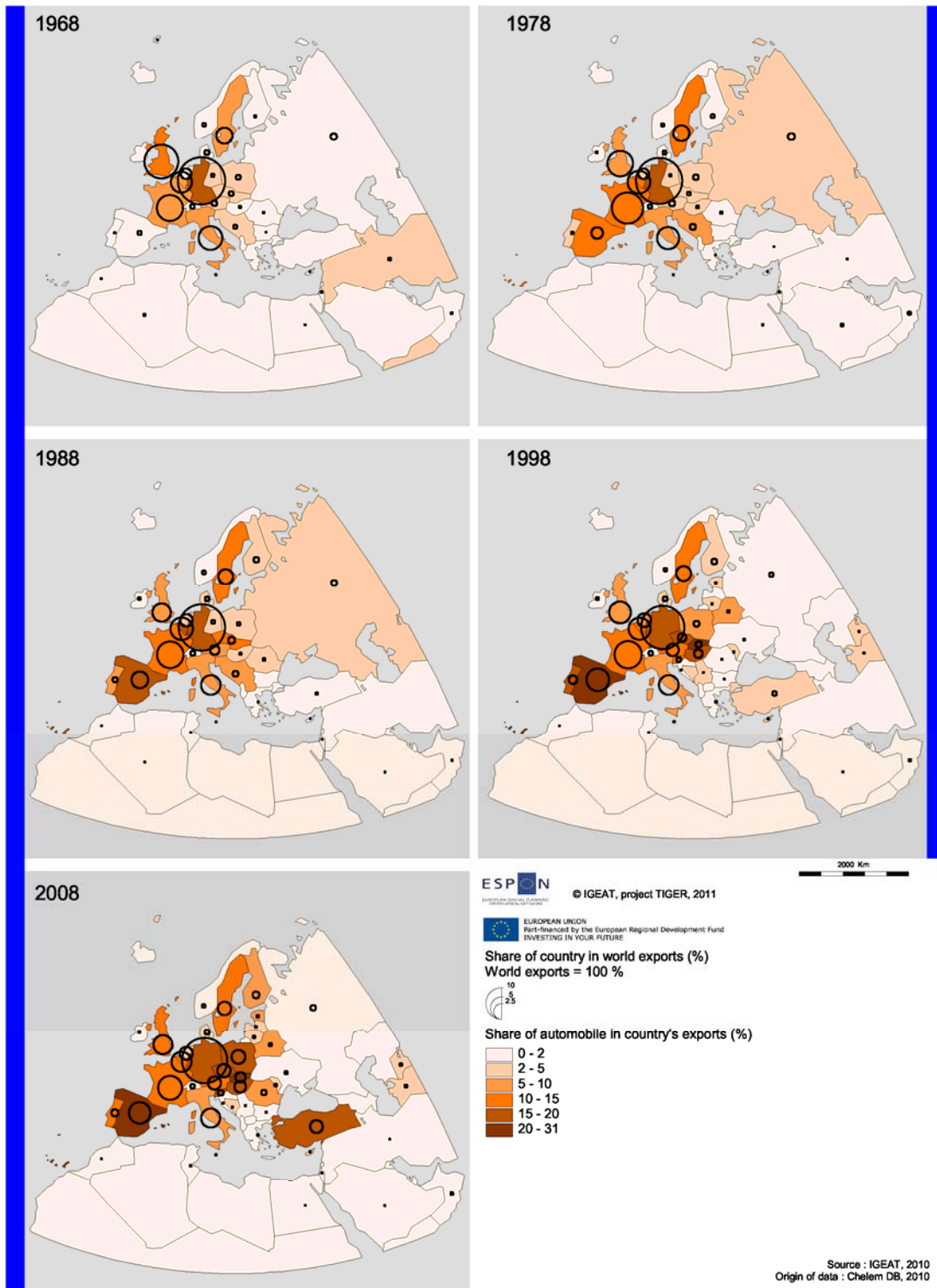


Figure 14. Relocation of the automotive industry within the Euro-Mediterranean Space, 1968 - 2008

2.2.2. European cities in global networks

Having examined the global trends of countries and regions in the first part of this chapter we turn to consider developments associated with contemporary globalization that have largely been missing in previous Europe-wide spatial analyses. These are the changing positions of Europe's cities in the increasingly interconnected global "space of flows" identified by Castells (1996) which informed the Lisbon agenda (Pain 2011). As argued by Friedmann (1986) and Sassen (1991), "world" or "global" cities and their extended functional regions (Scott 2001; Hall and Pain 2006) play a key role in the world economy. They concentrate resources which are critically important for economic growth and its sustainability – people, knowledge, talent and finance – also associated with the concept of urban and regional competitiveness in the literature. However, such resources must be understood as not being fixed in places but mobile between cities and regions in an increasingly globally interlinked economy. European cities are key nodes or gateways for cross-border flows at different geographical scales yet, for over a decade, European policy has lacked clear insights into the practical relationship between this nodal role of cities and the spatial concept of urban polycentricity referred to in the European Spatial Development Perspective (1999) at different scales (Halbert *et al.* 2006; Pain 2011). Information on the changing functional position of cities in transnational spaces of flows in this section of the report can help to inform this important gap in the evidence base for Europe 2020 policy on flow-place interactions in a global context. We single out five city functions - advanced business (producer) services, real estate, stock exchanges, air and maritime - as the most important foci for analysis.

Trends in the concentration of gateway functions

Europe and the US are well known as highly urbanized and economically developed regions in a world perspective thus, given the importance attributed to concentration for the global economic position of cities by Sassen (1991), we first consider trends in their urban concentration drawing on population, headquarters and the five gateway functions, relative to a surrogate measure of economic competitiveness, GDP.

The first observation emerging from a Europe-US comparison (table 5) is that the degree of concentration in major cities is far more pronounced in the US than in Europe. In general, Europe is characterized by an absence of major agglomerations, apart from London and Paris. The historical and political development of Europe has been associated with the emergence of large and medium size capital cities however, in the most highly populated area of Europe – the crescent stretching from Northern England to Central Italy – these are interlinked in a dense urban network. This urban structure which approximates to Brunet's description of the economic "backbone" of Europe (1989; 2002) popularly referred to as the "Blue Banana", can be considered a "meta-city" space for Europe's most important flows in a global economic context (Pain, 2010).

Thus, a second observation is that, in spite of differences in the spatial outcomes of urbanization processes in the US and Europe, key European gateway functions show a similar level of concentration to those in the US. Strong functional interrelationships between cities in Europe are allowing cross-border specialization and complementary nodal roles to emerge. Just a few cities, most notably London and Paris, play the role of global gateways between the European territory and the rest of the world. Nevertheless, trends in the concentration of gateway functions in major cities, both in the US and in Europe, are unclear. The urban concentration process has not been strong in these world regions during the past decade, however market integration within the European Union may be expected to promote the growth of newer gateway cities in the recently incorporated Eastern European territories.

	EU			US		
		1999	2007		2000	2009
Population	1 to 5	7.93	8.16	1 to 5	18.0	17.6
	London	2.56	2.57	New York	6.5	6.2
GDP		1999	2008		2001	2008
	1 to 5	11.7	12.1	1 to 5	22.6	23.1
	Paris/London	3.9	4.2	New York	8.7	8.9
Headquarter		2008			2008	
	1 to 5	57.2		1 to 5	40.1	
	Paris	22.5		New York	18.2	
GaWC (extra)		2008			2008	
	1 to 5	18.24		1 to 5	27.00	
	Paris	4.96		New York	9.54	
Harbour functions (extra)		1996	2006		1996	2006
	1 to 5	32.22	29.23	1 to 5	50.02	45.54
	Rotterdam	7.15	6.67	New York/Miami	11.56	9.85
Air service (extra)		1999	2008		1999	2008
	1 to 5	69.19	70.66	1 to 5	65.79	64.38
	London	27.31	27.92	New York	27.54	30.70
Stock exchange (extra)		2010			2010	
	1 to 5	82.95		1 to 5	/	
	London	54.09		New York	100.00	
Real estate (extra)		2007-10			2007-10	
	1 to 5	82.81		1 to 5	92.76	
	London	48.04		New York	68.08	

Table 6 Synthesis of the concentration of population, GDP & gateway functions in the EU and in the US

Dynamics of European cities in global networks

Advanced business services (WP3)

Analyses of data on the global office networks of knowledge-based, advanced business services supplied by the Globalization and World City Network (GaWC), shed light on the “connectivity” generated between cities by their operations in Europe and across the world (Beaverstock *et al.*, 2000; Taylor, 2004). Time series analyses of standardized data for five service sectors – banking/finance, accountancy, law, advertising and management consultancy – in 285 global cities, allow us to consider city business connectivity changes between 2000 and 2008, and therefore the changing position of Europe in a global context. Non-standardized data available for 525 global cities in 2008 (also from GaWC) also reveal the network position of more recently globalizing cities, in particular some Eastern European cities, not present in earlier datasets.

First, there has been a dramatic re-balancing of city connectivity at a global scale. 60% of cities worldwide gained connectivity to global service networks between 2000 and 2008. There has also been an increasing concentration of connectivity in the Pacific Asia region, especially in Shanghai, Beijing, Seoul and Sydney. Looking to the future, it is important to note that China and also India are centralizing in the world city network due to the increasing connectivity of their major globalizing cities and this trend is likely to continue with ongoing urbanization and economic development in these regions.

Second, the results show that from 2000 to the first half of 2008, immediately before the financial crisis, the pre-eminent global connectivity positions of London, New York, Paris and Hong Kong remained stable however, and that Paris actually improved its global rank position (figure 15). Inter-city functional links generated by business network connectivity have remained strongest between London and New York but, important for

policy, it is interesting to note that East European cities are well connected either to London or to Paris. Warsaw in particular and also Prague and Budapest, have increased the network position of their countries in Europe by 2008 but significantly this has not diminished the global importance of London and Paris.

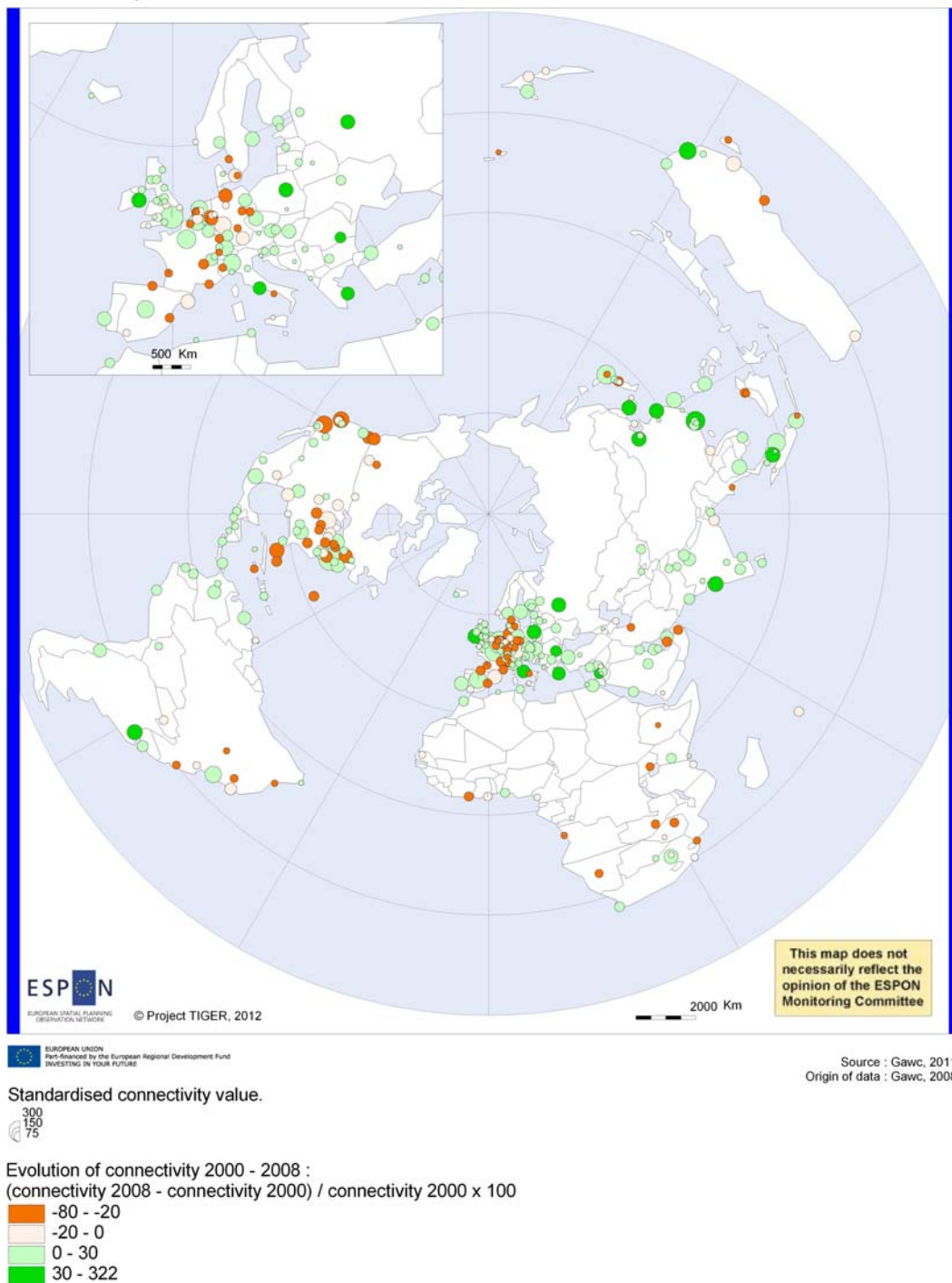


Figure 15. Cities connectivity in advanced producer services and its evolution between 2000 and 2008

Third, apart from New York, most US cities (including Chicago) show a pattern of decline in global rank position and in some cases actual connectivity falls from 2000 to 2008. Los Angeles, for example, has experienced the second worst rank decline in the world (figure 15). Yet, if nation state boundaries are taken into consideration, the global network position of the UK appears weak compared to the US, even though London and New York have equivalent global connectivity, due to the greater number of major service nodes present in the US. However, if the cohesion remit of the European Union is taken into consideration in network analysis by grouping Member States together as one territory, we see that Europe takes on a more central global network position than the US in 2008. In contrast to the decline which has been occurring in US cities, 61 out of 95 cities in Europe have increased their network connectivity between 2000 and 2008.

Fourth, when considering the position of cities in financial services networks, which are regarded as having an especially important role in generating and maintaining business concentration, we see the ongoing dominant network position of New York and London (figure 15). Only 82 cities included in the analysis increased their financial services connectivity between 2000 and 2008, demonstrating that important service network connectivity has been generated by other sectors. Taking the European territory as a whole, accountancy has been an important generator of global network connectivity, especially for London and Paris, but also notably, for cities across Eastern Europe - Warsaw, Bucharest, Prague and Budapest. Taking nation state boundaries into account again, China, now has three major international financial centres (Hong Kong, Shanghai and Beijing), making it more central in global financial services networks by 2008 and Moscow has had the highest financial services connectivity increase in the world since 2000.

Real estate investment flows (WP9)

Commercial real estate provides the urban office infrastructures in which global advanced service networks conduct their business, furthermore, as argued by Lizieri (2009), the financialization of real estate through the creation of innovative financial investment vehicles, stores and locks down value in cities. Firstly, data on buyer, or investor, and property locations supplied by Real Capital Analytics for the top 1000 global commercial property transactions allow us to examine the real estate investment flows into, out of and within cities from 2007 to 2010. Secondly, a correlation between financial services network connectivity and real estate investment data allows us to consider the importance of Europe's international financial centres in global real estate investment flows. Thirdly, changes in the world location and concentration of real estate investment flows are examined to assess Europe's potential exposure to risk as a consequence of international financial crisis (Lizieri, 2009).

First, data for financial services and real estate reveal that, in the global real estate network, cities that have high investment inflows generally also have high financial services network connectivity. There is thus a strong suggestion that interrelationships between financial services networks and real estate office markets are supporting global city network centralities. 116 cities are present in both global networks, drawing attention to the number of cities that are interconnected through these two sectors.

Second, although financial services and real estate network geographies are correlated by almost 30%, demonstrating the strong integration of international financial centres in real estate investment flows, city in- and outflows vary markedly (figure 16). It is important to note that London has nearly three times the real estate investment inflows of New York. In China, Shanghai has far larger real estate inflows than Beijing which may reflect the difference in their financial services connectivity. This pattern is less consistent for other European cities however, Berlin for example, ranks 12 for real estate investment inflows but only 66 for financial services connectivity, possibly reflecting a legacy of political economy changes following the reunification of Germany. Nevertheless,

the question is raised whether the concentration of financial flows through financial services and real estate networks represents a risk of contagion for major global cities in financial crises.

Third, the largest investment flows for the period were focused on a far smaller number of the world's cities during the year the crisis hit. The volume of investment flows and the average price per property transaction in 2008 (the year when the crisis went viral across cities and countries) was nearly double that in 2007. Furthermore, although the number of cities in the world involved in these flows during the four year period has fallen progressively from 192 cities in 2007 to 110 cities in 2010, the largest fall occurred between 2007 and 2008 (from 192 to 139 cities). This means that after a large fall in average transaction prices between 2008 (\$33,69) and 2009 (\$20,99), there has been a modest rise between 2009 and 2010 (\$22,05).

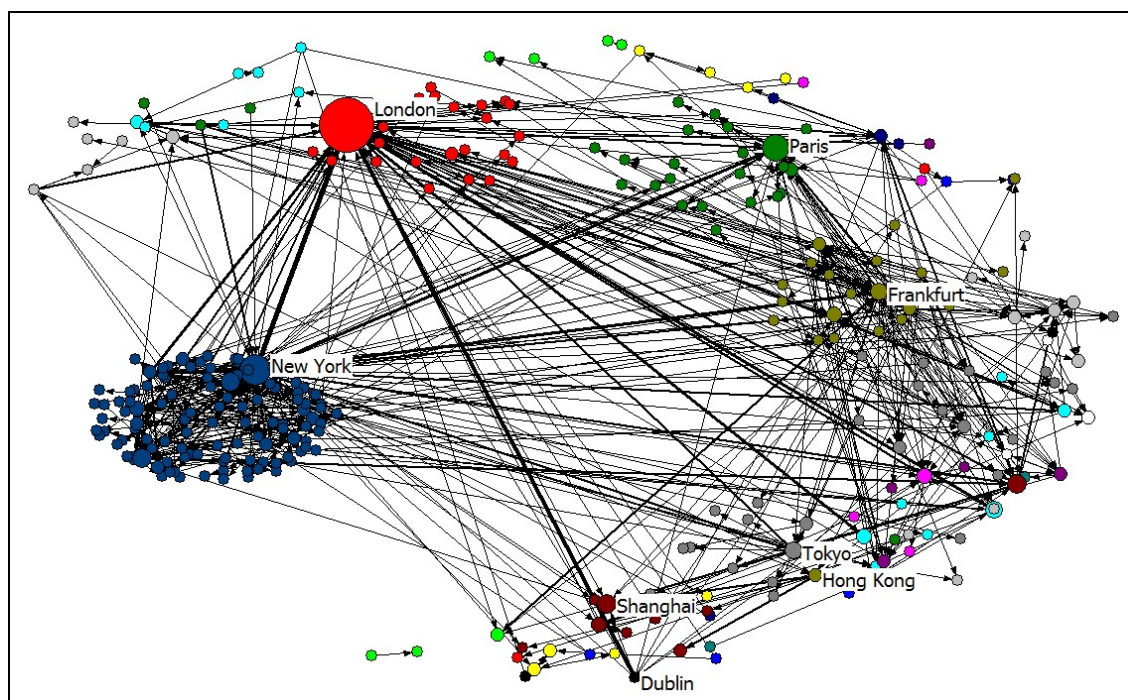


Figure 16. Global office market inflows, 2007-2010

Fourth, the surprising feature of the crisis is that the dominance of leading international financial centres, globally and within Europe, has increased rather than decreased, despite their exposure to global capital market volatility and overall sharp capital value falls. The liquidity of dominant internationally constituted real estate markets which is a feature of the world's top ranking global cities seems in practice to have been a key investment driver. Capital has flowed to higher value locations which interlock investors spatially in a small number of financial centres that are functionally interlinked, as evidenced in the correlation between GaWC financial connectivity scores and aggregated real estate investment flow volumes.

Finally, comparison between investment in- and outflows makes Europe look strong by comparison with the US in spite of the clear drop in overall investment levels in the immediate aftermath of the crisis. Europe and London in particular have proved more attractive for real estate investment in 2010 compared to the US which has suffered more severely from the impact of the crisis. This contrasting picture for real estate

investment for the US and Europe may reflect trends in the global business network connectivity of US cities, apart from New York, identified for advanced business services.

Stock exchanges (WP10).

To examine the reality of the European space of financial flows concerning stock markets, cross-border listings have been used as a key indicator of local and global relations. A listings database of all issuers whose shares were listed in (or prior to 2010) which were active in 2011, has been compiled using DataStream software available from Thompson-Reuters, together with information from market operator official Internet websites, and stock exchange data officers. The final dataset includes 2763 cross-border listings, with issuers' operational headquarters located in 112 countries. The shares are listed on 66 stock-exchanges and in 79 listing places with some market operators having several listing locations, i.e. NYSE Euronext and Nasdaq OMX Group. Incorporating the location of listed issuer operational headquarters allows us to develop an understanding of listing functioning, economic partnership and spatial preferences, as these are the places in networked firms where major strategic decisions are made concerning the allocation of raised capital. The results from our analyses show that international finance capital raising and listing activities retain strong geographical patterns reflecting proximity, cultural, institutional, specialization and political economy relations which continue to structure the global and European spaces of flows in spite of predictions of a de-territorialization of stock market flows.

First, very few listings show a global pattern. Outside Europe, the only examples are the two New York stock markets - Nasdaq and NYSE Euronext - however Europe attracts issuers from all over the world with just a few exceptions. We can affirm the global profile of the highly liquid London Stock Exchange market. But, in contrast, listing places with a less well-established reputation, such as the Warsaw Stock Exchange in Eastern Europe, have a smaller (macro-regional) area of attractiveness and quote European equities almost exclusively. Mixed profiles are those that are largely regional in character but also include some more geographically distant "proximities" due to established cultural links (historical, linguistic etc.) and economic familiarity, leading to mutual confidence between issuers and investors. For example, the preference of United Arabian Emirates firms for European markets reflects strong links established with London which has become a de-facto standard for Islamic finance in Europe.

Second, a distinct European macro-regional pattern of globalized capital raising activity can be identified. European issuers prefer to have their shares listed on European markets, especially firms from North and Eastern Europe. The influence of institutional "environment" may be a factor because the European and MiFID "passport" creates a wider pool of investors and makes the trade of shares more coherent within Europe. The consolidation process, merger and mutual agreements between European stock-exchanges, increase the potential of the European financial market and increase corporate issuer confidence. North American markets represent the second most preferential listing places for Western European firms, whereas European shares are virtually absent from the Asian stock-exchanges, perhaps reflecting a lack of confidence in these stock-markets and/or in their regulatory environments and quotation systems (European issuers are not yet permitted on the Chinese stock-exchanges listing).

Third, cross-border listing choices illustrate the unequal attractiveness of stock-markets. There is also a spatial effect associated with specialization which reflects issuer confidence in country economies experienced in specific economic fields. World cross-listings are dominated by the two major stock-markets, London and American listing places, which attract issuers from many countries. In Europe, secondary nodes, the German, French, Italian, Swedish, Spanish and Luxembourg exchanges, also stand out, attracting at least 10 issuers from two different origins (figure 17). The key points of connection in Europe are London, Paris, Frankfurt, Luxembourg and also exchanges in

Stockholm, Oslo, Zurich, Milan with participation also from Madrid, Vienna and Warsaw. However integration of actors from Czech Republic, Denmark, Finland, Hungary, Iceland and Portugal remains lower.

Finally, examining cross-border links within Europe and globally, also reveals the connections between specific cities in stock exchange financial flows (figure 17). The most broadly-connected European financial centre is London which has its greatest number of links with US cities, especially New York and Houston TX (for hydrocarbon firms), as well as with ex-Commonwealth cities (Vancouver, Toronto, Calgary, Johannesburg, West Perth) and “family” members e.g. Dublin and British Crown Dependencies. But Paris follows in the wake of and is interlinked with London, for example French equities of firms Saint-Gobain or Total S.A are listed on LSE. Thus, within Europe, London’s main connections and interactions are with Paris, Amsterdam, Oslo and Stockholm. An East-West gradient identified is not surprising since the stock-markets of East-Central Europe have only entered the free market economy recently.

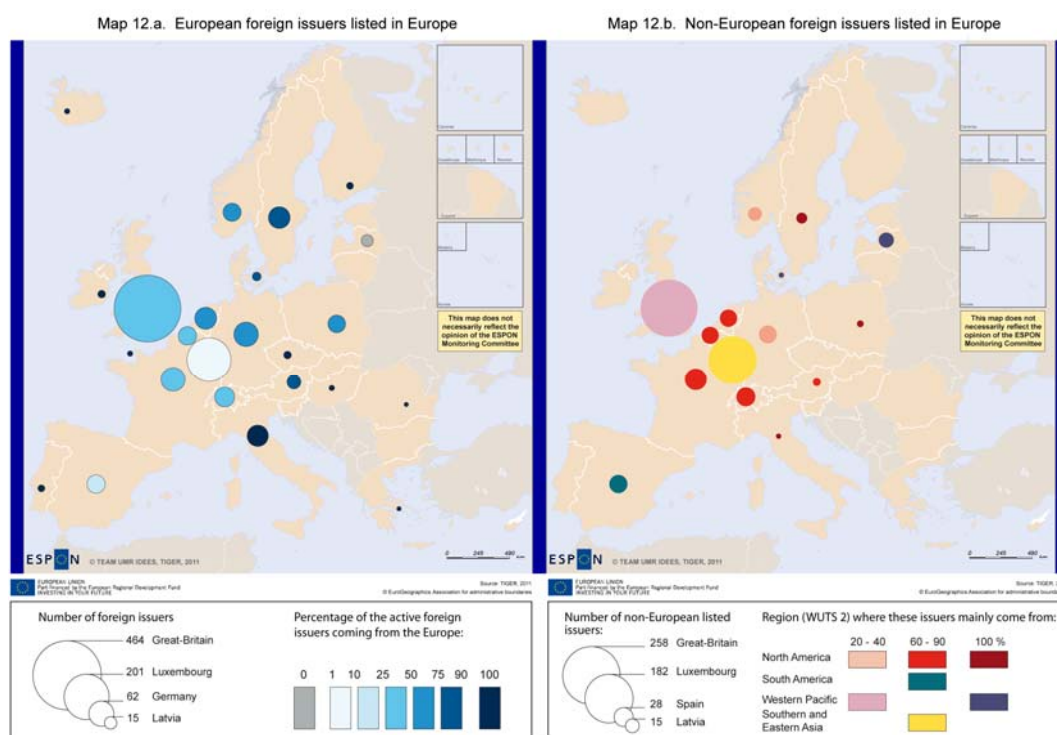


Figure 17. Attractiveness of stock exchange markets toward foreign issuers

Note: Foreign issuers are defined as firms choosing to be quoted on foreign stock exchanges different than the country they come from. The nationality of firms is defined by the location of the headquarters

Air services (WP17)

The main results on the evolution of the position of Europe and its cities in world airflows show Europe to be a highly integrated and interconnected air space, whose most important connections are internal. In 2008, 83.3% of all air connections are between European cities, a moderate increase since 1991 when this share was 80.9%. The share is even higher when immediate neighbourhood is considered. The figure reaches 90% if neighbourhood (former USSR, Northern Africa, Turkey and Western Balkans), are included. Proximity evidently still matters greatly in the intensity of air connections.

At a city level, we can observe a huge concentration of air gateways into a just few major cities, at a level even higher than that in the US. Also, as far as intercontinental flows are concerned, the concentration process has increased between 1991 and 2008, notably to the benefit of the London airports (see table 1). The major hubs show the most global geographical profile of air supply but we do observe specializations between them, for example the role of Paris as a hub for Africa, and Madrid as the main hub for flights to Latin America. Less important European airports are generally far more specialized in their extra-continental supply.

Maritime gateways (WP15)

Analysis of global maritime flows provides fresh insights into the position of European gateway ports and of Europe as a whole compared with ports in other world regions, as well as the external influence of Europe in the world through the vector of shipping.

Port traffic evolution and concentration dynamics - ESPON as a whole has experienced a similar evolution to NAFTA (a decline of its relative weight in world traffics) due to the rapid growth of other regions through the catching-up of container dynamics, as well as a continuous increase of port traffic concentration internally. This stands in contrast with ASEAN+3 where traffic concentration occurred in parallel with a rapid and regular increase of its relative weight in world totals; according to port system evolution models, reaching high concentration levels provides a chance for secondary ports to catch traffic from congested load centres, so there is a need to verify whether the Motorways of the Sea strategy will fulfil this objective to make the European port system less concentrated, while carefully checking whether greater port concentration always means greater port competitiveness, and whether de-concentrating the port system (and in which ways) would benefit both larger and smaller ports.

Global maritime flows are polarized by a small number of dominant port cities acting as hubs. The geographic coverage of their influence points to the fragmentation of Europe amongst relatively small and scattered "nodal regions" compared with the dominant Asian region and with other maritime ranges showing more spatial continuity. Although results vary throughout the years and according to specific commodity groups, they somewhat reflect several key factors such as the strong continental character of Europe (i.e. importance of landward connectivity, hinterlands, inland cities that are not included in the analysis), its morphology that influences vessel circulations (peninsula) and results in a variety and multiplicity of circulation patterns, with northern ports and southern ports belonging to distinct groupings. Another possible factor behind the results is the maintained mosaic of trade orientations among European countries and regions, but this factor could not account for the comparatively less integrated Asian region, which appears much more homogenous. This has a lot to do with the fact that Asia is using dominantly maritime transport while in Europe, land-based transport is vital and the implementation of short-sea shipping policies remains rather limited. Rotterdam appears as the pivotal hub for many commodities as it extends its influence towards a majority of northern European ports: this directly reflects its dual role as both maritime hub and load centre (continental gateway). Barcelona acts as the second dominant port within a Western Mediterranean nodal region, followed by other secondary poles (Lisbon, Venice, Belfast and London). In comparison, Asia appears more integrated (i.e. around Singapore) with a longer-range influence. The case of sole containers in fact shows that most African and Mediterranean ports are included in the dominant Asian subsystem.

The extent to which such fragmentation is strength or a weakness, compared with other regions remains to be demonstrated. Yet, one may argue that European ports may extend their influence in the global network based on further impetus given to the maritime and ports sector, not only within Europe itself but in relation to nearby partners as mentioned earlier. An "extended maritime policy" may well reduce the overwhelming influence of Asia and the fragmentation of Europe. This is also based on the

overwhelming concentration of ESPON-related flows in Europe's vicinity (e.g. North Africa, Mediterranean and Black Sea areas) (figure 18). Such policies, however, depend on macroscopic factors such as production location and trade routes, as well as on the established trucking industry, but there is room for rethinking the role of sea transport in European economic development beyond sole demand-driven arguments. In particular, the further development of intra-European liner services could strengthen European integration and limit environmental impacts, as well as land-based detours caused by over-concentration at large gateway ports: more than 40% of French exports still shift towards external ports such as Antwerp and the Benelux instead of passing through Le Havre or Marseilles, thereby increasing road traffic and negative environmental impacts.

In many analyses over time and across commodity types, Rotterdam appears as the most central port either in the world or in Europe. We identified a recurrent higher centrality of northern ports in the global network compared with southern ports, which remain bound to more localized traffics despite their comparable performance in terms of total tonnage. Thus, many southern ports handle large tonnages but are not well positioned in the network. In addition, the number of links (K) to other ports does not always reflect upon the true centrality (BC) on the level of the entire network(s).

Port traffic specialization and regional socio-economic specialization - The last analysis clearly underlined the functional linkages between types of traffics and types of regional economies in Europe and Japan. Urban regions with higher GDP per capita than the national average, and higher concentration of tertiary activities (notably the financial sector) concentrate more valued, larger, and diversified traffics (i.e. traded vehicles, containers) on average, such as Hamburg, Lisbon, London, Oslo, Stockholm, Genoa, Rome (Civitavecchia), Bremen, Copenhagen, and Piraeus (Athens). This is opposed to a profile of "traditional" and "peripheral" regions where the primary sector (and to a lesser extent the industry and construction sectors) as well as bulk commodities (e.g. agricultural products, minerals, metals) dominate both economy and flows. This is the same trend in Japan, with the main poles of the megalopolis handling higher valued goods and concentrating economic wealth, financial activities, and population.

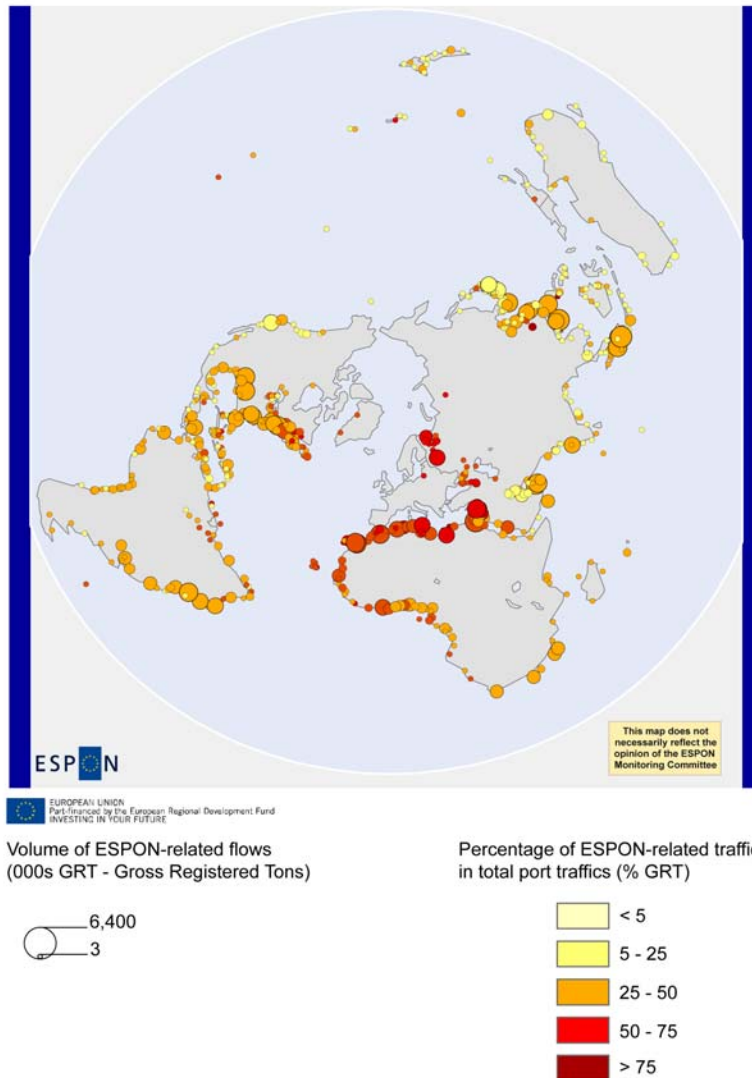


Figure 18. Weight and share of ESPON-related flows at external ports in 2004 (all commodities)

Classification of cities by their functional position in global networks

By integrating the results of the network and flow analyses, it is possible to create a typology of cities which brings together data on the intensity (an index synthesizing connectivity derived from network analysis) and the nature (types of services, types of gateways...) of their connections with the rest of the world. The objective is to classify cities according to the nature of their links in European and global networks. We must underline that only cities (Large urban areas) having more than 500 000 inhabitants have been considered in this synthesis.

The classification here is based on six different types of network and hence six indicators (WP 2). For all types of networks studied, we measure both the total connectivity and the extra-continental connectivity of each city in order to focus on global cities that really provide gateway functions for the European space. The network data used are as follows:

- firms in advanced producer services (GaWC) for the year 2008;
- air connections for 2008;

- containers connectivity of ports for 2006;
- foreign quotation on stock exchanges for 2010;
- investments in office real estate between cities (average for 2007-2010).

An indicator of city commanding functions – the location of corporate headquarters (2008) – has also been added.

Intensity of connections and specialization of cities have been combined to derive the city classification. Intensity indicates the total importance of cities in each network and is essential because it highlights the active role of a few cities in each type of network. The specialization of cities complements this measure by highlighting which gateway functions a city is specializing in.

The first four groups are characterized by cities with diversified types of gateway functions, with a decreasing red gradient according to their importance in the different gateway functions: London – in darkest red – has the highest score, and accounts for more than 20% of all extra-European connections; Paris and Frankfurt stand below London but are still characterized by high values in most types of networks (APS, stock exchanges, air connections, office real estate); the next group consists in a few cities such as Brussels, Amsterdam, Munich, Stockholm, Madrid etc.; the lightest red corresponds to cities with much less importance in networks but still characterized by their diversification in the nature of the gateway functions they are specializing in. The three other groups are distinguished by a marked specialization in just one type of gateway function. Cities in the blue group are mainly specialized in harbour functions, for example, Hamburg, Rotterdam, Barcelona, Bremen and Antwerp. Cities in green are, in turn, specialized in advanced producer services: it groups together most eastern capital cities characterized by their role of national gateways in advanced producer services. Luxemburg is also classified in this group because of its very high specialization as a stock exchange (and financial) node and, to a lesser extent, for advanced services. The weight of Luxemburg is boosted by the attractiveness of its stock exchange to foreign firms, which goes far beyond the real weight of Luxemburg as a stock exchange market. Finally, cities in yellow are small cities showing exclusive specialization in advanced producer services or air services. Note that “specializing in” does not mean that cities have a larger absolute value in this type of functions.

Finally, we classify cities according to the geography of their functional links with the rest of the world in the five networks examined in this chapter: advanced services, stock exchanges, real estate investment flows, maritime links and air connections (figure 20).

On the left, we highlight cities that can be described as “unEuropean” compared to the others: the lighter the colour, the less European the city network. Not surprisingly, global cities are “less European” with around half of their links being with non European cities. Amsterdam is distinguished from other global cities by its higher share of links with other European cities in the networks considered here. On the right, we classify cities according to the regions of the world they are linked to in the various networks, excluding links with other European cities. The red type is the most “global” in its geography, with more intense links with North American cities. In contrast, other major cities shown in brown also have worldwide relations, but most specifically with Africa. The green type groups together cities whose relations are global, though a bit less than the previous ones. The other types group cities having more exclusive relations to certain regions of the world: some cities focus their relations toward eastern (blue) or southern (orange) neighbourhood, or both (purple), while others have more distant specialization such as Madrid (pink) – the European gateway to Latin America – or Luxemburg (yellow), whose stock exchange mainly attracts Asian firms.

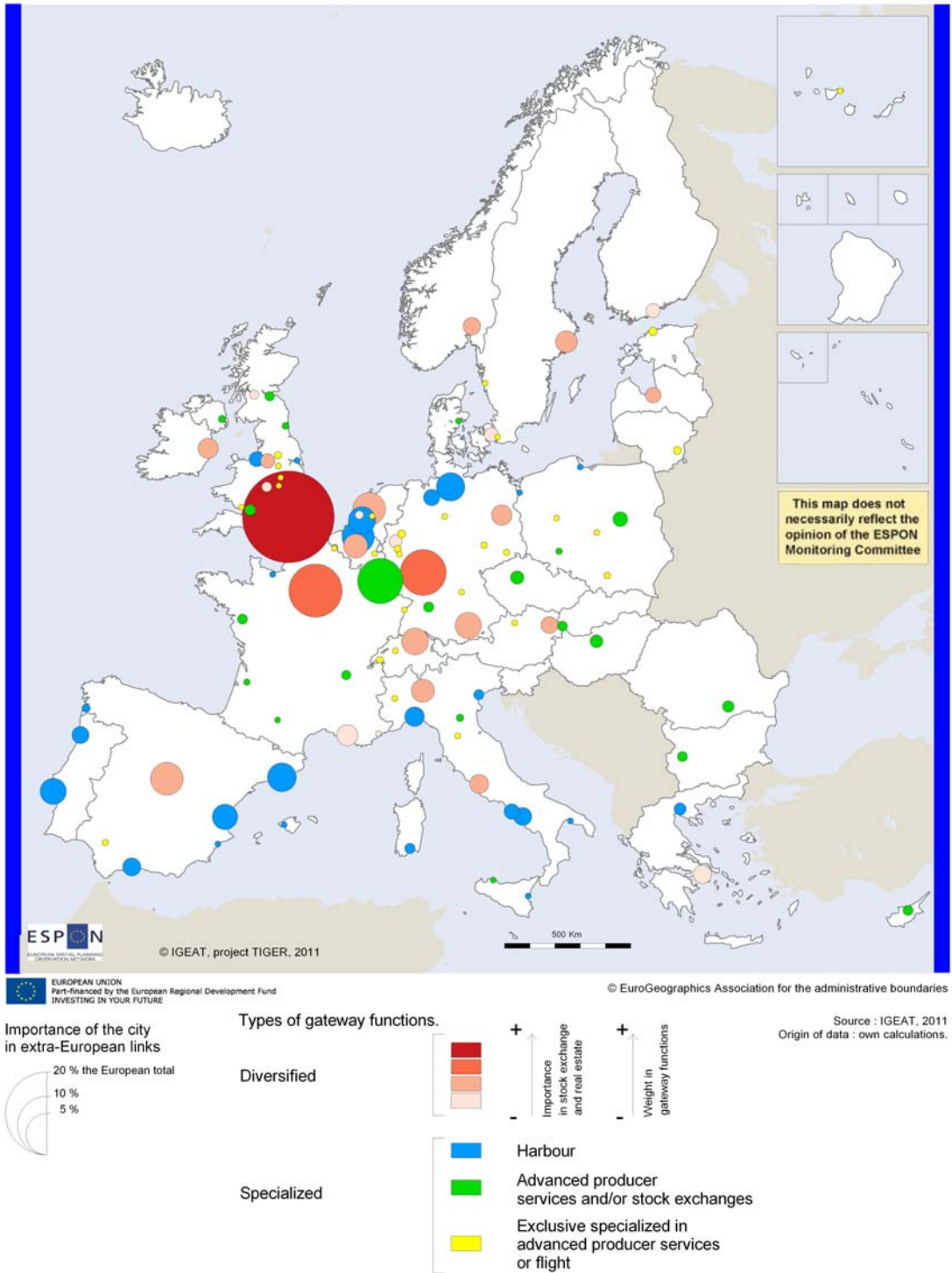


Figure 19. Classification of cities according to the nature of their links with non European cities (with more than 50000 inhabitants)

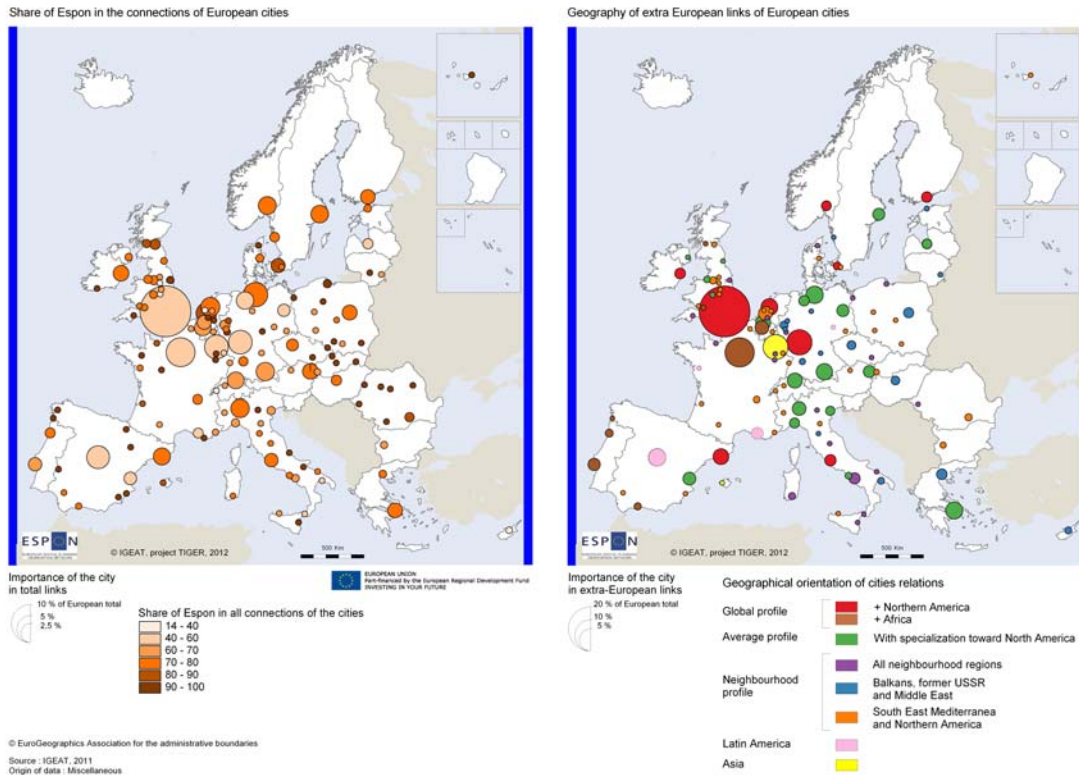


Figure 20. Classification of cities (with more than 500000 inhabitants) according to the geography of their global links

Global cities and competitiveness

The results from the analyses described in this chapter have critical importance for longstanding policies to strengthen the economic position of Europe in a global context by setting out to make it "... the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth ..." the central objective of the Lisbon agenda (2000) which is taken forward in Europe 2020 strategy. So what conclusions can be drawn about the implications of the flow-place interactions studied for the European territory in a global context?

It is clear that within the European territory there is a marked specialization between cities, which have different roles and functions. However, we highlight the scale rather than functional specialization of cities (WP2). All global functions examined here are present in European major cities, and are correlated between them. This is because positionality in advanced services networks and global financial functions relies notably on air connectivity and real estate investments that provide the necessary infrastructures for global cities. Only port functions are not quite related to the other global functions, being mainly present in specialized cities such as Rotterdam. Just one city, London, is the dominant global gateway in Europe for flows in the important networks studied here. London's worldwide connectivities make it appear "unEuropean" in our city classification and typology, however its global linkages are of vital importance for Europe given world geo-political changes which are leading to the global shift in network connectivity. Furthermore, we have seen that London is highly interconnected with other European gateway cities so all that makes it seem unEuropean is its very high overall level of external linkages. Behind London, we find a limited number of cities with a high volume

of global functions (Paris, Amsterdam, Zurich, Milano, Frankfurt, Brussels, Madrid). We then find a number of national capital cities where all functions are present though with lower volume and geographical reach. Besides this scale specialization of intensively interconnected European cities, we also highlight their geographical specialization: global cities have by nature the most global geographical profile, while some major cities are gateways to different parts of the world. Both scale and geographical specialization of European cities highlight their importance for the European economy as a whole allowing connections between European territories and the global economy.

The London working paper (WP6) shows the importance of taking into account the complementary functional network relations between European cities of different sizes and at different geographical scales. Policy to promote territorial cohesion needs to take network specializations and complementarities of cities described in this chapter into account, and this necessitates the creation of nuanced spatial policies which do not simply focus on territorial rebalancing of urban population and functional distribution. The global analysis of cities in networks demonstrates that not all large cities are equally globally well connected but high network connectivity for specialized global functions such as advanced business services and associated international airport gateway functions is necessarily associated with major agglomeration.

However, having examined the relation between cities' connectivity and their economic performances (WP4), we found no impact of cities' connectivity in advanced producer services or in other functions. The relation between better connectivity and city growth is not as automatic as sometimes assumed, and this has significant implications in policy terms. This means that while global networks are certainly important for a few global cities, we do not know the exact impact of improving connectivity for the others. For example, London has been able to concentrate more gateway functions and to have higher growth. But path dependence and this capacity to capture higher share of added value created is specific to some global cities like London and New York. It does not work this way for all the other European and US cities for which we do not know how their position in networks impacts their economic performances. Hence, policies that focus on improving cities' position in global networks are highly problematic because of both the difficulty to impact on this structural feature (path dependence again) and the uncertain impact it will have on economic competitiveness for the city as a whole. That being said, these results do not demonstrate the unimportance of cities' connectivity as a source of economic performances for national and continental developed economies either, as illustrated in the aforementioned analyses.

Chapter 3. European territories in global flows: synthesis, policy implications and policy options

Key findings		
Trends	Policy implication	Policy options
Cities and macro-regions are the main functional scales of globalization	These levels of globalization remain weak in their governing capacities	Increasing the role of the EU as a regulatory power
Cities are important for competitiveness; But no simple link between city size and functions and competitiveness; The role of cities in boosting national and European competitiveness is difficult to demonstrate	City policies aiming at boosting their international position are uncertain because of the uncertain impact on economic performances and the weak possibility for cities to really boost their international position	Necessity to fit functional cities and levels of government; Cities should cooperate rather than compete; Cities can concentrate on congestion problems such as infrastructure or housing and social issues
Functional Europe includes neighbourhood countries; Europe has relatively weak links with emerging powers	Europe needs a coherent and shared strategy for/with neighbourhood countries ; To maintain its position, Europe needs to face the challenge of knowledge and demography	
European regions have very unequal positions in the international division of labour: Regions specialized in low segments are facing increasing external competition; Regions specialized in medium functions and having weak position in value chain suffer from "in-between" position.	EU policies should take the unequal position of cities and regions in the global economy into account;	The most vulnerable areas specialized in low functions need strong support from regional policies to improve their basic assets; "In-between areas" are vulnerable and also need support to face global and internal competition, notably to reinforce embeddedness of firms in territories.

In this report, we identify two functional levels to consider the place of Europe and European territories in globalization: cities and macro-regions. In this last chapter, we synthesize their role from a more strategic perspective (sections 3.1 to 3.3) before concluding with policy implications and options in section 3.4 and opening future perspectives of research in section 3.5.

3.1. The city as a functional level of the global economy

Increasing flows across the world result in the growing importance of cities that concentrate gateway functions, notably benefiting from agglomeration effects in various domains. Thus the movement of goods and people is highly dependent on major infrastructures located in gateways. We demonstrate this process in maritime as well as air connections. Concentration in major gateways does not only result from the importance of fixed capital but also from the "size effect" which allows economic actors, such as air companies, to have the necessary flexibility to adapt to unstable market conditions. Moreover, global advanced business (producer) services firms with offices

worldwide operate through cities which are the vital locations for concentrated international sources of talented labour and knowledge crucial for innovation (Taylor *et al.*, 2003; Pain 2008).

The functional and gateway role of cities in the global economy raises a number of issues which have important political implications:

3.1.1. Cities and the regional scale

The functional role of cities first raises the issue of the role of regions with regard to two major ideas:

- cities are the functional entities through which economy operates and may be the motor of regional and national growth;
- regions are normative powers and the basic divisions for territorial policies in Europe and do not fit the functional areas of major cities.

If cities must now be recognised as the key networked nodes for the functioning of the world economy where does this leave the regional scale which has been the main focus of Regional European policy? This question was central to the 2003-06 INTERREG IIIB Polynet: *Sustainable Management of European Polycentric Mega-City Regions* study (Hall and Pain 2006) which examined a global city expansion process first identified by Scott (2001) that is extending beyond metropolitan administrative boundaries in eight functionally interconnected areas of North West Europe. Main conclusions were that regional policy scales did not fit functional spaces in any of the study areas which were found to have a democratic deficit. Regions were found to reflect normative power structures as opposed to emergent spaces that require joined-up governance. A further key conclusion for policy was that, even if a more balanced spatial distribution of population and employment can be achieved, the gateway role of Europe's global cities remains functionally specialized in relation to the international scale. Thus such cities are the motor of regional and national growth but this does not counter the development of complementary roles of other cities at sub-national scales. Furthermore, in the present *Tiger* study it has been found that after Paris, London's top advanced business services links in the EU are with Milan, Madrid, Brussels, Frankfurt, Warsaw, Amsterdam and Zurich and as far as office investment deals are concerned, seven out of the top ten cities benefiting from flows *out of* London are European cities while only four top European cities are providing *flows into* London. These findings demonstrate that the London agglomeration process cannot accurately be described as *un*European.

3.1.2. Cities do not only compete, they also cooperate

On the one hand, city governments compete to attract labour, events, consumers and investments. Hence cities have been more and more influenced by "entrepreneurialism" aiming at providing the best possible environment for business (OECD, 2007; for a critical approach see Harvey, 1989; Malecki, 2004; Knox and Pain 2010). This is highly related to the re-scaling process of governance from the state toward sub- and supra-national levels. However, because of limited competences in economic regulations, governments of cities and regions opt for "entrepreneurial strategies" while at the same time trying to deal with the possible social negative impacts of these evolutions (Van Hamme, Strale, 2011).

On the other hand, as already discussed, major cities *as a process*, are specialized in various functions and have complementary roles in their European and global networks (see chapter 2.2.2). The importance of cooperation and complementarities between city economies has been highlighted in this project by the diversity of gateway functions of urban areas in Europe (see chapter 2.2.2, WPs 2, 3, 9, 15, 17). This diversity is functional but also geographical. As far as the functional specialization of cities is

concerned, we observe a strong correlation between the different types of functions: the cities' role in advanced business services, as commanding centre for firms, as major hubs for air connections or as nodes for real estate investments are strongly correlated with each other. However, in Europe, port urban areas are distinguished as hubs in the transportation of goods but seem to be very specialized in this type of function. Also, some medium size cities still remain the commanding centres for large firms without playing an important role in the wider networks related to the activities of those firms. Overall, the result is a complex urban system in which cities seem to have intermediary roles at different levels (global, European, national, regional), rather than being specialized in one specific function (WP2, figure 12). This might be called a scale – instead of a functional – specialization of European cities. Of course, this conclusion has to be qualified since more refined analyses in advanced business services show that below a certain size, cities are more specialized in certain areas than others. This is particularly evident with regard to sectoral specialization in morphologically polycentric city regions whereas, as a functionally polycentric urban region, the specialization between South East England centres proximate to London seems to be more functional in nature, reflecting scale specialization. In addition to this scale specialization of cities, strongly linked to their position in the European urban system, we certainly observe a geographical specialization of cities in their gateway functions. Of course the most important cities have the most global geographical profile but still show specializations (figure 20): London is the most global European city in the geographical scope of its networks but still shows specializations toward Northern America, the Middle East and Eastern Asia; Paris is a global city, nevertheless showing specific linkages with Africa; Madrid is the European gateway for Latin America in nearly all types of networks we studied; Nicosie plays a gateway role with both former USSR and the Middle East. Here again, the lower the size of gateway functions, the more exclusive its geographical specialization in non European links.

As a result of these interrelated processes, “globalization intensifies socio-economic dependencies of territories” (EC, 2011b), and we may add that these interdependencies play at different scales between European cities and territories as well as between European cities and global city networks. However, these strong interdependencies go hand in hand with a persistent division of labour, notably marked by the unequal geographical distribution of functions within value chains (Hopkins & Wallerstein, 1986; Gereffi & Korzeniewicz 1994; Gereffi & Memedovic, 2003). At the top level of these value chains, global cities benefit from cumulative processes of accumulation and are able to catch value because of the strategic positions of the actors embedded in these places. Such a division of labour has been highlighted in this report by the analysis of regional trade as well as the specific studies on clothing and automotive value chains (see chapter 2.2.1). At the bottom of the value chain, economic actors embedded in regions endowed with poor resources (unqualified labour, peripheral position etc.) do not have the capacity to move up in the value chain and hence catch a larger part of the added value.

3.1.3. How city size, connectivity and functional specialization impact on growth?

The issue of cities and competitiveness is a very complex one, which has relevance at two different scales: what is the relation between competitiveness (in an economic sense), size and connectivity at the level of cities; and how does the functional role of major gateway cities impact on the growth of Europe as a whole? We discuss both questions separately, although they are of course strongly linked.

At the city scale, the metropolitanization hypothesis (Sassen, 2001; Castells, 1996; Beaverstock *et al.*, 2000; Scott 2001; Hall and Pain 2006) has played a central role in the debate on the role of (global) cities and their urban regions in the world economy as well as keys to understand how cities contribute to competitiveness. On the competitiveness

issue, the metropolitanization hypothesis argues that in the context of globalization, (global) cities have a decisive competitive advantage (for a full discussion see Lennert *et al.*, FOCI, 2010). However, going back to Sassen, metropolitanization should not necessarily be understood as global cities performing better than the others but rather as concentrating more and more those strategic functions related to advanced producer (business) services. Another main issue is the size and/or level of connectivity a city should reach to benefit from agglomeration effects and boost its economic performances. Initially, Sassen's view only related to the top few global cities. Looking at Europe during the last two decades, we certainly observe the increasing role of London as the most important global gateway for Europe. In this case, the concentration of strategic functions and the global connectivity of London certainly boost its economic performance and that of the UK. However, the processes described seem to go beyond the small circle of global cities (see also Pain 2011).

Evidence from previous studies seems to demonstrate not only the ability of global cities but also first national cities to benefit from these processes, in the European context at least. In this context, the re-concentration of activities and strategic functions does not only occur at a global scale but also at a national scale, even within the integrated European market. This has certainly proved true during the 1990s, while this process has seemed to slow down after 2001. Indeed, few empirical studies have actually demonstrated the existence of a re-concentration of activities to the benefit of large cities (for a reflection on this see DG Regio, 2009; Lennert *et al.*, 2010; OECD, 2007b). Albeit we have found evidence of increasing connectivity in advanced business services networks, this process still has an unequal geography. The precise reasons behind the unequal and geographically uneven strength of re-concentration are likely to reflect specific development paths of cities across time and space. Moreover, in-depth analyses have highlighted the complex links between cities' economic growth and connectivity (WP 4). On the one hand, we demonstrate the relation between size, connectivity and GDP per inhabitant of European cities. This is obviously a long term consequence of agglomeration effects but does not explain the underlying direction of causality between the economic wealth of cities and their connectivity. On the other hand, we found no significant impact of cities' connectivity (and size) on their economic performances in the years 2000.

This has important political implications. Though some cities have clearly benefited from their position in networks at European and global levels, there seems to be no direct correlation between city connectivity and competitiveness (when measured by GDP) in the recent period. The emphasis of some local governments on increasing their network position in different areas therefore not only raises the issue of their capacity to promote connectivity in such networks but also uncertainty about the direct impact on territorial economic performance.

At the EU/ESPON scale, it is argued that "Metropolitan areas play an important role in sustaining the EU's global competitiveness" (EC, 2011b, pp. 16-19). The functional role of (major) cities in the European and global economy has been widely illustrated in this project. This raises the question whether the territorial structure of Europe, and in particular the concentration of urban functions, impact on its economic competitiveness. The idea is that in the context of globalization, the wealth of global/major cities is of decisive importance for Europe as a whole, since these cities are the main gateways with the global economy. In a way, the hypothesis is that European wealth now depends on the connectivity and economic wealth of major European cities.

If the importance of major cities for Europe is unquestionable, based on our findings there is no evidence that further strengthening of major gateways would enhance the competitiveness of the EU territory as a whole. In our view, such a direct question cannot be answered unambiguously. The only possible comparative cases are Northern America and perhaps Japan, given their similar level of development but, as we have discovered,

scale distinctions make such direct comparisons dangerous. Many different parameters other than urban structures and hierarchies can indeed explain relative territorial economic performances and these are of major importance for territorial cohesion (see WP5). Furthermore, the way policy could strengthen European gateways is another difficult question because agglomeration effects at global and European scales to the benefit of some cities result largely from decisions of economic actors in a very broad sense while public decisions probably have poor impacts on this, other than through global economic regulation and investment in the upgrading of transportation infrastructures for example.

3.2. Macro-regions as a functional intermediate level between the global and national/regional levels

The process of regionalization has been widely illustrated in this project. Hence, globalization should not be understood as undirected interconnections of all territories across the world. Global flows are first spatially structured by the persistence of unequal relations between core regions, which still benefit from cumulative processes of accumulation, and peripheral regions (Myrdal, 1957; Krugman, 1991; Wallerstein, 1974; Grasland, Van Hamme, 2010; Van Hamme, Pion, 2012). Global flows are also deeply structured by intense interrelations within macro-regions. In all types of flows studied, distance plays an essential role in the intensity of these relations: trade, migrations, flows of students or air connections (see chapter 2.1, WP7, WP13, WP 14, WP17, WP18). This results in an intermediate level of organization, notably from the economic point of view: **macro-regions**. Nevertheless, the importance of distance in structuring human and economic flows should not be understood as a pure geographical distance effect as this also relates to strong historical links, established by public as well as private actors, and which distance helps to keep alive. Moreover, the process of regionalization is also a policy-driven process through what might be called “regionalism”, or politically driven integration at a macro-regional scale (WP 19). Most of these regional agreements are mainly focused on economic relations, especially free trade agreements. Hence, the intensity of economic relations between countries belonging to the same macro-region has been strongly boosted by political decisions in terms of free circulation of goods and capital. By far, the European Union appears as the most advanced territorial assemblage in this process of *regionalism*, notably because its economic integration has been accompanied by a unique process of political integration.

In contrast to fears expressed in the 1990s (Krugman, 1991; Bhagwati, 1992; Frankel *et al.*, 1995), the dual process of regionalism and regionalization has not resulted in a slowing down of multilateral relations related to globalization (Anselin & O’Loughlin, 1996; Poon, 1997; Poon *et al.*, 2000; WP19). Rather, it has been shown that the growing intensity of relations at global and macro-regional levels are simultaneous processes: between 1986 and 2007, the EU’s internal trade has increased from 27% to 42% of total GDP, while external trade has developed from 15% to 21% of total EU GDP (chapter 1; WP18). This development is so pronounced that regional integration is now considered by world institutions as a necessary step toward multilateral free trade (World Bank, 2009). That being said, big economic ensembles of the EU and NAFTA can still be considered as relatively closed economies, with a ratio between trade and GDP of respectively 20.6 and 14.6%. As a consequence, large developed economies mainly rely on their own markets and producers, even in integrated global sectors such as automotive industries (WP8c).

As regards Europe’s functional relations, it has been shown that they largely go beyond EU borders to include EU non members (Iceland, Norway, Switzerland, Western Balkans) but also the Eastern, South-Eastern and Southern “neighbourhood”, respectively former USSR Republics, Turkey and the Near-East, as well as Northern Africa. All these areas have intense functional relations with the EU in terms of human flows, FDI, trade of goods and services, or air connections. However, these relations are not balanced and

can be described as core/periphery relations: while core European countries mainly sell services and goods with medium and high technological content, they buy raw materials (Russia, Algeria, Libya etc.), notably energy, and low added value manufacturing goods (Morocco, Tunisia, Egypt, Turkey). As for human flows, notably students and qualified labour, they are attracted by West European countries, still perceived as lands of opportunities, while tourist flows take the opposite direction. As a result, Europe appears more important to its neighbourhoods than the reverse. Overall, adopting a functional approach, the EU borders may generally be considered as fuzzy in that Europe's influence beyond its borders largely decreases with distance, but they can also be described as asymmetrical in that human and economic flows across these borders are unbalanced (Grasland C., Van Hamme G., Eurobradmap, 2011).

Yet, because the European neighbourhood is *de facto* part of the functional Europe, the EU should (and does) pay attention to what happens there. In the EU2020 strategy, neighbourhood is only briefly mentioned in a rather "paternalistic" way: "The Europe 2020 strategy is not only relevant inside the EU, it can also offer considerable potential to candidate countries and our neighbourhood and better help anchor their own reform efforts. Expanding the area where EU rules are applied will create new opportunities for both the EU and its neighbours" (EC, 2010a, p.23). It is also true that the territories to which Europe matters are not necessarily those that matter to Europe (see chapter 2.1). Europe's influence undoubtedly goes beyond its borders, but, at the same time, neighbour regions are not EU's main economic partners. As a result, in its relations with the neighbourhood, the EU focuses on strategic issues such as energy, security and immigration (WP19). The EU also tries to deepen its economic relations by signing free trade agreements with neighbour countries, and more generally, as mentioned in the EU 2020 strategy, by trying to apply EU rules in order to create "new opportunities for both the EU and its neighbours". However, this is not part of a full and shared development strategy for the neighbourhood even though neighbour countries do receive large shares of EU development aid (WP18).

If we turn to world territories that matter to Europe, EU 2020 strategy states that "A part of the growth that Europe needs to generate over the next decade will need to come from the emerging economies as their middle classes develop and import goods and services in which the European Union has a comparative advantage. As the biggest trading bloc in the world, the EU prospers by being open to the world and paying close attention to what other developed or emerging economies are doing to anticipate or adapt to future trends." (EC, 2010a, p. 22). In this report, we have shown that the US – and more generally NAFTA – is the main partner of the EU in nearly all types of relations: trade of goods and services, exchanges of qualified labour including students, or FDI. In addition, the US plays a major role in extra-European networks of European cities, notably in advanced business services. While much less important than the US, Russia, China and Japan are essential economic partners in terms of trade, knowledge exchanges, investments and/or networking in advanced services. However, the relatively weak position and declining influence of the EU as a whole in the so-called emerging economies (Brazil, India, China) might be considered a weakness in attempts to benefit from the development of emerging economies that represent the major new world arenas for globalization.

In this context, Sub-Saharan Africa appears to be largely ignored by the EU, considered neither a part of the neighbourhood nor a major partner. Undoubtedly, Sub-Saharan Africa has become more and more marginal in the world economy even though some signs of recovery can be identified in the last decade. Moreover, Europe's influence in this part of the world has been shrinking as illustrated by trade and other types of economic relations (chapter 2.2.2., WP7), while in the meantime the US and China have increased their relations with many parts of Africa, and South Africa has been able to polarize a large area in the southern part of Africa. However, for this increasingly disputed area of the world, with such a dramatic growth of population, Europe remains a major partner.

Finally, our observations have shown the extent to which EU's external policies must address a diversity of interests among the member states. As a matter of fact, member states and territories have different functional relations as underlined in chapter 2.2, highlighting the differentiated intensity in the trade of services (figure 9) and goods (figure 19) but also in the daily relations illustrated by air connections (WP17) or the geography of network relations with the rest of the world (figure 20). To take an example, when it comes to neighbourhood policy, a clear asymmetry can be noticed in the perception of the southern and eastern neighbourhood, well illustrated by the debate between EU member states when France proposed the creation of a "Union for the Mediterranean" (Eurobroadmap, 2012, forthcoming). On the one hand, Germany refused the first project where only countries located on the Mediterranean coast were invited to participate, considering that North European countries are also strongly involved in Northern Africa through economic or human flows. On the other hand, new member states of Eastern Europe claimed that a focus on the southern neighbourhood should not be a priority and that the EU should focus on the eastern dimension, toward countries such as Ukraine. On that occasion, Poland's foreign minister, R. Sikorsky, declared: "*In Poland we distinguish between the EU's southern and eastern neighbours: in the south we have neighbours of Europe, in the east we have European neighbours of the EU that – if they fulfil the criteria – will one day be able to apply for membership*".

3.3. Towards a synthesis of global relations of Europe and European territories

In this section, we synthesize major facts and figures concerning Europe's relations to the world and their impact on territorial development (figure 21, table 7).

In table 7, the importance of Europe in the world as well as the importance of internal links according to different types of flows and networks are systematically demonstrated. In the right column, we insist on the internal structure in these different types of flows, highlighting the level of concentration in major gateways and the unequal position of cities and regions according to the different themes studied in this project.

In figure 21, we distinguish between several types of territories regarding their vulnerability to globalization or their capacity to grasp opportunities from globalization. We must underline that this map is not the result of pure quantitative analyses but builds on the many quantitative analyses of the project. It is thus a qualitative typology of European regions derived from quantitative analyses from previous chapters and working papers. It is also essential to emphasize that vulnerability to global financial and economic shocks has not been integrated here, although the exercise helps explain huge differences between the economic growth of countries and regions after 2007, as illustrated for example by the contrast between Poland and the Baltic countries. Since we believe that the ways in which crises propagate are to a great extent unpredictable, this issue could not be tackled in the present project. We thus focused here on structural and productive features of European territories in the global economy.

We propose a brief description of the major stereotypes:

1. Gateway cities

Global and national gateways are deeply involved in various types of global and European networks and thus generate what can be called nodal advantages that reflect their strategic positions in the service and finance economy. In particular, in Eastern Europe, capital cities have benefited from higher growth rates, notably due to their increasing capacity to participate in the European and global service economy. However, this has resulted in territorial polarization within central and eastern countries despite the good economic performance of most regions. In comparison, in the dense and populated area

of Europe – from England to Central Italy – the growth of major gateway cities has been less evident in the last ten years. London and Paris have retained their strategic positions in global economic and financial networks and London remains the main global gateway for Europe.

2. *Low vulnerability areas: Territories standing high in the international division of labour*

Because of technological know-how and their capacity to maintain a position at the top of value chains, these territories have benefited and may benefit further from globalization, notably from emerging markets requiring huge transfers of industrial equipment and technologies. They are nevertheless very sensitive to global demand as illustrated by the recent global crisis, which has resulted for example in a dramatic drop of sales in the automotive and machine tool industries. We can distinguish between two types of territories within this group:

- territories with large companies, but also small and medium enterprises depending on major firms (Southern Germany, Sweden) seem stronger because of their capacity to meet the necessary R&D threshold;
- dynamic territories characterized by well interconnected small and medium enterprises (Central North Italy, Western Flanders etc.) seem more vulnerable despite their permanent rise in the value chain: on the one hand, offshoring processes have been intense in the low added value functions in which they were specialized; on the other hand, these enterprises do not seem big enough for large investments in R&D. Some of these areas occupy therefore an in-between position, notably in the so-called third Italy.

3. *In “between areas”*

These territories have been more active in attracting huge investments in medium technological segments of value chains. They include some regions of northern Spain and some areas in Portugal, as well as Central European regions. These regions have benefited in recent historical periods from low labour costs despite medium/high qualified labour, proximity to European markets, and embeddedness in continental value chains, attracting major corporate investments. The Mediterranean regions of this group appear now as quite fragile due to their higher labour costs compared to Central European countries, and unable to move up in the value chain and compete on higher technological levels where agglomeration economies benefit the most developed areas in Europe. They also depend on large non-national corporate firms, which may further affect their vulnerability. The situation faced by some Spanish or Portuguese areas might also characterize Central European economies in the near future, due to increasing competition in those medium segments from both Eastern Asia and neighbour countries such as Turkey. Moreover, these countries may have exhausted the positive growth effects resulting from catching up processes in sectors like agriculture, retail trade etc.

4. *High vulnerability areas: Regions specialized in labour intensive sectors and low functions*

We exclude from this group all “entrepreneurial territories” that have been able to highly diversify and move up in the value chains on the basis of endogenous development. We group here together regions located in southern and Eastern Europe mostly located in the Balkans. These territories rely on small and medium firms at the bottom of value chains in labour intensive segments of sectors like clothing. They cannot rise in the value chain because of the intense competitive pressure from eastern Asia or the European neighbourhood. In Eastern Europe, they have been able to maintain competitiveness due to their position in integrated European value chains, the proximity to the European markets, both explaining greater flexibility. However, as proved by the deep crisis in Northern Portugal, the increasing competition in these functions and the difficulty in rising in the value chain strongly impact on these regions. “Locked” in subcontracting and thus having limited access to resources, knowledge and freedom of decision-making, Central and Eastern European companies of many branches have mostly upgraded their

products and processes and seem to have very limited ability to change their functions within particular chains. This might result in a deep crisis as in Northern Portugal when labour costs reach a certain level.

5. ***“Non globalized” territories***

Many territories have very little economic relations outside Europe. We consider as “non-globalized” those regions having few relations with the rest of the world and thus facing weak global competition because of their specialization in the basic service economies. This notably concerns some of the Mediterranean regions, in Spain, Portugal, southern Italy or Greece. We nevertheless need to distinguish between dynamic tourist areas and the others. The former are indeed more subject to global constraints. Of course, it is true that they almost exclusively rely on European visitors. However, they attract visitors or residents from more “globalized” European territories. Furthermore, they have to face competition from neighbour Mediterranean tourist areas such as Turkey, Morocco or Egypt. In other territories that have been less dynamic in the medium term, economies still rely on agriculture and basic services. Generally speaking, through these specific cases of “non globalized regions”, we highlight here a major issue for all European territories: the importance of local, regional or national service (and even manufacturing) economies.

Flows	Macro-regional scale: Europe in the world	City/regional scale: European territories
Maritime Transport	<ul style="list-style-type: none"> - 86% of intra-European links, 95% when neighbourhood is included - Europe-related maritime flows include North and West-African coast, as well as Eastern Europe (Ukraine, Russia, Georgia). - NAFTA and Eastern Asia are the most important external partners 	<ul style="list-style-type: none"> - the five biggest port gateways concentrate 30% of extra-European links, far less than other parts of the world - port gateways are very specialized cities, and do not concentrate other major gateway functions
Air transport	<ul style="list-style-type: none"> - the ESPON territory accounts for 20% of inter-regional air connections - 84% of intra-European connections, 91% when neighbourhood is included - functional Europe includes countries from the Maghreb and Turkey, while former USSR Republics have rather intense connections between them - extra-European links are dominated by the flights toward the US (3.6% of links) 	<ul style="list-style-type: none"> - the biggest five European hubs concentrate 71% of extra-European links, more than the US, showing how far the European airspace is unified - long term, short term and daily mobility of the labour force is considered essential to development. Better accessibility is an essential competitiveness factor of major gateway cities but also of cities very well linked to these gateways
Trade of goods	<ul style="list-style-type: none"> - the ESPON territory accounts for 22% of inter-regional trade of goods - around 70% of the trade of goods are made between ESPON countries and close associates, 79% when neighbourhood is included - functional Europe goes beyond the ESPON area to include former USSR, some North African and Near East countries - strategic spaces of Europe include NAFTA with 7%, China with 3.9% and Japan and NIS with 2.4% 	<p>European territories have diversified positions in the international division of labour:</p> <ul style="list-style-type: none"> - major cities (global cities, national capitals, port cities) mainly participate in the global economy through their service economy - leading regions of North Western Europe and Northern Europe have very high positions in the division of labour - Mediterranean countries have converged towards the European average but still suffer from their in-between position, in that they are not yet competitive enough on the most advanced segments of production of goods and services, and have also lost market shares on more intensive segments - Central and Eastern European countries have rapidly converged to the European average but keep a low position in the value chain in which they are embedded and notably lack any commanding functions and thus suffer from the competition from extra-European countries with lower labour costs on low and medium technological segments
Trade of services, Networks of advanced producer services	<ul style="list-style-type: none"> - the ESPON territory accounts for 27% of inter-regional trade of services and the ESPON cities account for 33% of inter-regional cities' connectivity - 32% of the links of European cities are with other European cities, 39% when the neighbourhood is included - Europe is a densely integrated city network - NAFTA account for 19%, China for 6%, India for 5% in the networks of European cities 	<p>foreign direct investments have been a motor of growth in most Central and Eastern European economies, explaining a part of the catching up process that has been observed. The challenge is in any case to reinforce the territorial embeddedness of large enterprises controlled by large transnational companies</p>
Foreign direct investment	<ul style="list-style-type: none"> - the ESPON territory accounts for 31% of inter-regional in or out flows of FDI - 79% of all FDI are made between European countries - functional Europe integrates the neighbourhood but most Sub-Saharan Africa - NAFTA is by far the main partner with 15.5% of European FDI (sent or received) and Japan+NIS are far below with 2% 	
Knowledge	<ul style="list-style-type: none"> - in knowledge flows, distance and spillover effects are essential. Intra-European flows are also of major importance - in terms of knowledge, European flows concentrate with the other poles of the triad (USA and Japan), while China occupies a still marginal but growing share 	<ul style="list-style-type: none"> - knowledge absorption capacity and innovation are quite concentrated within the European space in metropolitan areas and high level manufacturing areas (northern Italy, southern Germany, Finland etc.) - knowledge dissemination is very affected by distance, potentially strengthening spatial polarization in favour of metropolitan and advanced technological areas
Migrations, students	<ul style="list-style-type: none"> - the ESPON territory accounts for 21% of inter-regional migrations and 23% of inter-regional student flows - 40% of non national migrants are European, but 64% when neighbourhood is included - the space of intense migratory relations includes Turkey and the Maghreb, as well as Southern America but not former USSR (internal migrations mainly) - strategic spaces for Europe are concentrated at the European borders 	<ul style="list-style-type: none"> - Central and East European countries remain unattractive for labour, while Mediterranean and Nordic countries have become as attractive as old immigrant countries of North Western Europe before the recent crisis - major metropolitan areas have been the most attractive spaces, notably for qualified labour and students, reinforcing their competitive advantages - southern Germany, Ireland, Spanish coastal areas, southern Sweden, northern Italy have been particularly attractive for all types of labour

Table 7 Synthesis about the position of Europe and European territories in the world flows

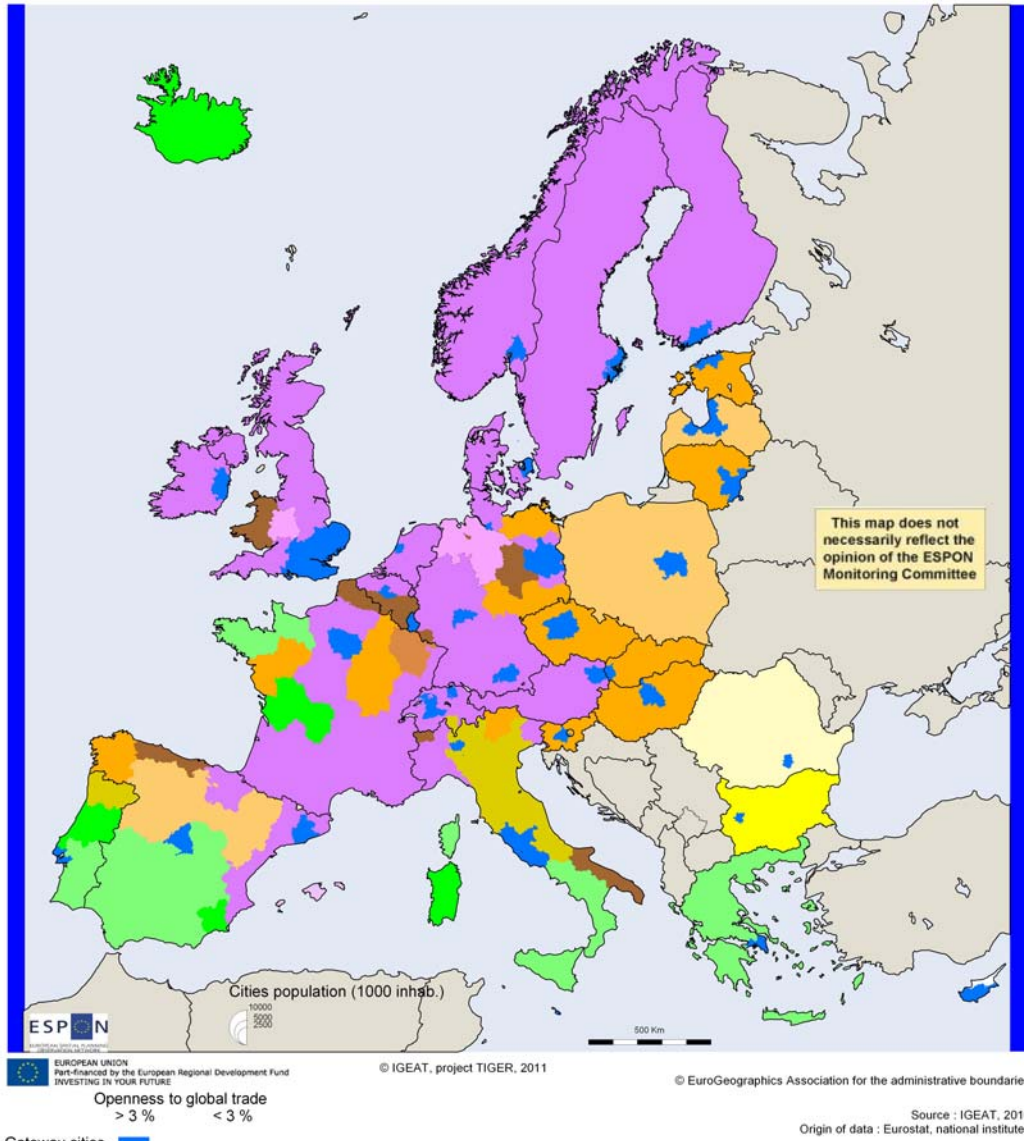


Figure 21. Vulnerability of European territories in the global economy

3.4. Policy options

The place of Europe and European territories in the global economy can be articulated at three different levels of interrogation:

- i. How should Europe position itself in the global economy?
- ii. Which territorial policies can help improve the position of Europe in the world, while at the same time not affecting territorial cohesion?
- iii. How can European territories improve their performance in the global economy?

The policy options which derive from the answers to these questions take into consideration the main political objectives in the relevant policy documents, mainly the EU2020 Strategy, the 5th Cohesion Report on Economic, Social and Territorial Cohesion and the Territorial Agenda of the European Union (as well as the related document "territorial state and perspectives of the European Union" (TS)).

3.4.1. The position of Europe in the world

In the main policy documents, the objective of growth gives way to different political objectives at the European level:

1. **Europe must act to avoid decline** (EU 2020);
2. **European growth will depend on its capacity to grasp opportunities from globalization** which are related notably to growing emerging markets (EU 2020, TS), to extra-European immigration (TS), and more generally to its capacity to maintain its position at the top of the value chain through innovation, or as a core in the international division of labour.
3. **The importance of neighbourhood and worldwide relationships:** "The success of the EU 2020 strategy will depend not only on the integration between Europe's regions but also on their integration with neighbours, and even with worldwide relationships" (Territorial State). The EU 2020 strategy adds that "The Europe 2020 strategy is not only relevant inside the EU, it can also offer considerable potential to candidate countries and our neighbourhood and better help anchor their own reform efforts. Expanding the area where EU rules are applied, will create new opportunities for both the EU and its neighbours".

How can this project inform about these objectives?

1. Europe will not avoid relative decline in the sense that the demographic and economic weight of Europe will go on decreasing. This is a long term trend that has been documented in this report, notably by highlighting the diminishing weight of Europe in most economic flows but also the decrease of its functional influence in many parts of the world. As stated by the "Europe in the world" ESPON project, only enlargement will allow the maintaining of the importance of Europe in the world, though enlargement process may affect the EU political coherence and efficiency. The European decline should not necessarily be considered a problem since this is relative to the development of large parts of the world as opposed to its actual level of prosperity. At the same time, as illustrated throughout this report, whatever the nature of flows considered, Europe remains a major global economic actor and this is not likely to change in the near future. To maintain its global position, Europe faces different types of decisive challenges to which we turn now:

2. How to grasp opportunities from globalization?

- **The thematic challenges of the EU.** As illustrated throughout this report Europe is characterized by its very high position in the international division of labour, indicating the specialization in medium and high segments of global production of goods and

services, as well as strategic position through the concentration of capital and commanding position, mainly in Western Europe. However, this position notably relies on several decisive challenges:

- i. the migratory challenge. Not only Europe faces the ageing and potential decrease of population but also needs to attract high qualified labour in order to maintain its position in the global economy. In this context, we notably show that Europe has been attractive for students from all around the world. However, in this context, Europe faces increasing competition from other parts of the world beside Northern America. Also, Europe should pay attention to the potential negative effects of its attractiveness toward qualified labour of developing countries;
- ii. the knowledge challenge. In order to maintain its position, Europe needs to progress in the knowledge economy and innovation processes.

- The “geographic challenges” of the EU or how to take opportunities from neighbourhood and emerging markets?

- i. The necessity of a coherent and shared strategy for the neighbourhood.

Though the importance of neighbourhood is mentioned in official EU texts, we cannot speak of an EU strategy for the neighbourhood apart from the idea that EU rules, notably EU economic rules, should apply to the neighbourhood to the benefit of both the EU and neighbouring countries. Two issues are important in this context: the lack of means and the issue of reciprocity. Apart from Turkey and Western Balkans, the financial means devoted by the EU to the neighbourhood remains relatively low and this raises the issue of the interests for neighbouring countries to fully collaborate with the EU. Moreover, the neighbourhood policy is a European strategy, whose objectives are not necessarily shared by neighbour countries. Hence, rather than a global strategic cooperation between all EU and neighbourhood countries, we observe a series of thematic and regional (Mediterranean, eastern neighbourhood etc.) cooperation.

- ii. Overcoming the weakness of Europe in emerging markets.

One of the main weaknesses of Europe in the globalization is its weak and declining (in relative terms) position in most major emerging markets, notably China, India and Brazil. This weakness will only be overcome through the thematic challenges listed in point 2 above.

3. Opening the debate on openness.

In addition to considerations above, it is also important when thinking the position of Europe in the world to reflect upon the openness of Europe in the global economy. It is not the aim here to contradict the official political objective of an open EU. This objective is specified in the relevant policy documents with reference to the idea that Europe's growth will depend on its capacity to grasp opportunities from globalization and will benefit from wider integration with the neighbourhood and more distant parts of the world. Nevertheless, it is important to introduce elements of reflection on this issue that derive from this project, notably in highlighting the unequal geographical impacts of openness.

On the one hand, Europe is highly and increasingly open to the world. Moreover, when looking at the qualitative position of Europe in the world, Europe as whole is maintaining a dominant position in the international division of labour. On the other hand, Europe is still a rather closed economy if we consider that the ratio between trade of services and goods and GDP (27%) largely overestimates the overall openness of the European economy, because trade is measured by total value of goods and services though GDP accounts for added value. The integration of European economies is illustrated by the intensity of cross border flows, the dense and integrated networks of firms as well as the existence of continental value chains (table 7). This functional Europe also goes beyond the limits of the EU to include Northern Africa, the near Middle East and the former Soviet Republics. Hence, from a political point of view, degree of economic openness has been and remains a political choice, albeit independent of territorial politics, market forces act at a global scale. Due to the high level of internal integration and the restricted

openness of large parts of the enlarged European territory, the EU of course has other possible political choices than the pursuit of total openness and trade liberalization. On the other hand, European openness is not territorially neutral because European territories have different capacities to grasp opportunities from globalization and some territories may be (and/or have been) affected by global competition, as illustrated by figure 21. Two main points must be raised here:

1) European territories are unequally open to external global competitive pressure.

Throughout the report, we highlight this unequal openness to the global economy which reflects and is a product of uneven development. Moreover, we found no impact of (direct) regional/city openness or embeddedness to/in the global economy on economic performances (WP4, WP7). It may be explained by the fact that the economic performance of cities also depends on very complex structural characteristics often inherited from long term trends.

Policy implications from these observations are important. On the one hand, the focus on the position of territories in the global economy derives from the interdependencies between the global and local which make it difficult to say that (closed) local economies are not to a certain extent globalized. For example, many European tourists in Mediterranean regions will be transferring into the local economy money earned in the global cities. There is thus a need for policy to pay regard to an interpenetration of global and local economies which goes alongside an enduring importance of proximity, especially in the (high and low value) service economy. On the other hand, there is no evidence that the wealth of European territories mainly relies on their openness and thus the EU should also pay attention to its “non globalized economy”, which is at the same time a source of social cohesion (local service economy) and potentially of local growth.

2) The position of territories in the international division of labour and within integrated value chains may explain unequal vulnerability to global economic competition in both the service and manufacturing economies.

Figure 21 described in section 3.3 illustrates this unequal regional vulnerability toward external competitive pressure. However, it has been shown how complex is the link between growth and territorial position in the global economy. For example, the high position of territories in the international division of labour at European and global scales as knowledge-intensive or high technological urban or regional economies does not mechanically explain regional or city level economic performances. Moreover, in the years before the crisis, convergence has been observed in the European territory, because new member states have benefited from high growth rates, as well as other “semi-peripheral” countries such as Spain, Greece and Ireland. Indeed, East European regions have remained competitive even at the bottom of the value chain (Balkans), but even more in medium segments (Central European countries), because of low labour costs, proximity to the European markets, flexibility and embeddedness in continental value chains, as illustrated by the Bulgarian clothing industry (WP 8a). Furthermore, the modernization of Eastern economies has also been accelerated by investments from West European firms in the basic service economy such as retail trade, allowing growth in productivity. This is typically a part of a catching up process observed in most new member states. In contrast, Mediterranean economies have revealed structural weaknesses in the global economy: they suffer from their “in between” position in the European and global economy, with higher labour costs than Central and East European countries but an inability to compete with the most competitive European territories in higher added value segments of production. But, we also indicate that East and central European regions may also suffer from this “in between” position because of rising labour costs and the slowing down of catching up processes.

To conclude, though increasing interdependencies between European territories and the rest of the world are a powerful process, the European economy remains a very

integrated continental economy. Moreover, the link between performance and the global orientation of the territorial economy is not as evident as it is often assumed. Finally, the European objective of increasing openness to the world is not territorially neutral since European regions have differing capacities to benefit from this.

3.4.2. Where to invest to face the challenge of globalization whilst reinforcing territorial cohesion?

In the territorial state and perspectives of the European Union, it is explicitly recognized that “Metropolitan areas play an important role in sustaining the EU’s global competitiveness” (EC, 2011b). This can be interpreted as a way to achieve smart growth since “EU metropolitan areas, while being of a relatively modest size, host the most advanced worldwide services and most innovative high-tech manufacturing sectors” (EC, 2011b). A third way of saying this is that metropolitan areas are decisive for Europe to grasp the opportunities of globalization. Of course, in this report, the role of metropolitan areas has been widely illustrated as the vital gateways of globalization: Europe needs ports, airports, centres of services, knowledge production and innovation as well as financial gateways that reach necessary thresholds of concentration to benefit from agglomeration economies in these different fields (see chapter 2.2.2). However, we also discuss the lack of empirical evidence that can confirm a direct link between growth in GDP across the EU as a whole and the wealth-generating capacities of the major European gateways. At the same time, the objective of inclusive growth explicitly refers to territorial cohesion in the EU 2020 strategy. In the Territorial Agenda 2020, this objective is made explicit: “Policy efforts should contribute to reducing the strong territorial polarisation of economic performance, avoiding large regional disparities in the European territory by addressing bottlenecks to growth in line with Europe 2020 Strategy”.

In this framework, two main alternatives exist in the territorial policy of the EU when the challenge of globalization is taken into account:

- 1) To invest mainly in the global cities, which are the gateways of globalization, in order to improve Europe’s position in the world;
- 2) Or, by putting the emphasis on territorial cohesion, should the EU instead persist in a redistributive regional policy aiming at providing conditions for better performance in less developed regions?

These are crucial questions for the regional policy of the EU and we do not pretend here to provide the answers but rather we put forward elements of reflection derived from the analyses presented in this report. We reflect here on two specific options however these should not necessarily be interpreted as alternatives – a nuanced balancing of priorities is likely to be necessary to support sustainable development and growth across a diverse territory: a redistributive policy toward less developed regions; a reorientation of regional policy putting more emphasis on gateway cities.

On the one hand, combining an opened up Europe with a shift toward major cities as a motor of growth in EU regional policy raises a number of issues:

- i. The link between economic growth and city connectivity and size cannot be clearly established by empirical evidence;
- ii. The idea that the wealth of major European and national cities will benefit non metropolitan territories is not empirically proven;
- iii. The impact of public investments toward the most developed areas of the EU can be questioned since, by definition, it will concentrate in globally networked cities, endowed with developed infrastructures (transport, education etc.) and specialized in high economic functions already at the top of value chains;
- iv. The increasing economic openness of Europe could potentially impact on the development of regions facing competition from less developed areas where labour

is cheaper, which are specialized in weak/medium functions or low/medium added value sectors and also regions where labour costs are already high even though technological know-how is still moderate, as we observe in many non metropolitan Mediterranean regions (in Southern Italy, Northern Portugal, Greece etc.). This weakness might also be observed in many areas of Central-Eastern Europe in the near future, once they have reached a certain development level, because of similar structural features, notably an “in-between position” in the international division of labour, combined with weak entrepreneurialism (endogenous development) and a weak territorial embeddedness of transnational firms that have massively invested there. In a global context of financial crisis and recession, regions still lacking the capacity to move up in the value chain would be at risk, thus a weakening of EU “territorial investments” in favour of less developed regions raises potential future problems. Hence, the historical justification of European regional policy, as a tool to help less developed regions to resist the economic shock due to their integration in the European market – and nowadays more and more to the global market – is still relevant today.

Hence, the vision of an open Europe combined with a wholesale reconfiguration of European policy, notably in favour of metropolitan areas as motor of growth, is highly questionable because the openness of Europe is likely to increase the vulnerability of weaker regions. The debate on European economic openness does not seem to be politically relevant today. In other words, since increased economic openness might reinforce regional inequalities, it can be argued that regional policy should continue to act to preserve territorial cohesion. As a consequence, it is argued here that the challenge of globalization makes regional policies to support growth in peripheral and under-developed regions and their cities through redistributive funding more pertinent than ever. In section 3.4.3 we present some elements of reflection on the orientations of such a redistributive policy.

On the other hand, it is clear from our results on the importance of cities in a global context that gateway cities must not be ignored in regional policy as has until recently largely been the case. Cities across the EU have a key role to play in adding value to production in the wider regional and European economies. It is important not to simply focus on the major agglomerations of London and Paris or even other major business cities in the economic “core” of Europe, as having fixed positionalities in the world economy. Of course their positions are strong compared with those of capital and other cities in peripheral regions but the latter can benefit from network connectivity with existing gateways, and as seen, developed cities (for example in the US), are subject to downward trajectories in an increasingly fluid global context. At the same time, as already discussed, it is far from clear that the position of cities in networks is enhanced sustainably by public sector boosterism policies. So it must be ensured that policy does not inadvertently compromise the sustained functioning of gateways and also that honed direct interventions ensure that funds (increasingly in the Western world, private sector funds) are raised and used to invest in public infrastructure developments necessary to maintain efficient essential services even in successful global gateways.

In conclusion, our findings suggest that effective regional policy needs to be informed by evidence bases that engage with the specificities of place roles, functions, growth and development support needs across the territory.

3.4.3. Policy options by types of regions

In the territorial agenda, it is stated that (page 7) “The use of social capital, territorial assets, and the development of innovation and smart specialisation strategies in a place-based approach can play a key role... Strengthening research, human capital, the capacity for innovation and bringing ideas to the market are essential... Furthermore, integration of local endowments, characteristics and traditions into the global economy is

important in strengthening local responses and reducing vulnerability to external forces” (EC, 2011a). However, this general assessment runs up against the unequal ability of territories to face European and global competition (figure 21). For example, at the bottom of the value chains, we have highlighted the difficulties of Bulgarian firms in moving up the chains both because of the local contexts they are embedded in (low qualifications for example) and their present weak position in value chains that are controlled by West European firms.

We finally propose some policy options that reflect the territorial segmentations identified in our research:

1- *Gateway cities at a global, European and national scale.*

We have underlined the importance of these for the European economy. We have also highlighted the apparently weak relationship between city connectivity and economic performance in GDP in the last ten years with the exception of Eastern and Nordic capitals, as well as London. However, no connected gateway city performs badly and there are also signs that they have been more resistant to the recent crisis, at least in terms of inward flows of real estate investments (WP 9).

What can we draw from this in policy terms?

- 3) Urban policies have a weak impact on city connectivity and improved city connectivity will not necessarily result in increasing competitiveness as measured by GDP. Hence, public sector policies aiming to attract investments in higher and interconnected global functions may be inefficient both at the urban and European scales. We argue here that this process is probably working largely independent of state intervention;
- 4) Priorities of major cities could focus on these major issues that arise from concentration and agglomeration: the challenge of increasing social polarization; the problems of infrastructure and congestion, within metropolitan areas but in addition, increasingly in extended urban functional areas which do not correspond to administrative boundaries yet which present a threat to sustainable development and their position in European and global networks. The major issues here relate to matters of strategic and joined-up governance.

2 – *“In between” areas*

These regions are characterized by specialization in medium functions and intermediary sectors in the global economy. They have been rising in technological skills during the past decades. But they have also in common their inability to upgrade beyond a certain threshold combined with the risk related to exogenous development (related to big foreign firms) they benefit from, and a weak entrepreneurial fabric. Moreover, in this context, Mediterranean territories have had to face the growing attractiveness of regions from Central European regions, with lower labour costs but qualified workforce. This may explain the structural crises faced by Mediterranean manufacturing regions while in Central/Eastern Europe, an “in-between” position may result in the near future from increasing wages and the rising position of some neighbour countries and Eastern Asia.

The challenge for these regions is to reinforce the territorial embeddedness of large foreign firms. There is probably no other way for these regions than “strengthening research, human capital, the capacity for innovation”, allowing also to move up in the value chains which can be assisted by the development of advanced services such as financial, management consultancy, advanced logistics etc in regional gateway cities.

3 – *High vulnerability areas*

In an open Europe, low value functions will probably continue to decline, mainly in the Balkans, Northern Portugal and other Mediterranean areas. However, we highlight the low capacity of these regions of moving up in the value chain when their firms are locked into subcontracting positions. This has been illustrated by the crisis faced by Northern Portugal. We do not consider the “Marshallian districts of small and medium enterprises”

to be part of this group because they have been moving up within the value chains and have been able to diversify their economy, building on endogenous capacities. But in the Balkans, this capacity is just not there and their future growth will require further massive assistance from the EU to strengthen their structural assets and reinforce their human capital as well as their basic infrastructures.

4 - *The importance of the local economy across European territories*

Europe is far from an open economy, it is very much an integrated economy. In European territories, basic services play a vital role. First, they constitute an important share of the local economy. This relates to the central paradox of globalization: while all economic sectors have become more and more open, with a sudden acceleration in the nineties, developed economies shift toward less open sectors of services, resulting overall in the moderate increase of openness of developed economies such as the EU and the NAFTA. Second, basic services are essential to social cohesion. Third, these services are in a modern economy an essential basis for long term economic growth.

3.5. Future perspectives

We come back here on the two functional scales that have been identified to understand Europe's position in globalization processes.

1. The macro-regional scale: Europe in the world

This project has certainly synthesized a huge material to position Europe in global networks and flows. It has also, as far as possible, taken a long term perspective to show how the position of Europe has evolved. However, this project mostly focuses on economic relations. Moreover, innovative research has been carried out to position EU as a political entity in the world. Though some attempts have been made in this direction, more research is needed in non economic types of relations, especially in the cultural, educational and political fields. In this perspective, formal and informal networks should be identified between European entities and the rest of the world, such as networks of universities, of NGOs or, more generally, from the civil society.

2. The city/regional scale

If the assessment of the European position in global flows relies on solid data, the position of European territories in global flows and in the international division of labour still needs further investigation. In particular, several decisive questions with strong political implications need more evidence-based research. In this respect, the question of the impact of openness on regional performances is still open. This study provides evidence of a weak direct link between regional/city participation in the global economy or embeddedness in global networks and regional performances. But they rely on partial data, specific scales and limited periods of time. Moreover, the consequences on social cohesion of this growing embeddedness of European territories in the global economy are still to be investigated.

We identify four major questions for the future of regional development in Europe regarding globalization challenge:

- 1) **Do regions and cities benefit from increasing openness?** This project has informed about this issue by showing that no simple relationship can be identified between the position of cities in global networks and their economic performances. We also show that the geography and product specialization of regional trade is not well correlated to regional performances. However, further investigation is needed here. In particular, we still require a more complete and systematic assessment of the position of regions in the global economy. Two research directions are possible in this context:

- In this project, we face the problem of a lack of data on flows at regional level. Strong efforts have been made to get data on regional trade, but they do not exist for all European countries. A major challenge would be to get data on regional flows more systematically, notably data on regional trade including service exchanges.
 - The second direction is a more systematic assessment of the position of regions in value chains, which has been exploited through two case studies in clothing and automotive industries. Since value chain analysis is a very time consuming research mainly derived from case studies, the challenge would be to rely on existing literature and use all the existing material to position regions in different value chains. This systematic meta-analysis could be completed by specific case studies trying to fill the gaps in literature.
- By combining both approaches, we could go a step further in assessing the position of European regions in the international division of labour. When this position is completed, a systematic assessment of the relationship between openness, position in the international division of labour and regional performances will become possible.
- 2) **Do European regions benefit from the participation of major cities to global networks, and how?** It has been shown that in the recent period, metropolitan areas do not necessarily perform better than the others, though this assessment needs to be confirmed in the period of crisis Europe has faced since 2008. But, theoretical and political discourses insist on the importance of metropolitan areas as driving force for competitiveness in a multi scalar perspective. Europe needs London as the main European gateway in advanced services; Poland relies on Warsaw to better connect its territories to the global economy, etc. That being said, further research is needed here to get empirical evidence on this topic.
- 3) **What are the social consequences of increasing openness at regional level in Europe? Can we identify winners and losers within regions and cities?** Globalization and openness have been shown not to be territorially neutral throughout Europe. Further research needs to inform about social consequences of globalization, notably in terms of social polarization, though it is not evident to isolate the effects of globalization from other major drivers of social polarization, in particular in big cities. The unequal impact of globalization on territories and social groups is also reflected in political behaviours showing growing fears and reluctance toward European construction, globalization and openness in general. Analyzing the geography and sociology of such political behaviours, notably through the rise of extreme right parties in more and more European countries, could provide useful information about winners and losers of globalization.
- 4) From a political perspective at regional/local/urban scale, the main question is “**what can a region do to face the challenge of globalization**”? In this context, we need to investigate more concretely the way regions and cities have actually faced the challenge of globalization, typically something that could be investigated in a priority 2 project. For example, most cities have chosen to increase their participation in global networks as well as to compete to attract major, wealthy global consumers, etc. However, some cities may have made other choices. So a series of decisive questions emerge:
- What can a city/region do to increase its participation in the global economy?
 - What are the consequences of policies aimed at increasing participation in the global economy, notably in social terms?
 - Can we identify alternative policies at regional and city level?

This important issue can only be dealt with through case studies of comparable cities having chosen different political ways to tackle the challenge of globalization.

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