

# Opportunities for the internationalisation of SMEs

Background Document 1:

International Trade Flows and Economic  
Development in Target Countries

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# Chapter 1. Summary and introduction

The goal of the Lisbon strategy was that Europe should become the world's most knowledge intensive and competitive region by 2010. Achieving the goal would imply that Europe was exporting high-tech products and importing low-tech products. The present analysis indicates that, as far as small and medium sized enterprises are concerned, Europe is not there yet. In most markets analyzed medium-tech sectors do better than high-tech sectors. However, European medium- and high tech sectors do better, as one would expect, than low-tech sectors.

The analysis is part of a larger study on Opportunities for the internationalisation of SMEs. The study has three key objectives:

1. To analyse the market potential for SMEs in a number of third country markets
2. To examine different options to better connect European SMEs to these markets
3. To evaluate and propose country and sector specific measures to facilitate the access of European SMEs to these markets

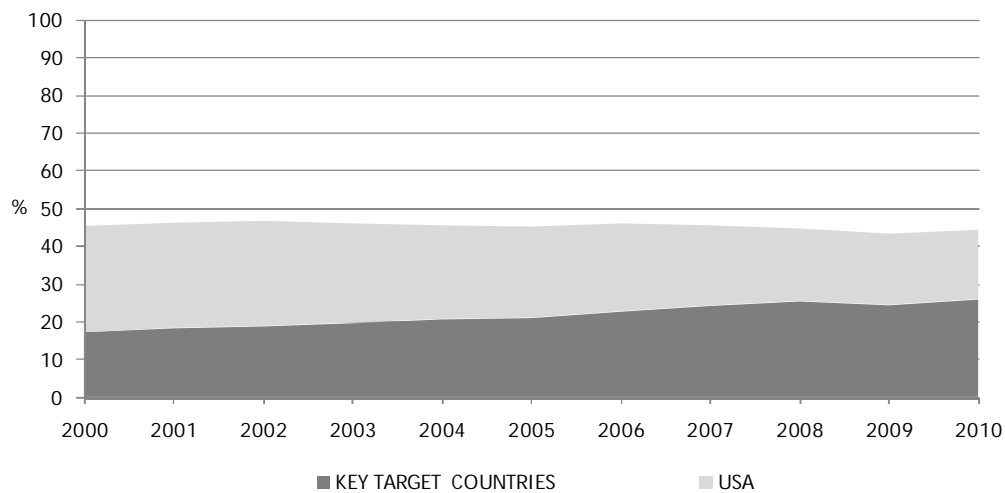
The study focuses on 12 countries: seven key target markets (Brazil, China, India, Japan, Russia, South Korea and Ukraine) and five other target markets (Armenia, Azerbaijan, Belarus, Georgia and Moldova). Lastly, exports to the US are used as benchmark in part of the analysis of trade and foreign direct investment (FDI).

Figure 1 illustrates the increasing importance of the seven key target countries as the share of exports to these countries in overall EU exports has risen from 17.3 % in 2000 to 26.1 % in 2010. Conversely, the relative importance of the US as an importer of EU goods has decreased over the period – export to USA made up 28.0 % of the total value of EU exports in 2000, but only 18.0 % in 2010.

Figure 1 also illustrates the impact of the financial and economic crises starting in 2008. The effect of the crisis on European exports has been substantial. The export of EU to external countries has declined by more than 260 billion € from 2008 to 2009, rising again from 2009 to 2010. Thus, EU exports in 2010 were approximately at the same level as in 2008 (figure 2 below).

Figure 1 finally illustrates the large differences in volume of exports to the seven key target countries and the US. Since 2000 exports to the seven key target markets have increased considerably while exports to the US have decreased.

Figure 1: Share of EU27 external export (value)\*  
Key target countries and USA



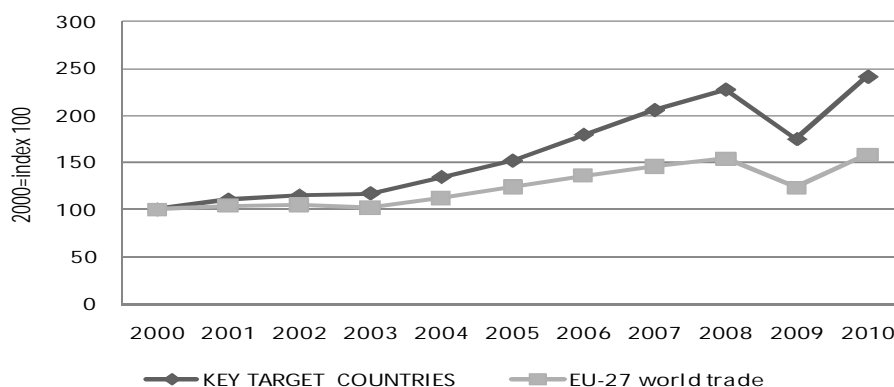
\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).  
Seven key target countries: Brazil, Russia, India, China, South Korea, Japan, Ukraine.

Source: Oxford Research and Eurostat

Figure 2 shows how the crisis has affected export to the key target countries more than the total world exports, as the decline is sharper from 2008 to 2009. At the same time exports to the key target countries have caught up faster from 2009 to 2010 than total world exports.

Looking at the potential economic growth of these seven emerging markets beyond 2010 the prospects of economic recovery looks optimistic, as IMF projects a 4 % growth in Brazil, 10 % in China, 8 % in India, 2 % in Japan, 5 % in Russia, 5 % in South Korea and 6 % in Ukraine all by 2014.

Figure 2: Development in EU-exports 2000-2010\* (value)  
SME sectors and non-SME sectors



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).  
Seven key target countries: Brazil, Russia, India, China, South Korea, Japan, Ukraine.

Source: Oxford Research and Eurostat

The study focuses on internationalization opportunities for European SMEs. However, neither trade statistics nor FDI-statistics distinguish between exports or investment from SMEs on the one hand and non-SMEs on the other hand. First, as a proxy for SME exports, manufacturing sectors have been divided according to the share of SMEs in total value added in European production<sup>1</sup>. Manufacturing sectors where SMEs account for more than 50 pct. of total value added has been named “SME sectors”. Second, the links between SME sectors and product groups have been identified based on Eurostat conversion tables. Third, and last, product groups have been divided in high-, medium and low-tech products again according to Eurostat conversion tables. The result in terms of high-, medium- and low-technology products from SMEs is presented in table 1<sup>2</sup>.

Table 1. SME products according to technology level and industry.

Sector	Industries within sector
High technology	Manufacture of medical, precision and optical instruments
Medium technology	Manufacture of machinery and equipment Manufacture of rubber and plastics Manufacture of other non-mineral products Manufacture of fabricated metal products
Low technology	Publishing, printing and reproduction of recorded media Manufacture of wearing apparel Manufacture of furniture Manufacture of textiles Manufacture of wood and products of wood and cork Tanning and dressing of leather
Source: Eurostat	

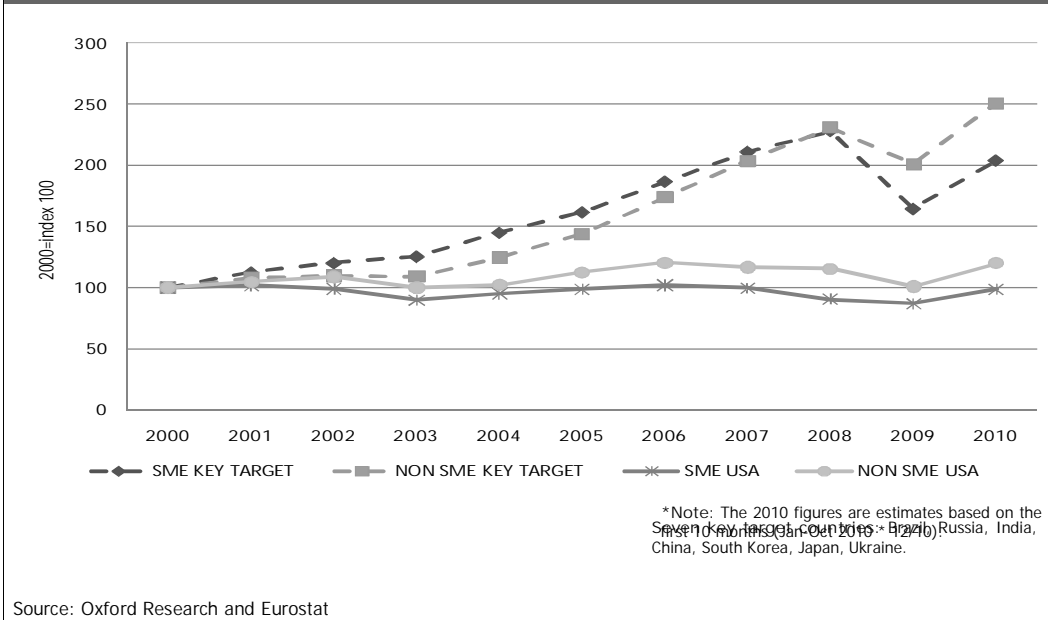
Looking at figure 3, it is clear that the non-SME sector has done slightly better, or at least not worse, than the SME sector regarding the key target markets. From 2008 to 2009, the exports in the SME and non-SME sectors dropped significantly, but increased again from 2009 to 2010. This is encouraging as it suggests further opportunities for the SME sector. Especially, since it could be expected that it would primarily be the large companies that would have an easier time getting into these key markets.

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<sup>1</sup> The percentage of SMEs that do export is not necessarily a direct indication for the contribution of SMEs to the countries' export and economic prosperity. If a country has a well established export infrastructure with specialised international trading houses catering efficiently for foreign markets, many SMEs could be flourishing by producing for foreign markets and be contributing to total value added in the country without themselves directly delivering and invoicing to foreign customers.

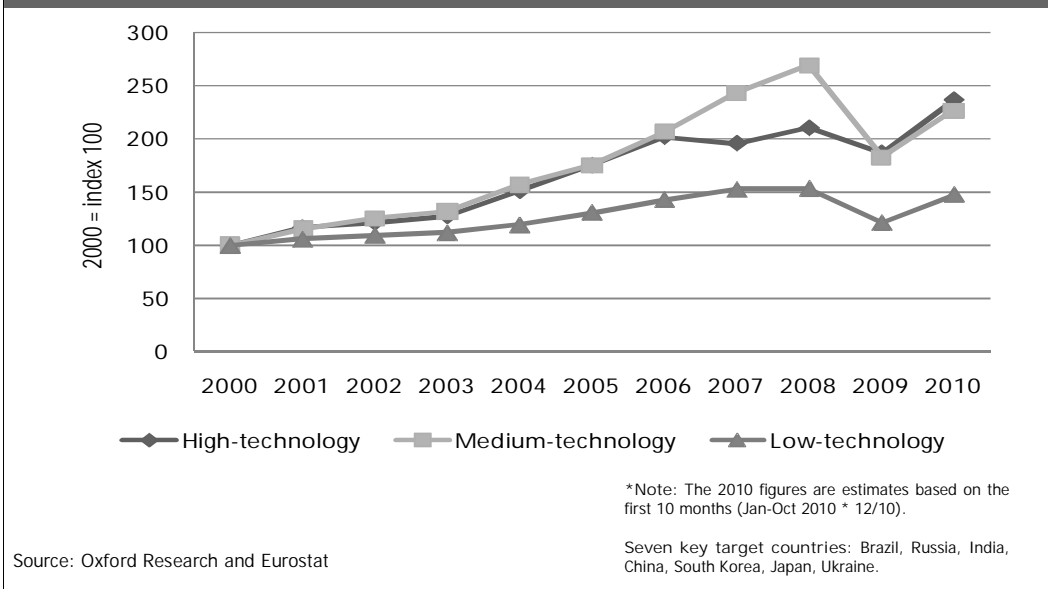
<sup>2</sup> Eurostat has divided the industries in to four categories, including high, medium-high, medium-low and low – in this analysis the two medium categories have been combined.

Figure 3: Development in EU-exports 2000-2010\* (value)  
SME sectors and non-SME sectors



Looking solely at the development in the SME sector in figure 4, it is worth noticing that the medium and the high technology sectors have done relatively better compared to the low technology sector.

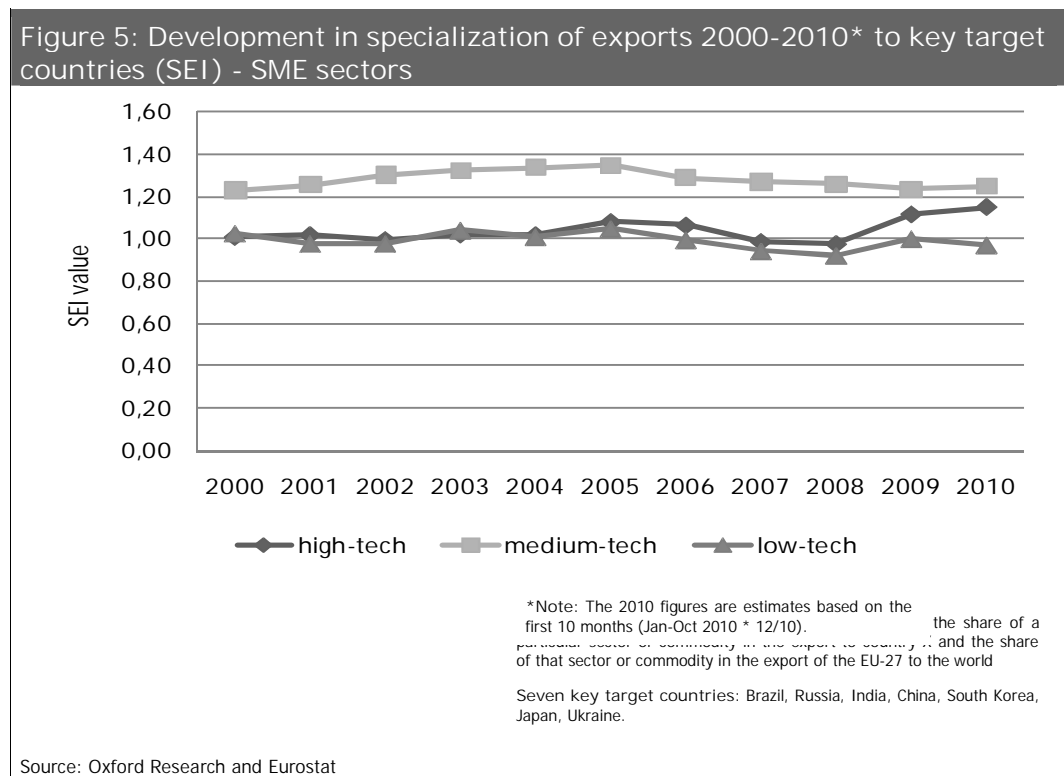
Figure 4: Development in EU-exports 2000-2010\* to key target countries(value) - SME sectors





### Looking forward

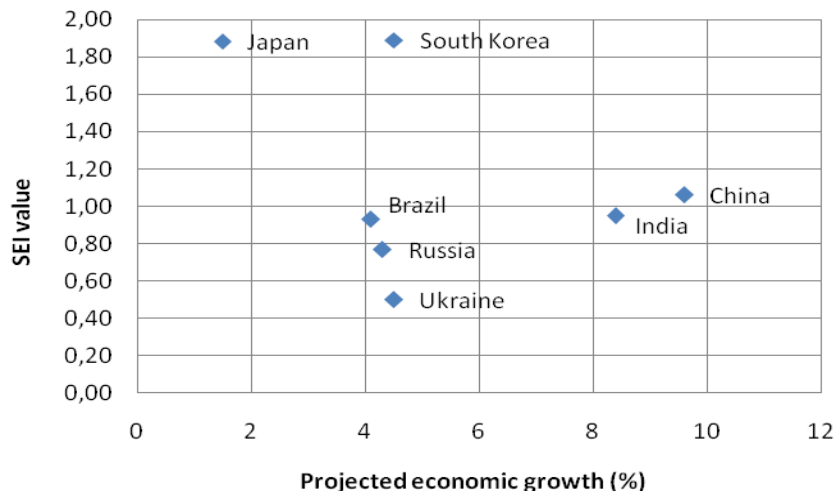
As shown in figure 5, the low technology sector shows the least degree of specialization for the seven key target countries in total. Specialization is measured as SEI (Sector export index), a method to measure the relative importance of a sector taking into consideration the total size of exports to the country and the sectors share of total exports to the world. An indicator lower than 1.0 shows that the share of low tech in exports to the seven key target countries is less than the share of low tech in the overall EU export. High tech exports are doing slightly better and medium-tech shows the largest export specialization of the three industry groups. High tech exports are doing only slightly better than low-tech, suggesting that these sectors need more attention in order for the EU to benefit from the high growth rates in these markets. However developments over the last year are encouraging as high tech increased after 2009.



### Correlation between projected growth and underspecialization

The following matrices show the correlation between projected economic growth and specialization by high, medium and low technology sector.

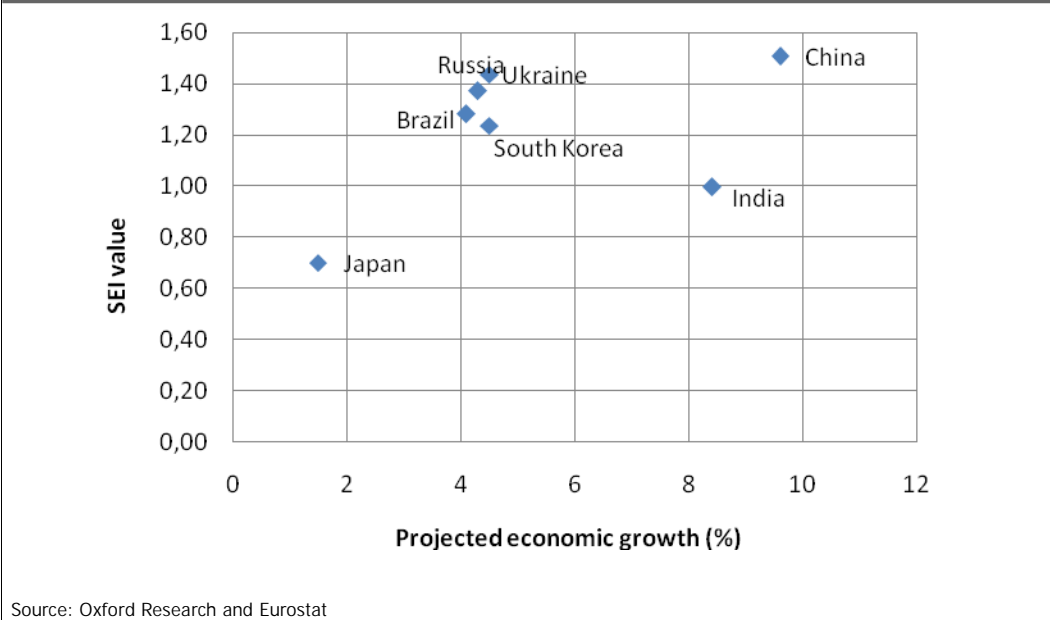
Figure 6: Internationalization opportunities for SMEs in high technology sectors as a function of growth and specialization



Source: Oxford Research and Eurostat

Figure 6 for the high technology sector shows that, high tech exports to Japan is highly specialized, i.e. a SEI value of about 2. However, market growth for Japan is expected to recover only slowly from the current economic crisis. High specialization is about average (1.0) for China and India but both these markets have huge potentials in terms of predicted future growth as well as actual size. So especially business support focusing on high tech exports to China and India deserves much attention. High-tech exports to Brazil are about average in terms of both specialization and predicted market growth while high tech exports to both Russia and Ukraine are under-specialized and the markets are predicted to recover only slowly from the current economic crisis.

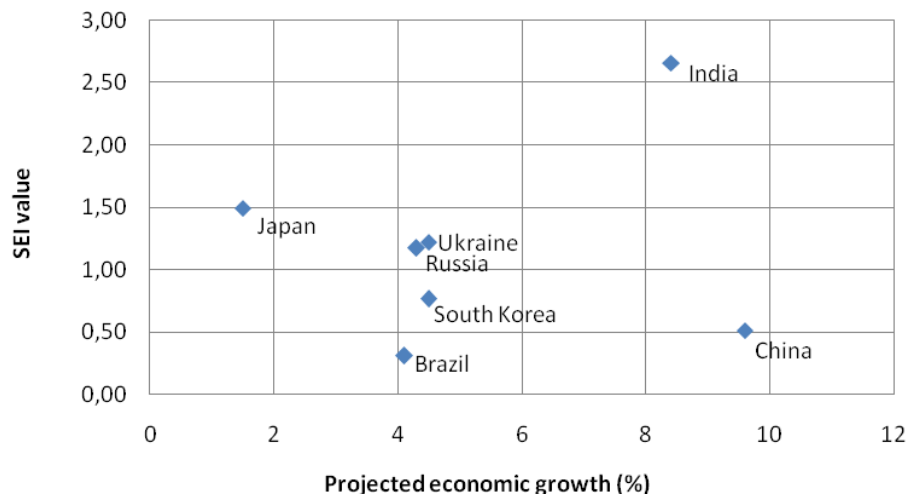
Figure 7: Internationalization opportunities for SMEs in medium technology sectors as a function of growth and specialization



The medium technology sectors are specialized with respect to six out of seven key target markets. Only medium-tech exports to Japan, the technologically most advanced of the seven key target markets, is under-specialized. Also, the Japanese market is expected to recover only slowly from the economic crisis. For the remaining key target markets medium-tech exports are specialized above average and especially the Chinese and the Indian markets are promising in terms of volume and expected future market growth. Therefore business support may especially focus on medium tech exports to India as the specialisation is lower for this fast growing market than for five of the seven other key target markets.

Low technology sectors are specialized both with respect to advanced markets such as Japan and at less developed markets such as Russia and Ukraine. The low technology sectors have by far the highest level of specialization with respect to the Indian market, indicating that the share of EU exports of low technology to India comparatively are higher than the share of low technology in the overall EU export. With respect to growth markets such as China the low technology exports exhibit a specialization well below average.

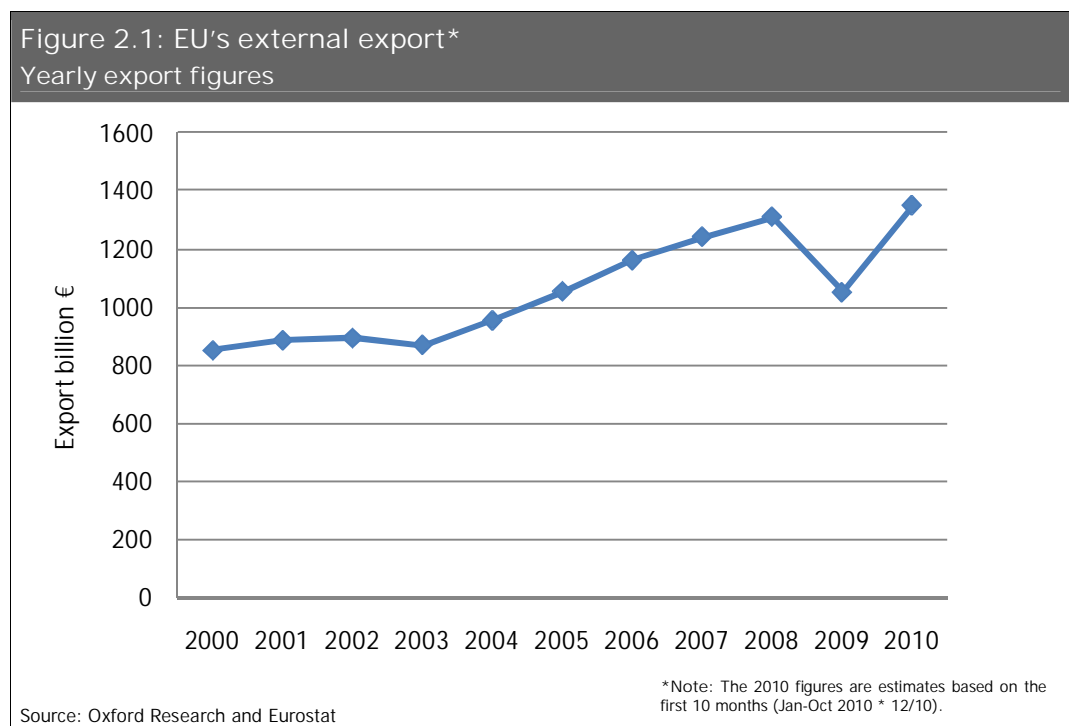
Figure 8: Internationalization opportunities for SMEs in low technology sectors as a function of growth and specialization



Source: Oxford Research and Eurostat

## Chapter 2. Overview

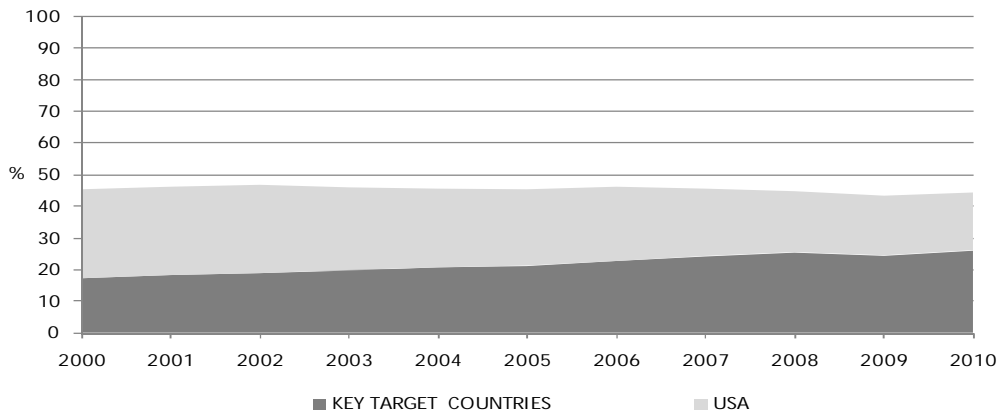
The effect of the crisis on European exports has been substantial. The export of EU to external countries has declined by 260 billion € from 2008 to 2009 and has seen a rise from 2009 to 2010 by 299 billion €. Thus, EU exports in 2010 are now at a higher level than 2008 (figure 2.1).



The analysis presented in this report focus on EU27 exports to three groups of countries: seven key target countries (Brazil, China, India, Japan, Russia, South Korea and Ukraine), five other target countries (Armenia, Azerbaijan, Belarus, Georgia and Moldova) and the US.

Figure 2.2 illustrates the increasing importance of the seven key target countries as the share of exports to these countries has risen from 17.3 % in 2000 to 26.3 % in 2010. Conversely, the relative importance of the US as an importer of EU goods has decreased over the period – export to USA made up 28.0 % of the total value of EU exports in 2000, but only 18.0 % in 2010. Exports to the five other target countries account for less than 1 per cent of total exports and therefore do not appear in the graphic illustration.

Figure 2.2: Share of EU27 external export (value)\*  
Key target countries, other target countries and USA



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

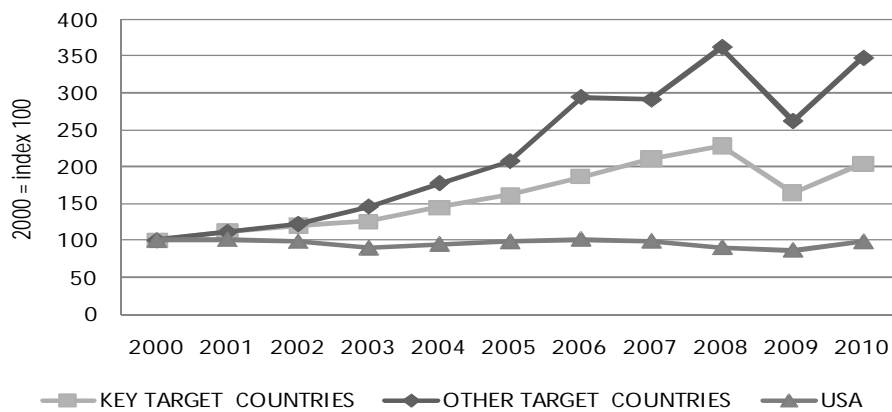
Seven key target countries: Brazil, Russia, India, China, South Korea, Japan, Ukraine.

Five other target countries: Armenia, Azerbaijan, Belarus, Georgia and Moldova

Source: Oxford Research and Eurostat

Looking solely at the development from 2008 to 2009, exports of the SME sectors to the five other target countries fell by 27.7 % compared to 27.8 % for the seven key target countries and 3.8 % for the US.

Figure 2.3: Development in exports SME sectors 2000-2010\* (value)  
Key target countries, other target countries and USA



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

Seven key target countries: Brazil, Russia, India, China, South Korea, Japan, Ukraine.

Five other target countries: Armenia, Azerbaijan, Belarus, Georgia and Moldova

Source: Oxford Research and Eurostat

Another distinction, between the three groups of countries as export markets for the EU, is the varying importance of different industries (table 2.1). The chemical industry is by

far the most important exporter to the US – the value of its exports is more than double the size of the second largest export industry (Manufacture of motor vehicles, trailers and semi-trailers).

The chemical industry is also of great importance for the key target countries, however machinery and equipment is of even larger significance in terms of export value. For the other target countries, the chemical industry and machinery and equipment make up the main export goods.

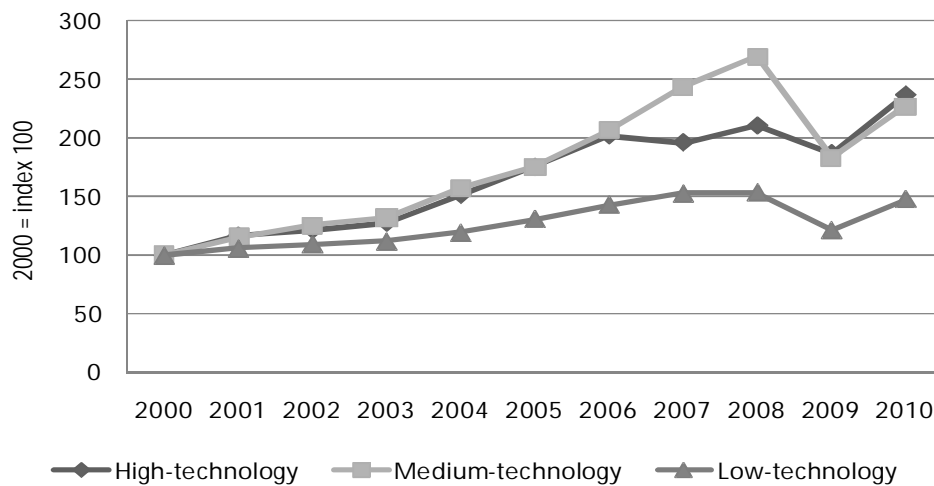
Sector	Key target countries	Other target countries	USA
Mfg. of chemicals & chemical prod.	43,019	1,118	46,855
Mfg. of motor vehicles, trailers & semi-trailers	37,916	1,185	23,857
Mfg. of machinery & equipment n.e.c.	54,142	1,838	20,079
Mfg. of other transport equipment	12,492	201	15,423
Mfg. of medical, precision & optical instruments	13,193	263	11,684
Mfg. of coke, refined petroleum prod. & nucl. fuel	3,492	420	11,155
Mfg. of food prod. & beverages	13,349	554	9,288
Extraction of crude petroleum & natural gas	37	0	2,501
Mfg. of electrical machinery & apparatus n.e.c.	17,061	508	7,683
Mfg. of furniture; manufacturing n.e.c.	9,995	455	6,088
Mfg. of basic metals	11,289	282	7,495
Mfg. of radio, telev. & com. equipm.	10,115	283	5,619
Mfg. of fabricated metal prod.	8,612	390	3,706
Mfg. of office & computing machinery	4,427	154	2,679
Mfg. of rubber & plastics prod.	6,369	304	3,706
Mfg. of other non-metallic mineral prod.	2,982	176	2,244
Mfg. of wearing apparel; dressing & dyeing of fur	4,179	156	1,406
Tanning & dressing of leather	2,992	75	1,478
Mfg. of paper & paper prod.	5,655	161	1,596
Mfg. of textiles	2,799	245	1,417
Agriculture, hunting & related service activities	3,411	227	734
Mfg. of wood & prod. of wood & cork	1,628	81	531
Publishing, printing & reproduction of rec. media	851	32	481
Mining of metal ores	468	5	466
Other mining & quarrying	576	15	112
Fishing, operation of fish hatcheries & fish farms	209	6	28
Mfg. of tobacco prod.	2,433	41	4,580
Mining of coal & lignite; extraction of peat	40	0	3
Forestry, logging & related service activities	103	1	0

Source: Eurostat

The following three figures, 2.4-2.6, show how the three technology sectors have developed from 2000 to 2010.

The low technology sector has experienced the least positive development of the three sectors in the key target group, the other target group and the US. Especially the high technology sector and also the medium technology sector are the two sectors that generally have had the most positive development throughout the period.

Figure 2.4: Development in exports 2000-2010\* (value)  
Technology sectors – key target countries

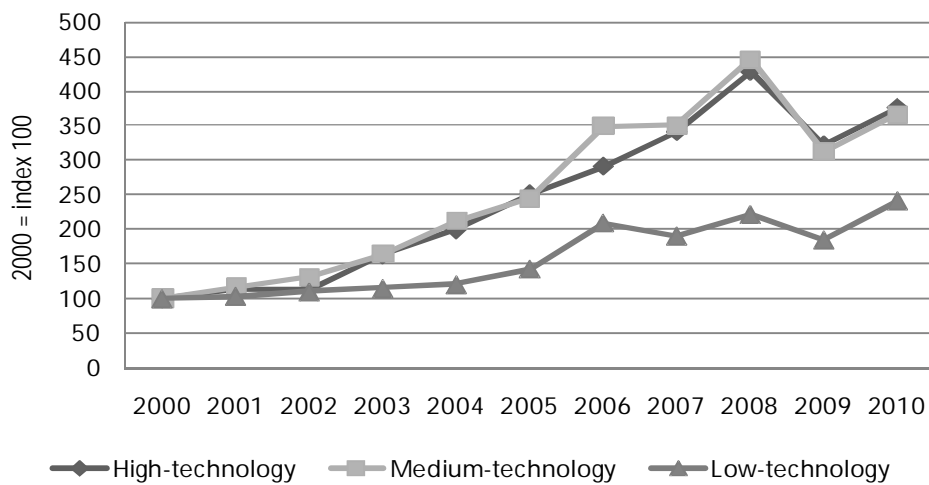


\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

Seven key target countries: Brazil, Russia, India, China, South Korea, Japan, Ukraine.

Source: Oxford Research and Eurostat

Figure 2.5: Development in exports 2000-2010\* (value)  
Technology sector – other target countries



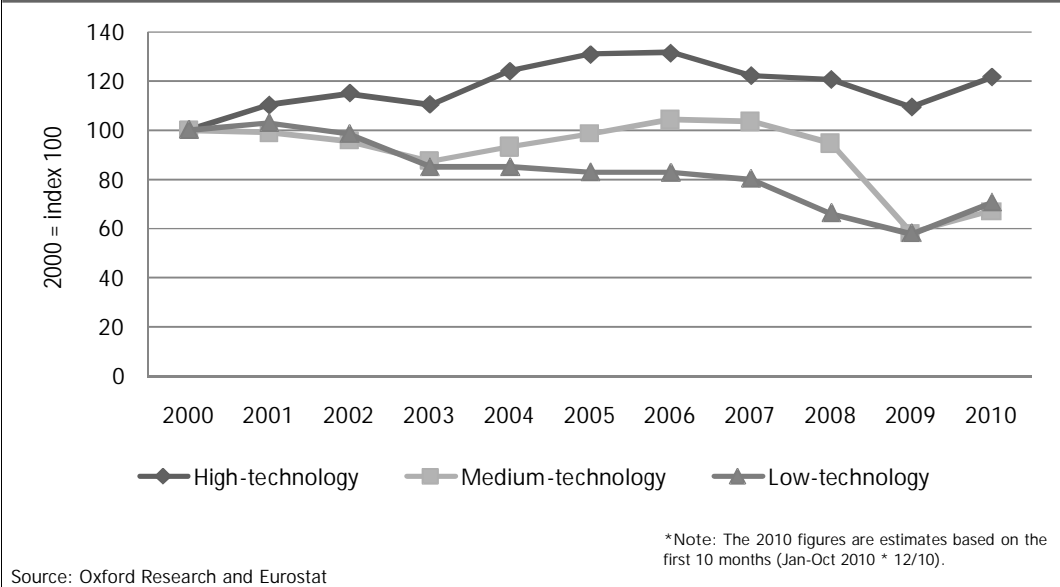
\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

Five other target countries: Armenia, Azerbaijan, Belarus, Georgia and Moldova

Source: Oxford Research and Eurostat



Figure 2.6: Development in exports 2000-2010\* (value)  
Technology sector - USA





## Chapter 3. Export to key target countries, other target countries and the US within important SME-sectors

The aim of this chapter is to focus on the export of industries, where SMEs play a large economic role.

The subsequent figures 3.1-3.3 summarises the different developments of exports for SME industries in each of the three groups of countries. The non-SME sectors have generally performed better than the SME sectors for all the export areas.

It can be seen from figure 3.1 that the gap between the SME dominated and the non-SME dominated sectors' exports to the key target countries increased from 2008 to 2009, as the development in exports for the SME sectors fell significantly. However in the period from 2009-2010, the exports for the SME sectors have increased at the same level as for exports for the non-SME sectors. Whether the gap will continue to narrow or start expanding again will be of great interest in the coming years.

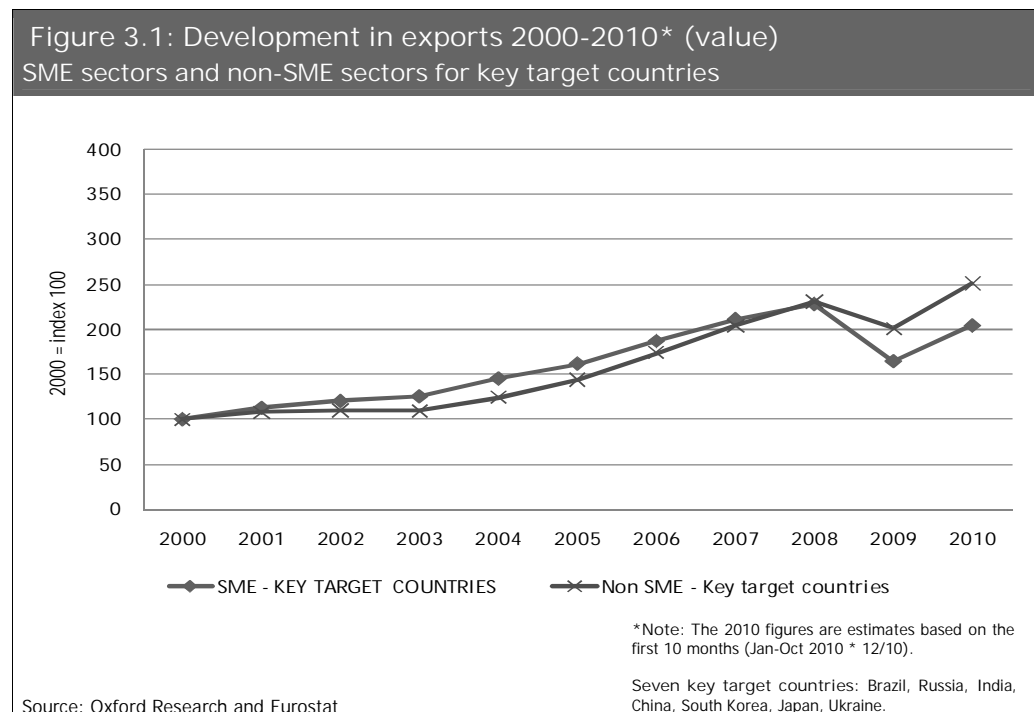


Figure 3.2: Development in exports 2000-2010\* (value)  
SME sectors and non-SME sectors for other target countries

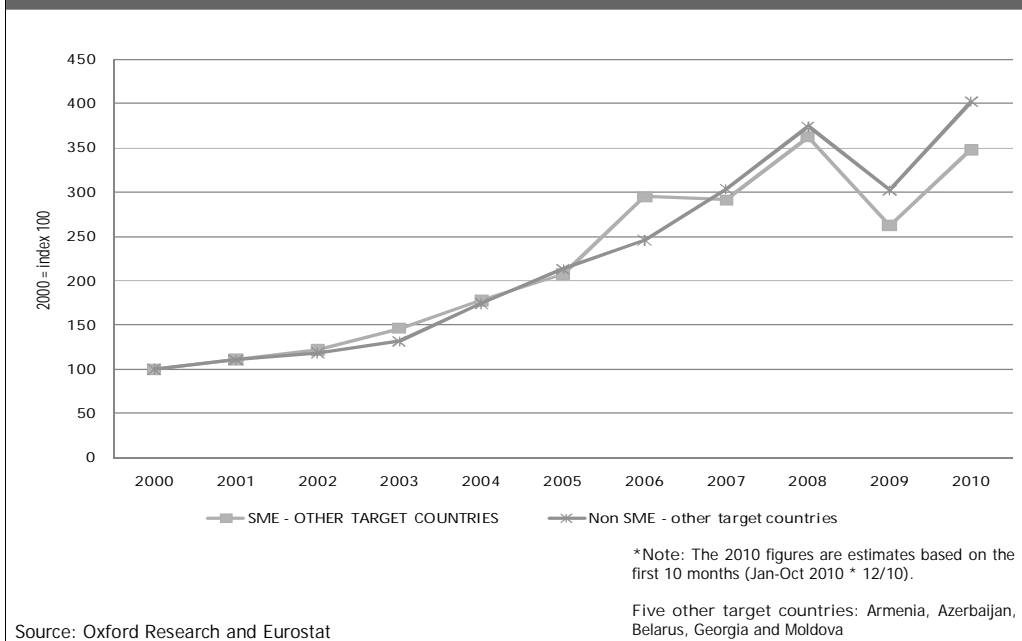
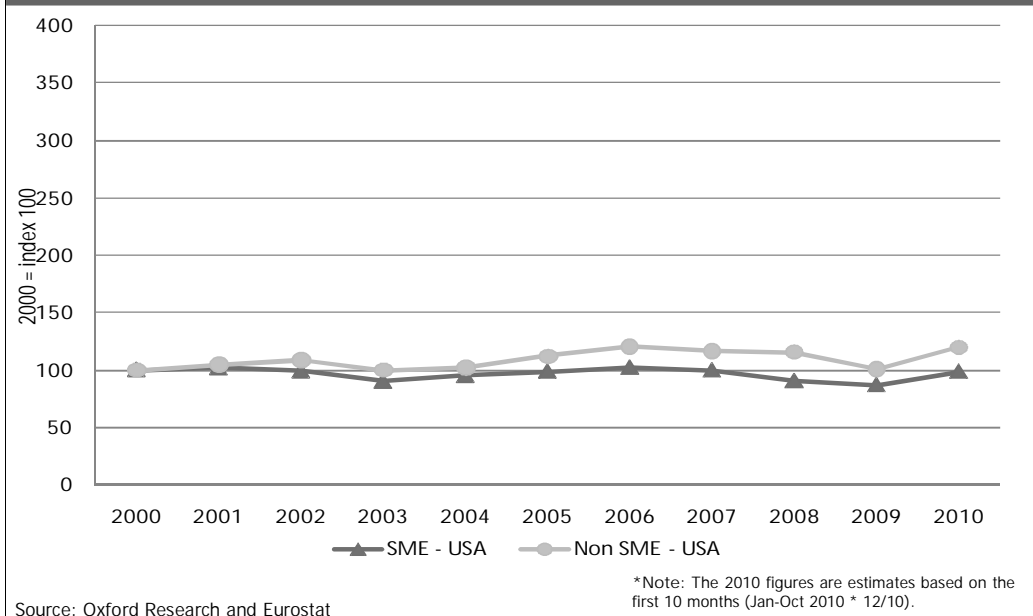


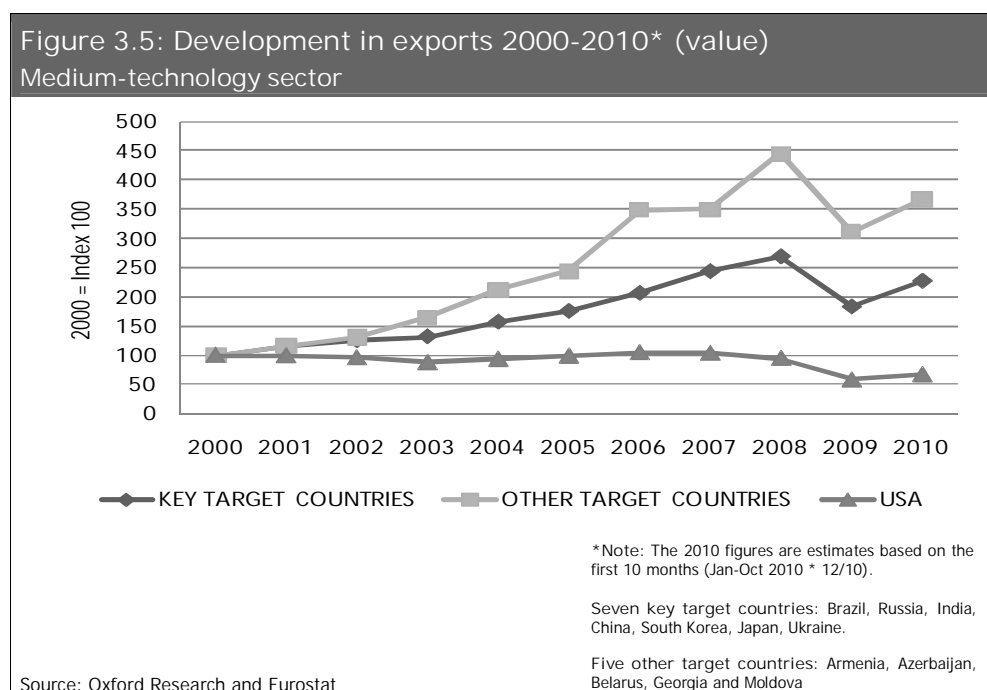
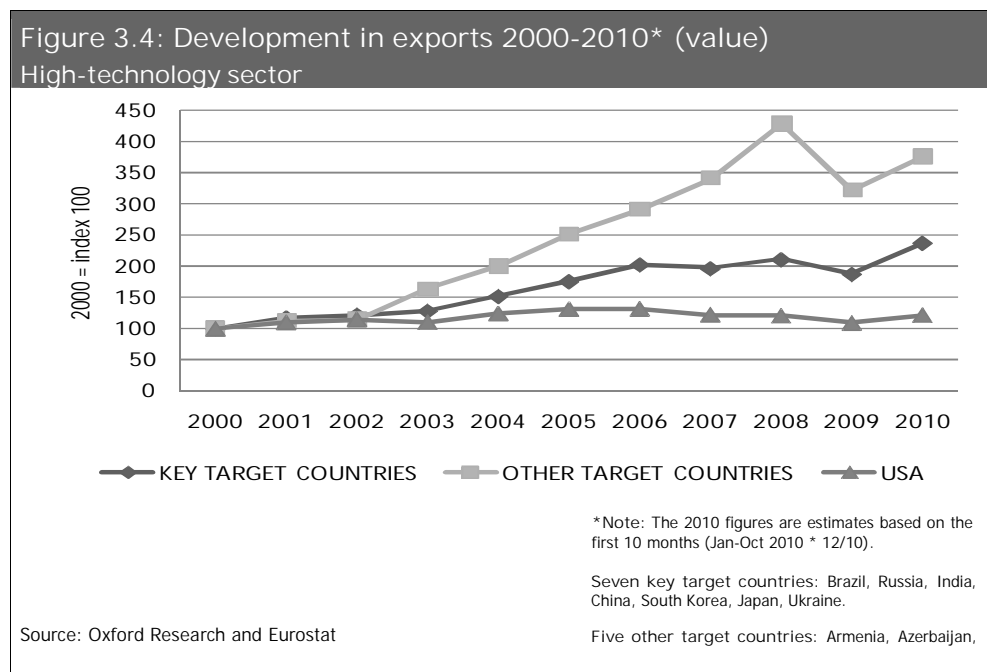
Figure 3.3: Development in exports 2000-2010\* (value)  
SME sectors and non-SME sectors for USA



The following three graphs show the development in the EU's export for each of the three technology sectors.

Figure 3.4 shows that the high-technology sector has experienced a decline from 2008 to 2009 for other target countries. Also the high-tech sector has seen a relatively modest

decrease for the US, which is also the case for key target countries. However from 2009 to 2010 the high-technology sector has experienced an increase for all the export areas.

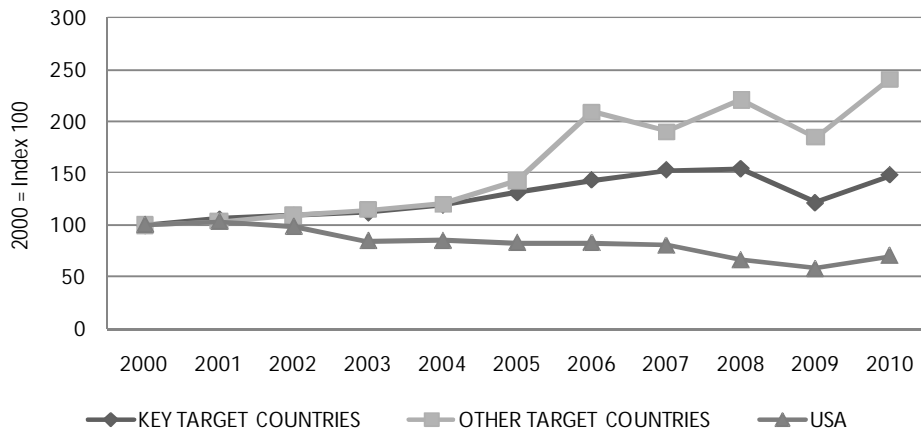


Looking at the medium-technology sector in figure 3.5 a development similar to that of the high-technology sector is discernable.

The low-technology sector shows a steep drop from 2008 to 2009, both for the key and other target countries, whereas the US has experienced a steady decline in exports since

2002. The period 2009 – 2010 shows a steady increase for the three different groups of countries.

Figure 3.6: Development in exports 2000-2010\* (value)  
Low technology sector



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

Seven key target countries: Brazil, Russia, India, China, South Korea, Japan, Ukraine.

Five other target countries: Armenia, Azerbaijan, Belarus, Georgia and Moldova

Source: Oxford Research and Eurostat

It can be suggested on the basis of these comparisons that EU should focus on the high-technology sector which, for the key target countries, has experienced the largest increase in exports prior to the financial crisis.

Overall, using the US as a benchmark it is worth noticing that the exports of the medium-technology sector has shown a very positive development in both the key and other target countries. Similarly, exports to the US in the low-technology sector have decreased contrasting sharply with the reverse development in the two other target groups.

## Chapter 4. Country by country analysis

This chapter analyses the development in exports to each of the 12 target countries from 2000 to 2010. The development of SME sectors is compared to non-SME sectors, and a specialisation index is introduced (see the annex for a detailed description). This makes it possible to identify to which extent low-, medium- or high technology SME sectors have driven the development, which can be observed in each of the target countries. The final part of the chapter compares the specialisations of exports to the different countries and identifies common patterns among countries.

Table 4.1 shows the size of exports to each of the target countries. Clearly, there are great differences between the 12 countries as markets for EU products. The seven key target countries are far larger than the five other target countries – this is also reflected in the attention given to the two types of countries in the following sections.

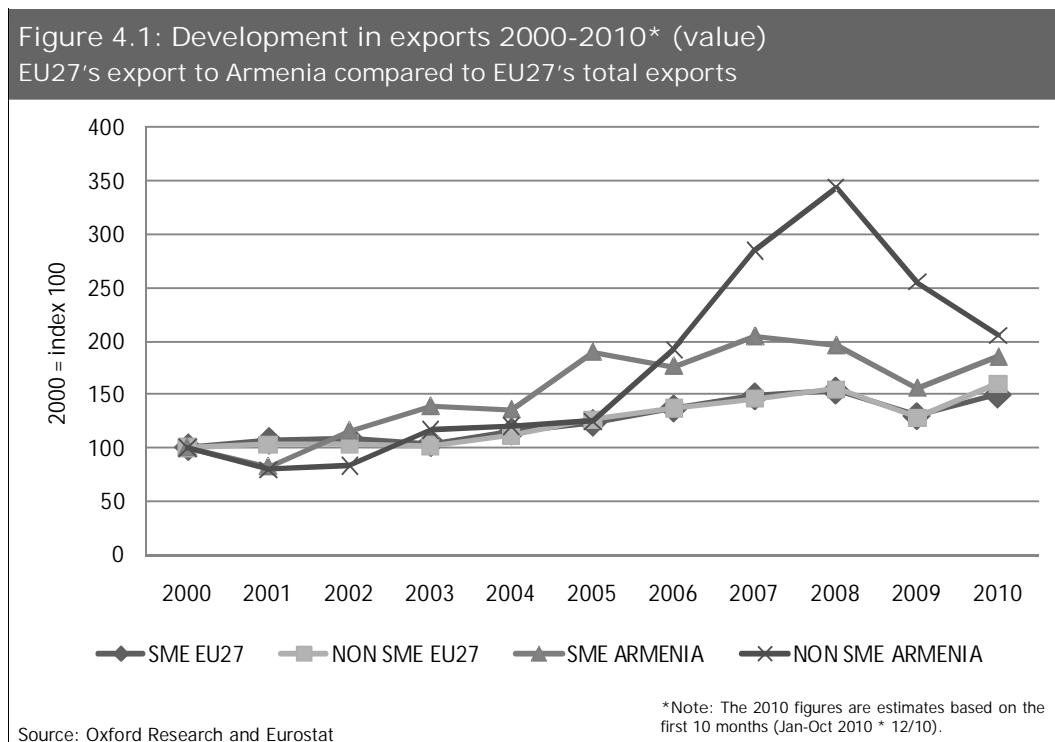
	Export (million €)	Percentage of export constituted by SME sectors
Armenia	525	64.6
Azerbaijan	2.296	61.6
Belarus	6.147	55.5
Brazil	313.048	42.6
China	1105.311	49.5
Georgia	1.091	38.5
India	33.569	59.4
Japan	43.291	46.1
Moldova	1.478	53.5
Russia	83.957	52.5
South Korea	27.473	51.2
Ukraine	16.901	52.7

Source: Eurostat \*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

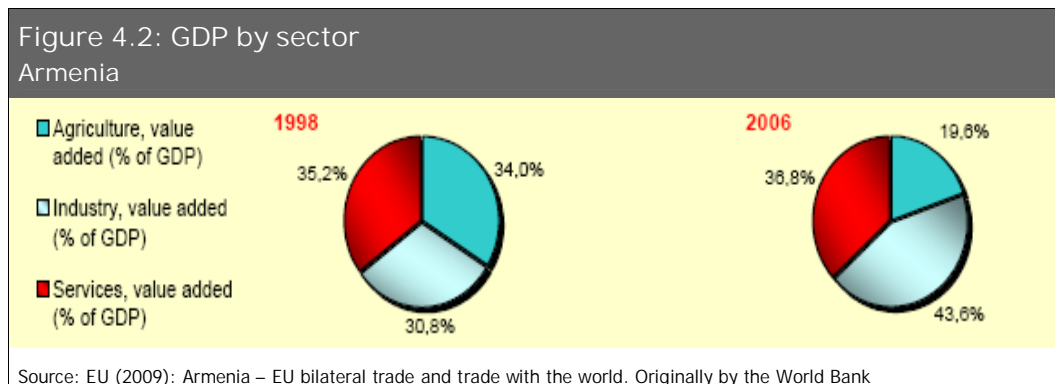
Initially, it is interesting to note that the percentages of export constituted by SME sectors vary a lot between the different countries. It is for instance noteworthy that the share is only 38.5 % in Georgia, while it is as high as 61.6 % and 64.4 % in the neighbouring countries of Azerbaijan and Armenia. Such differences are quite significant considering the similarities between the countries – especially between Georgia and Armenia, which are both energy-importing countries.

## 4.1 Armenia

Figure 4.1 shows that export to Armenia increased significantly during the last half of the decade after experiencing decreases right after the millennium. SME and non-SME sectors developed quite similarly during the first five years until a significant increase in the exports of non-SME sectors took place from 2006 to 2008. From 2008 to 2010 it has however declined significantly.



The growth in export to Armenia has been fuelled by a very quick transition of the Armenian economy (figure 4.2). The importance of agriculture for the economy has decreased very quickly, but the sector continues to make up almost 20 % of the country's total GDP. It should be noticed that the share of the service sector has remained stable contrary to the industrial sector, which has increased by almost 13 percentage points over the eight years.





The decrease in exports from 2008 to 2010 has been quite large for both SME and non-SME sectors, and the financial crisis has had a major impact on the Armenian economy. Mining is a key export sector in Armenia and the falling commodity prices have had severe consequences for employment.<sup>3</sup> Additionally, the economic problems in Russia have led to decreasing amounts of both FDI and remittances, which are of great economic importance for the country.<sup>4</sup> As a result of this, the IMF issued an emergency loan of \$540 million in order to mitigate the impacts of the crisis. In the long term, growth is expected to reach 4.5 % in 2014.<sup>5</sup>

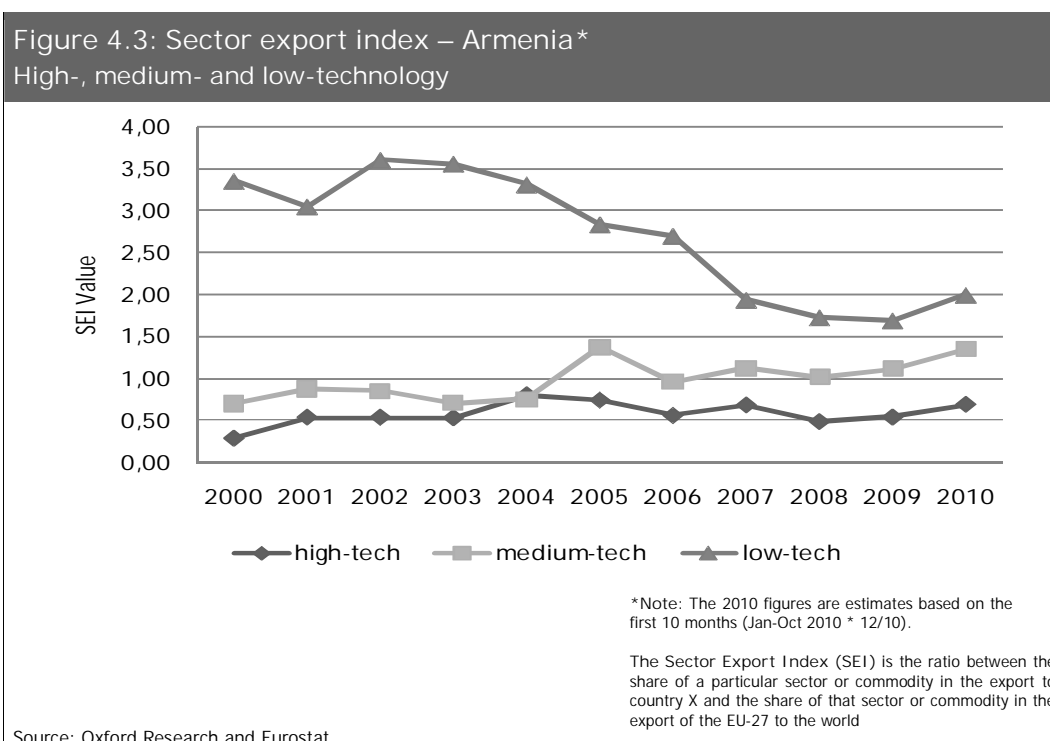


Figure 4.3 shows that the specialization of low-technology exports to Armenia has decreased dramatically during the period 2002 – 2009, showing a small increase from 2009 to 2010. Specialization of both medium- and high technology exports has increased steadily. By year 2010 the specialization of low tech exports is still higher than the specialization of medium- and high tech exports.

<sup>3</sup> IMF (2009): World Economic Outlook October 2009

<sup>4</sup> Banaian, K. (2009): Macroeconomic Impact of the Financial Crisis on Armenia. Conference paper.

<sup>5</sup> IMF (2009): World Economic Outlook October 2009

Overall, the importance of Armenia as an export market for the EU is limited. Presently, with a value of EU export of just above 300 million €, Armenia is the smallest export market of the 12 key target countries included in this study. Nevertheless, the position of

Table 4.2: Share of import Armenia

Rk	Partners	Mio euro	%
	<b>World</b>	<b>2.992,3</b>	<b>100,0%</b>
<b>1</b>	<b>EU27</b>	<b>923,9</b>	<b>30,9%</b>
<b>2</b>	<b>Russia</b>	<b>578,2</b>	<b>19,3%</b>
<b>3</b>	<b>China</b>	<b>259,8</b>	<b>8,7%</b>
<b>4</b>	<b>Ukraine</b>	<b>211,3</b>	<b>7,1%</b>
<b>5</b>	<b>Turkey</b>	<b>182,0</b>	<b>6,1%</b>
<b>6</b>	<b>United States</b>	<b>147,6</b>	<b>4,9%</b>
<b>7</b>	<b>Iran</b>	<b>137,0</b>	<b>4,6%</b>
<b>8</b>	<b>Japan</b>	<b>114,9</b>	<b>3,8%</b>
<b>9</b>	<b>South Korea</b>	<b>55,4</b>	<b>1,9%</b>
<b>10</b>	<b>Brazil</b>	<b>39,3</b>	<b>1,3%</b>

Source: EU (2009): Armenia – EU bilateral trade and trade with the world. Originally by the IMF

European firms in the country is very strong, as it can be seen from figure 4.5: the share of imports coming from EU countries is almost 31 %. Export promotion initiatives targeting the Armenian market should take the current successful sectors – primarily the furniture industry – as an outset, and analyse the lessons, which can be learned from the experiences of these industries.

Still, it must be stressed the prospects for increasing exports to Armenia in the next few years are not too optimistic, due to the extensive negative effect of the economic crisis on the country.

## 4.2 Azerbaijan

Figure 4.4 shows that export to Azerbaijan in general have significantly increased since 2000. For the SME dominated sectors 2005 marks the first downturn in the decade, and thereafter the development has been unstable with a substantial increase in exports from 2005 to 2006, 2007 to 2008, and 2009 to 2010 whereas the periods 2006-2007 and 2008-2009 have shown sharp declines in the exports. For the non-SME sectors these periods also show decreases in the exports.

Figure 4.4: Development in exports 2000-2010\* (value)  
EU27's export to Azerbaijan compared to EU27's total exports

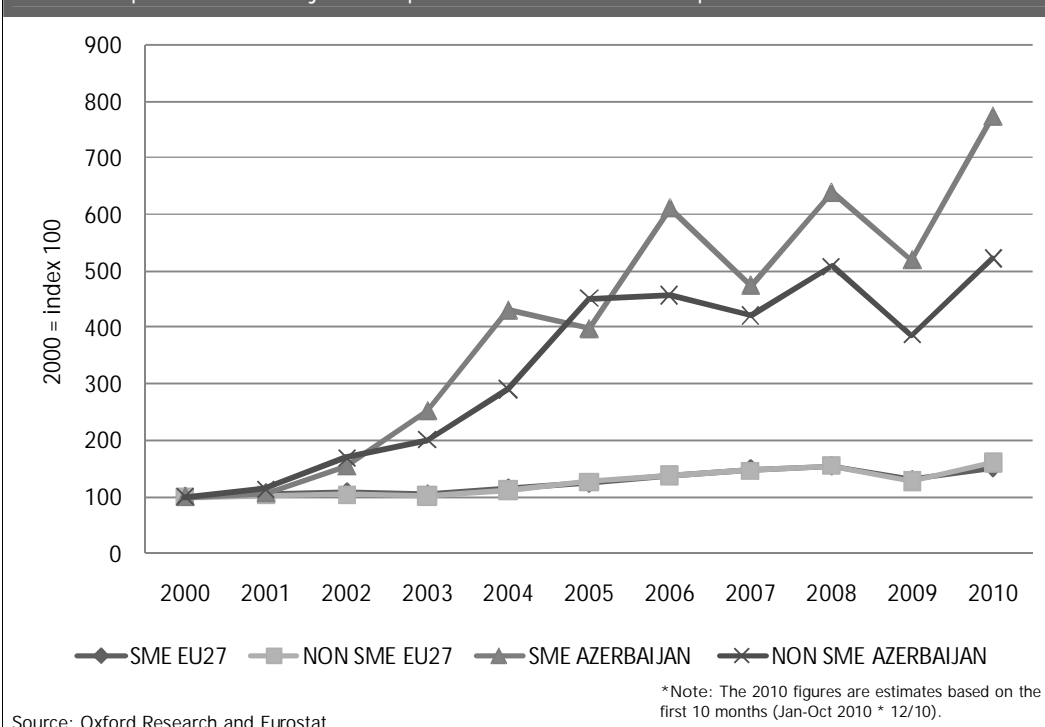
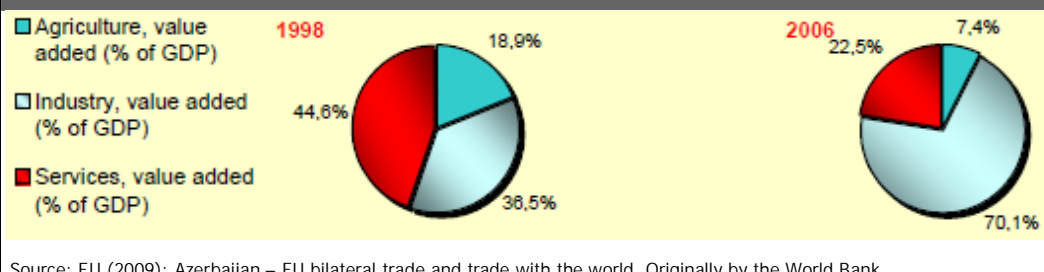


Figure 4.5 clearly illustrates that the Azerbaijan economy has been undergoing a massive transition since 1998, as the composition of the sectors that dominate the GDP evidently has changed. The share of the industrial sector has almost doubled, while the share of the agricultural sector has decreased significantly with about 12 percentage points and as a result only composed 7.4 % of the GDP in 2006.

Figure 4.5: GDP by sector  
Azerbaijan



Source: EU (2009): Azerbaijan – EU bilateral trade and trade with the world. Originally by the World Bank

The Azerbaijan economy has completed its post-Soviet transition into a major oil based economy, and the most important Azerbaijani export sector is the energy industry. It is anticipated that the Azerbaijan economy will recover relatively fast from the economic crisis, as the energy prices will recover, and in 2014 it is anticipated that the economic growth in Azerbaijan will decline heavily, as the economic growth will only amount to 0.9 %.<sup>6</sup>

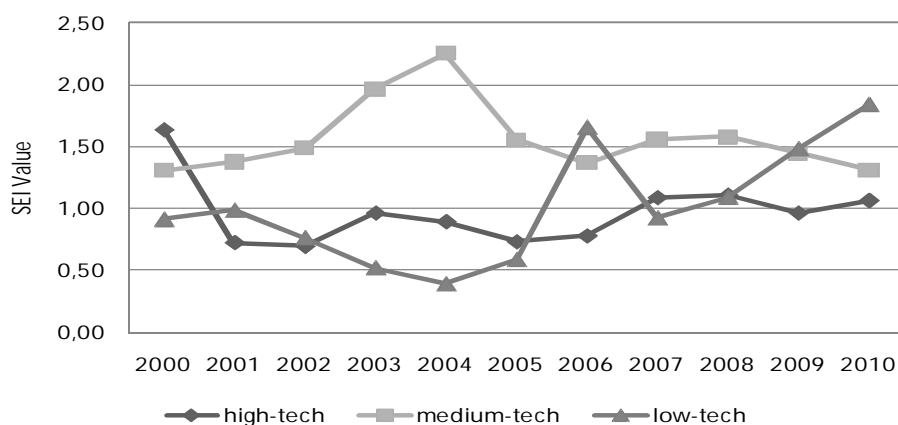
The longer-term prospects of the Azerbaijan economy are very dependent on world oil prices, and the location of new gas and oil pipes in the region. Furthermore, Azerbaijan is also dependent on its domestic ability to reform the economy and take advantage of its energy wealth to promote more sustainable growth in non-energy sectors of the economy. Besides oil and natural gas production, non-energy sectors like construction, banking and real estate showed double-digit growth in 2008.<sup>7</sup>

If we take a closer look at the export within the three technology sector a very unstable scenario presents itself, however, a few interpretations can be drawn. Regarding the low-technology sector, there seems to be a potential for specialization, as the SEI value is above 1.5 in 2010. Furthermore, the high-technology sector is hovering around 1 in 2010, despite a SEI value above 1.5 in 2000, suggesting potential opportunities in this sector as well.

<sup>6</sup> IMF (2009): World Economic Outlook, October 2009

<sup>7</sup> CIA (2009): The World Factbook

Figure 4.6: Sector export index – Azerbaijan\*  
High-, medium- and low-technology



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

The Sector Export Index (SEI) is the ratio between the share of a particular sector or commodity in the export to country X and the share of that sector or commodity in the export of the EU-27 to the world

Source: Oxford Research and Eurostat

Table 4.3: Share of import  
Azerbaijan

Rk	Partners	Mio euro	%
	<b>World</b>	<b>6.843,2</b>	<b>100,0%</b>
1	EU27	2.268,6	33,2%
2	Russia	1.292,4	18,9%
3	Turkey	1.246,2	18,2%
4	China	431,3	6,3%
5	Ukraine	361,4	5,3%
6	Kazakhstan	197,9	2,9%
7	United States	178,7	2,6%
8	Israel	96,5	1,4%
9	Iran	93,7	1,4%
10	Belarus	78,8	1,2%

Source: EU (2009): Azerbaijan – EU bilateral trade and trade with the world. Originally by the IMF

The EU makes up 33.2 % of the overall import to Azerbaijan and is by far the most important exporter to the country. This accentuates the dominant role that the EU plays in Azerbaijan.

### 4.3 Belarus

Figure 4.7 shows that EU exports to Belarus generally have been significantly increasing from 2000 until 2008, where the EU exports for the SME sectors have decreased due to the economic crisis. From 2009 to 2010 especially the SME sectors, but also the non-SME sectors have increased.

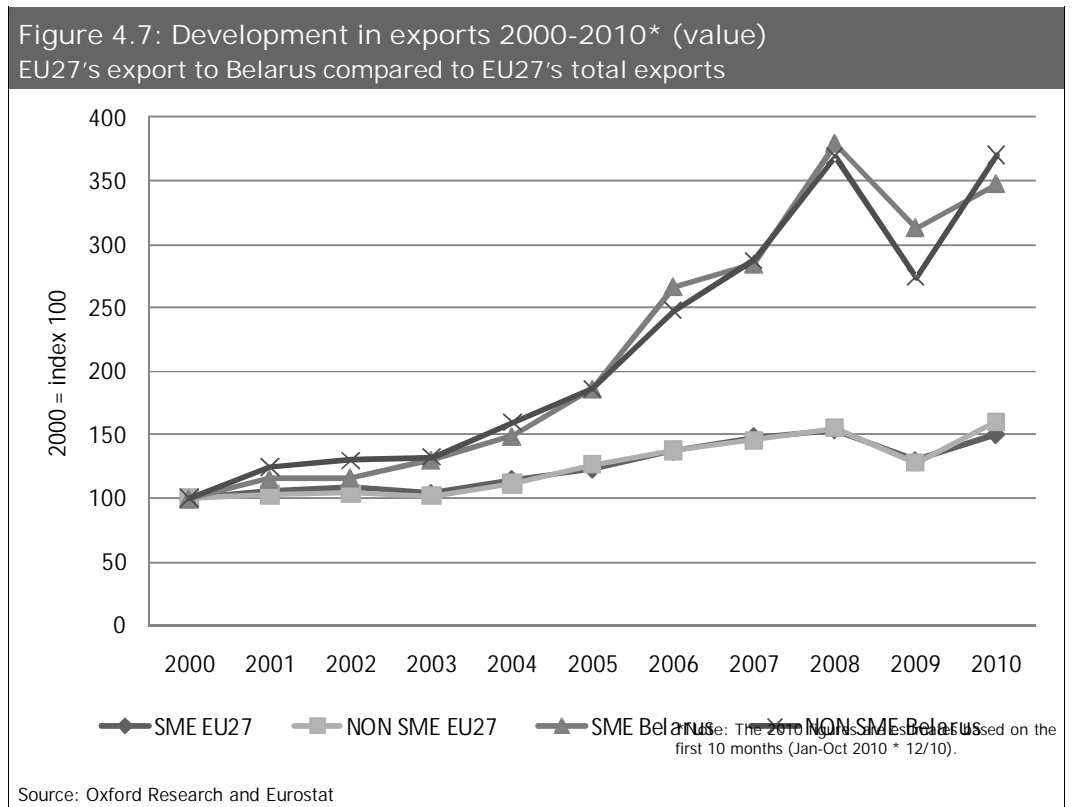
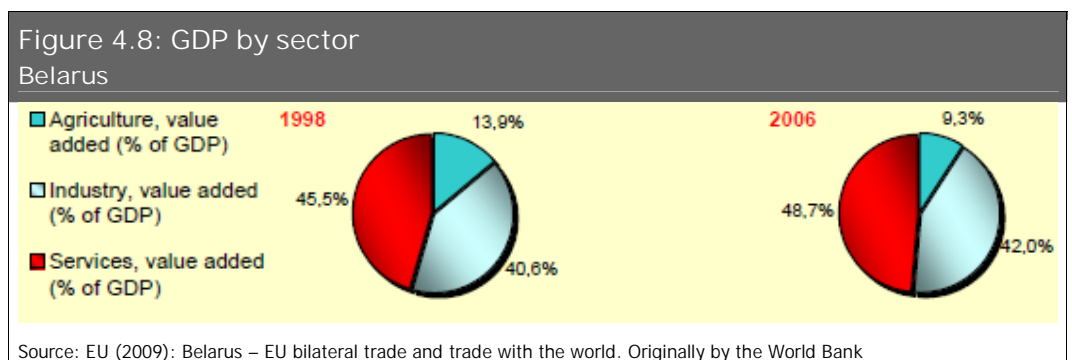


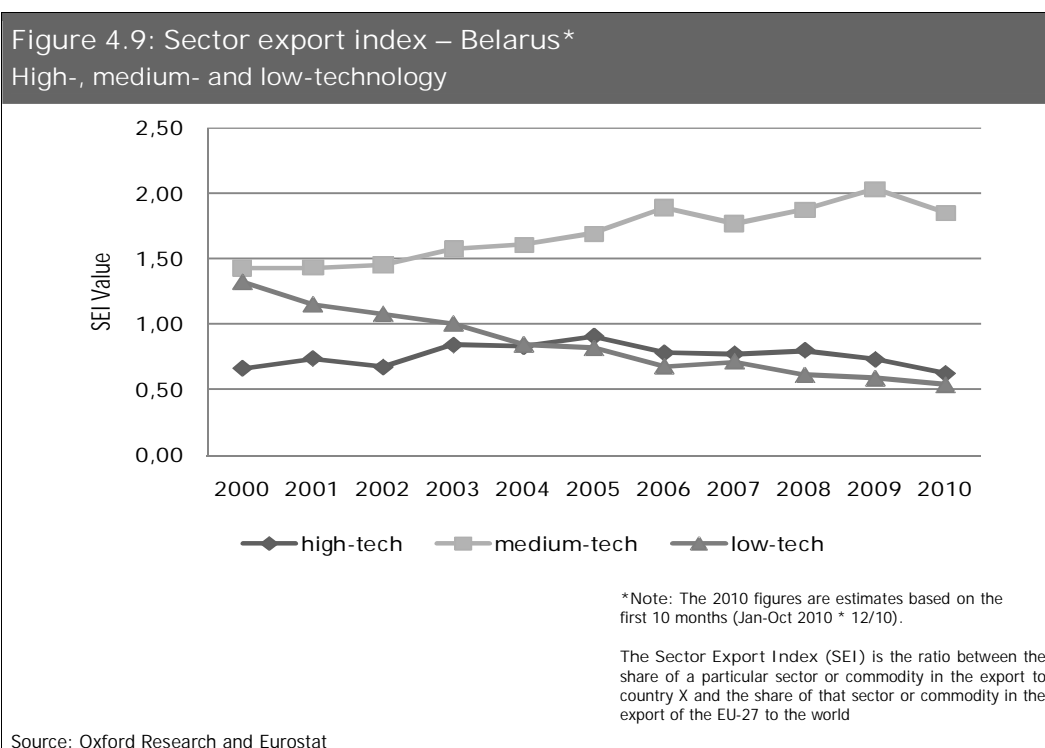
Figure 4.8 illustrates that the Belarusian economy has been undergoing a transition since 1998, as the composition of the sectors that dominate the GDP evidently has changed. The share of the services and industrial sectors has increased, while the share of the agricultural sector has diminished.



Belarus has experienced high growth rates in recent years, e.g. 8.6 % in 2007 and 10 % in 2008. In 2014 it is expected that the Belarusian economy will recover and have a growth level at 6.9 %.<sup>8</sup>

Despite the recent strong economic growth and prudent fiscal stance, the Belarusian economy has a number of features limiting its flexibility and competitiveness and making it particularly vulnerable to external shocks, including an inflexible exchange rate regime, high reliance on energy subsidies from Russia, high concentration of the economy (in terms of production, export and tax base), a large size of government, and the limited role of the private sector.<sup>9</sup> An example of this economical concentration is that Belarus' export to the EU is dominated by mineral fuel, which makes up more than 65.7 % of the total export. The second most important product category is chemicals with a share of 8.2 %.<sup>10</sup>

Looking at the SEI values in figure 4.9 both the high- and low-technology sectors generally show values below 1 indicating that exports has performed less than average taking both sectors and country in to consideration. The SEI values for the medium-technology sectors have generally had a steady development with ups and downs.



<sup>8</sup> IMF (2009): World Economic Outlook, October 2009

<sup>9</sup> The World Bank (2009): Country Brief – Belarus

<sup>10</sup> DG Trade – ec.europa.eu/trade

Table 4.4: Share of import  
Belarus

Rk	Partners	Mio euro	%
	<b>World</b>	<b>26.763,7</b>	<b>100,0%</b>
1	Russia	16.048,3	60,0%
2	EU27	5.811,8	21,7%
3	Ukraine	1.438,1	5,4%
4	China	961,9	3,6%
5	United States	329,5	1,2%
6	Japan	214,4	0,8%
7	Switzerland	181,1	0,7%
8	Turkey	151,7	0,6%
9	South Korea	129,3	0,5%
10	Kasakhstan	116,8	0,4%

Source: EU (2009): Belarus – EU bilateral trade and trade with the world. Originally by the IMF

Russia is by far the largest exporter to Belarus with a share of Belarusian import constituting 60.0 % (table 4.4). In comparison EU's share is just 21.7 %. Trade between the EU and Belarus has been increasing in recent years, but the EU has suspended moves towards a closer economic partnership with Belarus until its government is able to show a greater commitment to democracy and political and civil rights.<sup>11</sup>

These unresolved issues separate Belarus from the remaining 11 target countries: development in exports to these countries is primarily depending on the competitiveness of European firms, but political questions continue to be a main obstacle for promoting EU export to Belarus.

<sup>11</sup> DG Trade – ec.europa.eu/trade

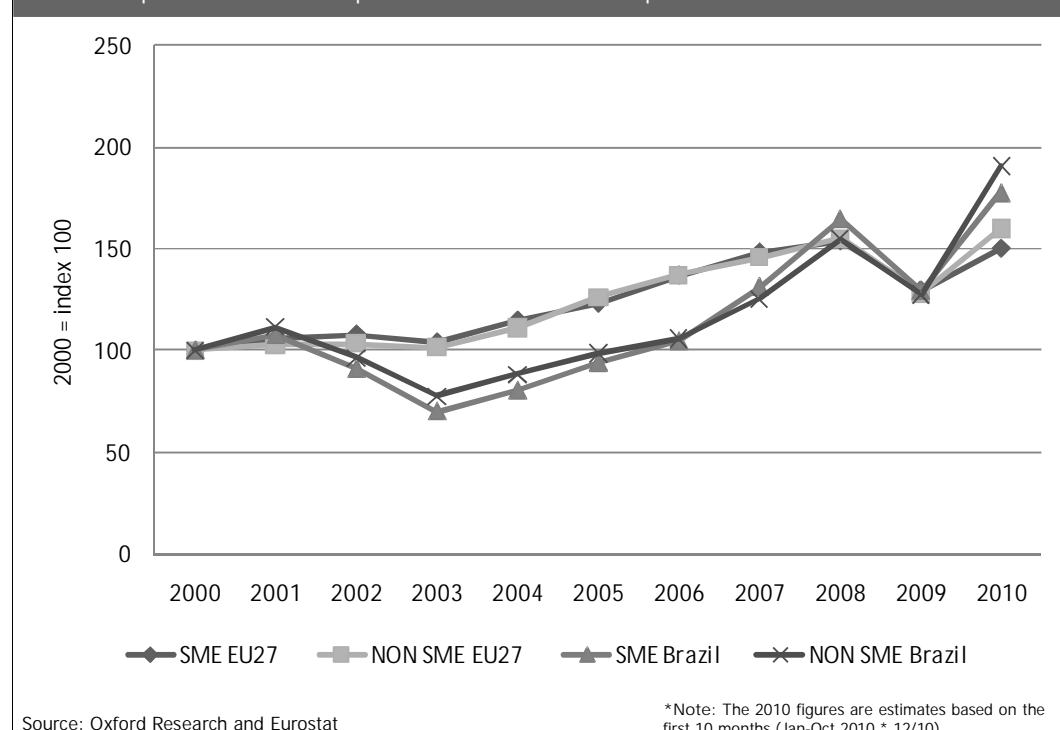


## 4.4 Brazil

EU's exports to Brazil have increased steadily since 2003 both for the SME sectors and for the non-SME sectors, and the two categories evolve quite similarly. The decrease from 2001 to 2003 results from the economic crisis, which hit both Brazil and Argentine, in 1999-2002. The large Brazilian national debt led to considerable yearly deficit on the public finances,<sup>12</sup> and a 20.1 billion € loan was issued by the IMF in 2002.<sup>13</sup>

One main explanation for the general increase in the EU exports to Brazil is that Brazil since 1990 has undergone trade reforms, which has included major reductions in trade barriers encompassing goods and services, in terms of both tariff and non-tariff barriers. The effects of these reforms are evident, as total trade as a percentage of GDP has increased 15 percentage points since 1990 to a level of 30 % in 2005.<sup>14</sup> EU exports to Brazil have seen a decrease in 2009 due to the economic crisis, but as figure 4.10 also shows, exports to Brazil has recovered relatively fast in 2010.

Figure 4.10: Development in exports 2000-2010\* (value)  
EU27's export to Brazil compared to EU27's total exports



As figure 4.11 illustrates there has been changes in the relative size of the sectors from 1988 to 2006. In the period 1988 to 1998 there has been major changes in the composition of the sectors. The share of the agricultural sector has seen a large decrease amounting to 4.6 percentage points. The share of the industrial sector has been deca-

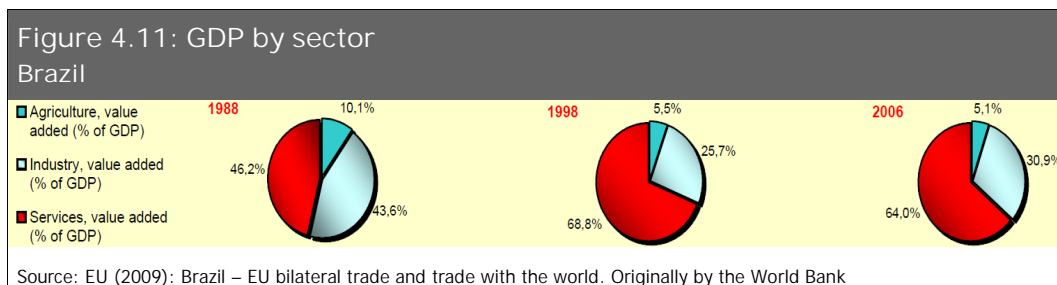
<sup>12</sup> Fraga, A. (2000): Monetary Policy During the Transition to a Floating Exchange Rate: Brazil's Recent Experience. Finance & Development, Vol. 37.

<sup>13</sup> Wheatley, J. (200): Brazil: When an IMF Bailout Is Not Enough. Business Week, September 2<sup>nd</sup> 2002.

<sup>14</sup> OECD (2008): Brazil - Globalization and Emerging Economies

ing as well from 43.6 % in 1988 to 25.7 % in 1998. By contrast the services sector has been increasing massively, from a share of 46.2 % in 1988 to a share of 68.8 % in 1998.

From 1998 to 2006 the changes in the composition of the sectors do not indicate a restructuring of the Brazilian economy. The shares of the service and agricultural sectors have been reduced a little, and the industrial sector has extended its importance for the GDP, but these are not major changes. It is however interesting that the changes in the composition of the sectors have shown opposite tendencies, as the service sector has decreased, whereas the industrial sector has increased. Agriculture still composes a relative small share of the added value in the Brazilian economy, but it is however one the most important export sectors for Brazil to the EU, as agricultural products contribute to 41 % of the overall Brazilian exports to the EU. Fuels and mining productions is also a significant export sector, as around 28 % of the total Brazilian export derives from this sector. Machinery and transport equipment is the third largest exporting area for Brazil with an overall share of about 11 %.



As figure 4.11 illustrates, the service sector's share of GDP has diminished since 1998. In a trade policy review of Brazil by the EU Commission, it has been noted that the Brazilian services sector in some respects is lagging behind. Thus it has been recommended that Brazil should take all necessary steps to further open up its core services sector, e.g. removing foreign ownership restrictions in the transport sector.<sup>15</sup>

As the largest economy in South America, Brazil is an essential trade partner for the EU, and thus offers many opportunities for SMEs. In comparison to the other Latin American countries, Brazil has been mildly hit by the crisis, and was the first country in the region to emerge from recession. The mildness of the recession reflects a high degree of diversification of the economy and trading partners. The exports' share of GDP in Brazil has increased significantly over the last 20 years, but compared to other large economies Brazilian trade has a relatively low share of GDP, and thus the impact of the global demand downturn has been more muted for Brazil.<sup>16</sup>

In a trade policy review of Brazil by the European Commission, it has been noted that Brazil has responded to the crisis in a responsible fashion and has refrained to resort to protectionist measures. Furthermore Brazil has defended this line in Mercosur due to its commitment to the G-20. A problem that has been highlighted by the European Commission regarding international trade is the issue of IPR, which has been handled domestically by the Brazilian government, but at the international level it seems that Brazil has

<sup>15</sup> EC Statement (2009), Trade Policy Review of Brazil

<sup>16</sup> The Economist (2009): Late in, first out. September 14<sup>th</sup> 2009

been reluctant to engage in discussions aimed at solving the problems constituted by piracy and counterfeiting of IPR.<sup>17</sup>

Another obstacle to the development of the Brazilian economy is that the country lacks sufficient technological innovators to make firms more competitive. As the OECD report concludes, it is apparent that technologically successful industries have been successful internationally, and by contrast industries that have been less successful technologically have struggled to manage international competition, even when trade policy has encouraged their positions.<sup>18</sup>

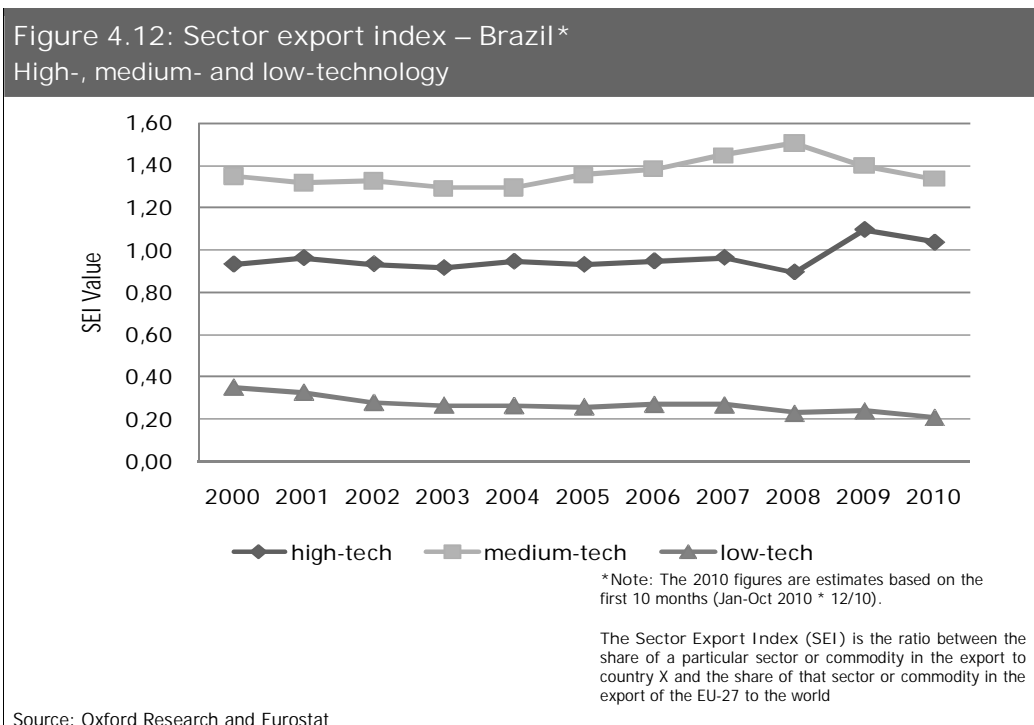


Figure 4.12 shows an interesting increase in the SEI value for the high-technology sector from 2008 to 2009, followed by a small drop from 2009 to 2010.

The technologically dominant sectors appear to be the most important, and this goes well in line with one of Brazil's structural problems concerning their lack of technologically innovators. This is certainly an export area that has a potential for the European SMEs.

<sup>17</sup> EC Statement (2009), Trade Policy Review of Brazil

<sup>18</sup> OECD (2008): Brazil – Globalization and Emerging Economies

Table 4.5: Share of import  
Brazil

1	<b>EU27</b>	<b>32.845,2</b>	<b>21,4%</b>
2	United States	23.275,0	15,2%
3	China	18.087,3	11,8%
4	Argentina	12.378,2	8,1%
5	Japan	6.228,1	4,1%
6	Nigeria	6.033,1	3,9%
7	South Korea	4.944,2	3,2%
8	Chile	3.776,5	2,5%
9	India	3.111,9	2,0%
10	Russia	2.972,7	1,9%

Source: EU (2009): Brazil – EU bilateral trade and trade with the world. Originally by the IMF

The EU is the largest exporter to Brazil with a share of import amounting to 21.4 % of the total Brazilian import. This shows that the EU has a strong position in the Brazilian market. The share of exports by SME sectors is however the second lowest of all 12 target countries (42.6 %), indicating a need for giving greater attention to these sectors.

One of the most prominent issues regarding trade relations to Brazil is IPR, which Brazil has not yet addressed internationally. However, the lack of technological innovators in Brazil results in good export possibilities for the technologically dominated SME sectors.

## 4.5 China

The EU's export to China has developed strongly during the first decade of the century. It is interesting to notice that the exports of SME sectors have increased faster than the exports of non-SME sectors, compared to the level in 2000, as it appears from figure 4.13.

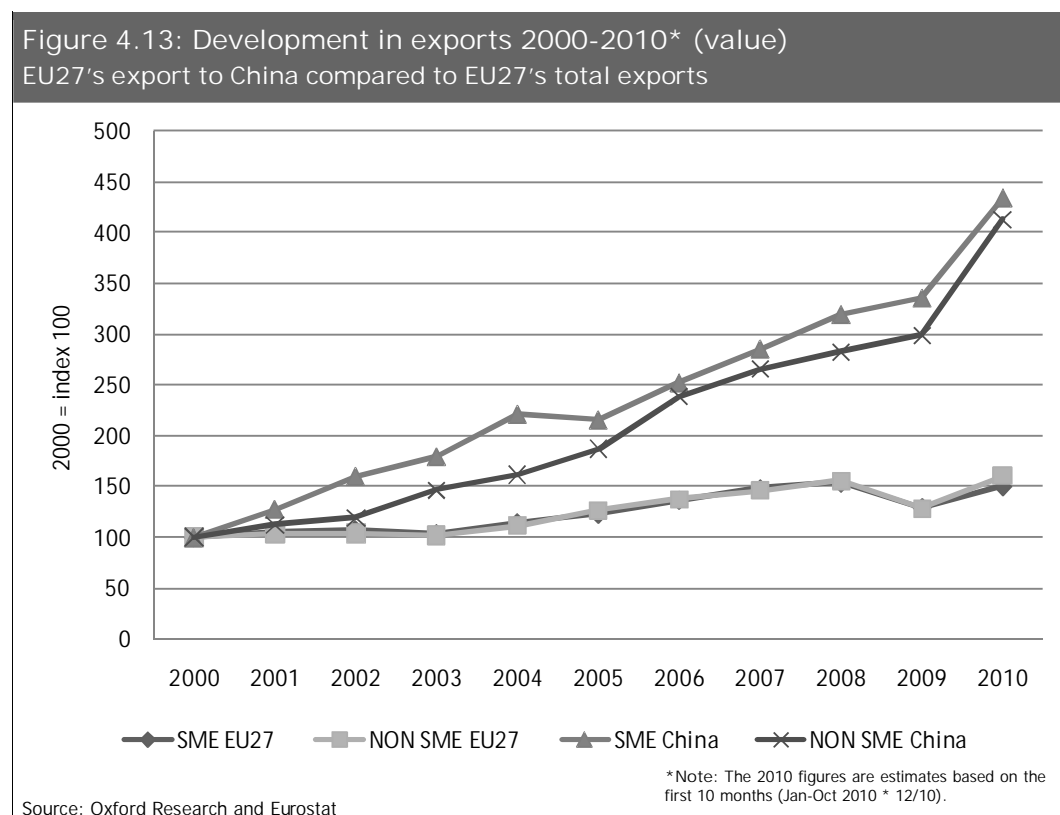
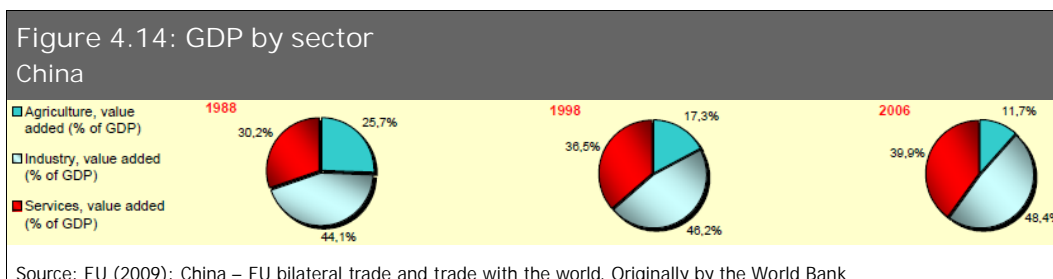


Figure 4.14 shows the overall composition of the Chinese economy. The share constituted by agriculture has been more than halved from 1988 to 2006, but the sector continues to make up almost 12 % of the country's total GDP, mainly due to the "hukou" residence permit system that was introduced by Mao Zedong – and still functions albeit in a modernised form – as an instrument for migration control.<sup>19</sup>

This structural change has however great consequences for the absolute change in Chinese consumption due to the huge size of the country's population and economy. The internal migration from rural to urban areas is fuelling the increasing consumption, which makes China an attractive market for exporting European firms – and possibly the most important export market in the future, despite problematic issues related to intellectual property rights (IPR). A recent analysis of the Chinese IPR legislation concludes that the laws are largely in line with international standards, but that they are weakly enforced due to an insufficient regulatory infrastructure and wilfulness among local regulators.<sup>20</sup>

<sup>19</sup> The Vienna Institute for International Economic Studies (2009): EU and BRICs: Challenges and opportunities for European competitiveness and cooperation

<sup>20</sup> Greene, M. & C. Tsai (2008): Enhancing Market Openness Through Regulatory Reform in the People's Republic of China. OECD.



The impact of the economic crisis has been far less devastating in China than in most other countries. The downturn in China was not the result of problems in the Chinese financial sector, but rather as a result of declining exports due to decreasing demand in most Western economies, which eventually led to increasing unemployment and decreasing domestic consumption.<sup>21</sup> The IMF expects a growth of 9.5 % in 2014.<sup>22</sup>

An important reason for the low impact of the crisis on the Chinese economy is the substantial monetary and fiscal stimulus, which has been introduced by the government (400 billion € in 2009-2010 equal to 7 % of GDP). The stimulus, which in particular are targeting new infrastructural projects and retooling of factories, has led to a sustained demand for foreign products while exports have developed less strongly.<sup>23</sup> It is expected by the IMF that the Chinese growth will fuel the recovery of other economies in South and East Asia.

Even though the injection of government funds in the economy has led to a decreasing account surplus, then it does by no means imply that the long term sustainability of the public finances is troubled.

The actions taken by the Chinese government have in this way been crucial for maintaining EU export to China at the current level. A less crucial – yet still important – factor has been the continuing development over the recent years of EU-China trade relations. This includes the High Level Economic and Trade Dialogue, which was initiated in April 2008 in Beijing with the second meeting in May 2009 in Brussels. The creation of a platform for negotiations of issues of strategic importance related to trade and economic relations such as IPR, investments and market access, is likely to promote the bilateral trade further. A second ongoing initiative is the negotiations related to the Partnership and Cooperation Agreement, which were initiated in 2007. These negotiations are also expected to improve bilateral trade and investments.<sup>24</sup>

Turning to the composition of EU export to China, it is clearly seen that the specialization potential lies with the low-technology sector. Both the medium- and high-technology sectors are above 1, with the medium-technology sector above 1.5 throughout the period and the high-technology sector showing a steady development hovering around an SEI-value above 1 throughout the period.

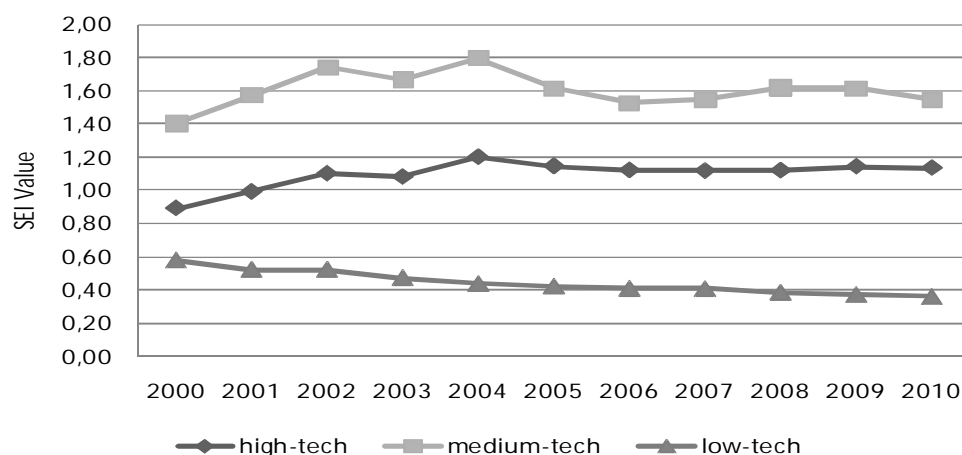
<sup>21</sup> The Vienna Institute for International Economic Studies (2009): EU and BRICs: Challenges and opportunities for European competitiveness and cooperation

<sup>22</sup> IMF (2009): World Economic Outlook October 2009

<sup>23</sup> OECD (2009): OECD Economic Outlook no. 86, November 2009

<sup>24</sup> DG Trade – ec.europa.eu/trade

Figure 4.15: Sector export index – China\*  
High-, medium- and low-technology



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

The Sector Export Index (SEI) is the ratio between the share of a particular sector or commodity in the export to country X and the share of that sector or commodity in the export of the EU-27 to the world

Source: Oxford Research and Eurostat

Table 4.6: Share of import  
China

Rk	Partners	Mio euro	%
	<b>World</b>	<b>746.760,2</b>	<b>100,0%</b>
1	Japan	100.914,5	13,5%
2	EU27	88.442,1	11,8%
3	South Korea	82.693,8	11,1%
4	United States	54.883,5	7,3%
5	Hong Kong	40.443,2	5,4%
6	Australia	23.567,8	3,2%
7	Malaysia	23.554,3	3,2%
8	Saudi Arabia	21.249,3	2,8%
9	Brazil	20.059,6	2,7%
10	Russia	17.258,4	2,3%

Source: EU (2009): China – EU bilateral trade and trade with the world. Originally by the IMF

Summing up, the importance of China as an export market has increased considerably over the last decade – and it is expected to continue so in the coming years. EU's share of all Chinese imports is however still relatively low (11.8 %) compared to e.g. the share in India (17.1 %). This indicates that there are still market shares to be won in China by European firms.

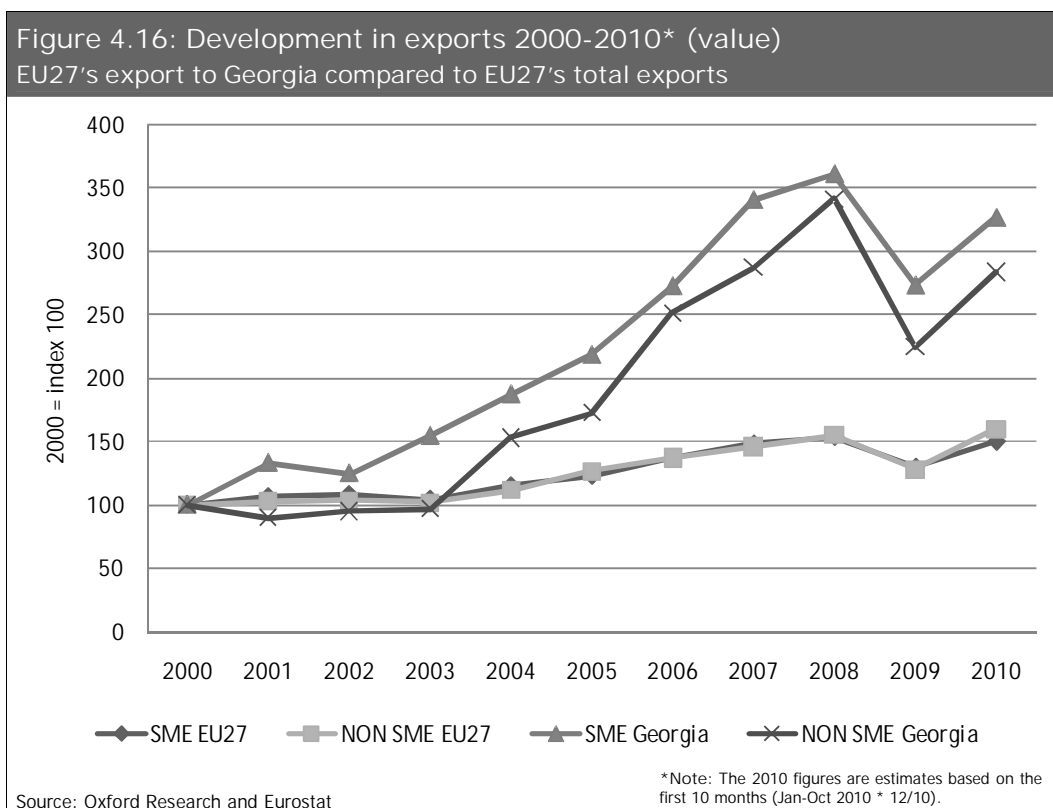
An issue of great interest to SME firms is that the composition of Chinese imports is likely to change in the coming years. The demand for raw materials has lead China to invest in large amounts of supplies in Australia, Russia, Africa and Latin America. Still, the government is concerned with overheating the prices of raw materials

and has started to emphasise restructuring programs focusing on raising the efficiency levels for e.g. the steel industry.<sup>25</sup> These investments might in the short run lead to increasing imports from the European machinery end electrical machinery industries, but they may also stimulate future competition from Chinese firms within e.g. the fabricated metal industry. Also there has recently been a shift in the political agenda of the Chinese government towards more emphasis on local consumption, increasing decreasing the level of imports to China.

<sup>25</sup> OECD (2009): Globalisation and Emerging Economies – Brazil, Russia, India, Indonesia, China and South Africa

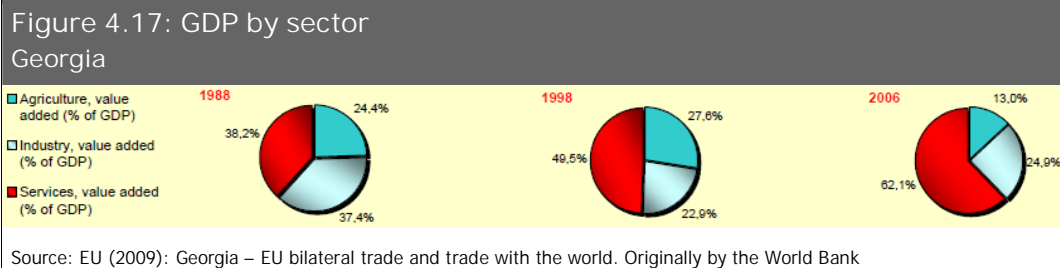
## 4.6 Georgia

Export from the EU to Georgia has increased significantly after the millennium, as it is clearly seen from figure 4.16. However, the financial crisis led to a sharp decrease in EU export to the country – export fell by 34 % from 2008 to 2009, and has since then increased significantly from 2009 to 2010. The SME sector experienced higher increases than the non-SME sector during the first half of the decade, but the two have developed similarly from 2006 to 2010 – even though the recent downturn has affected the non-SME sectors a bit more than the SME sectors.



The transition of the Georgian economy from being dominated by agriculture to becoming predominantly based on services (figure 4.17) has developed quickly. While agriculture made up more than 27 % of the country's GDP in 1998, it now only equals approximately 13 %. The share constituted by the service sector has been growing rapidly during the same period from 49.5 % to 62.1 %, while the share of the industry has just increased by 2 percentage points.





The financial crisis has had a great negative impact on the Georgian economy, as it could be expected, taking the large decrease of EU export into consideration. Contrary to e.g. Azerbaijan, Georgia is an importer of energy, implying that the conditions for getting through the crisis quite easily are much more difficult. The Georgian situation is thus more comparable to Armenia, even though the economy of Georgia is much less dependent on mining and has thus also been less affected by decreasing prices on raw materials. A point of similarity is however the macroeconomic consequences of the decreasing remittances from workers abroad, which together with a reduced international demand for Georgian goods and services has led to a fallen domestic consumption. The government has introduced quite wide-ranging policy responses to the crisis – but the fiscal space of the government limits its possibilities for introducing further measures.<sup>26</sup>

The long-term prospects are positive for Georgia with an expected growth of 5.0 % in 2014.<sup>27</sup> In this perspective, it is of key importance that a resumption of credit growth and FDI will take place so that the fiscal stimulus can be replaced by private demand.<sup>28</sup>

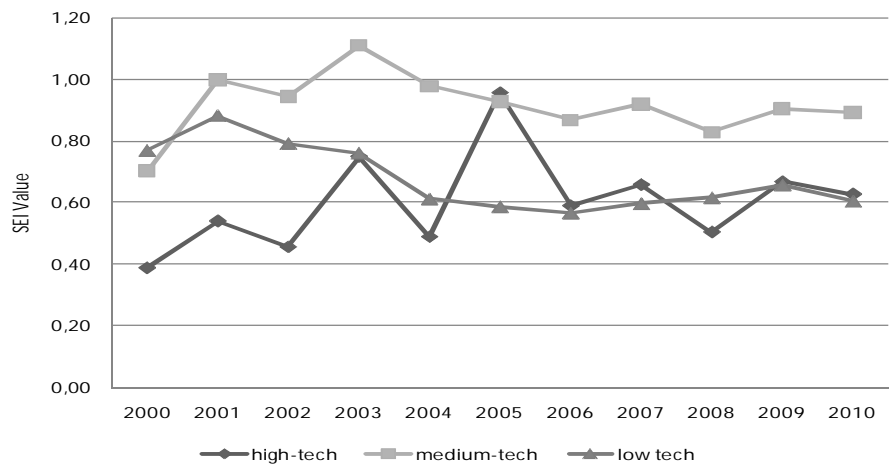
Figure 4.18 shows an unstable development, common to the other target group countries in this analysis. The specialization potential is, however, easy to see as all three sectors lie below a SEI value of 1.

<sup>26</sup> IMF (2009): Regional Economic Outlook – Middle East and Central Asia October 2009

<sup>27</sup> IMF (2009): World Economic Outlook October 2009

<sup>28</sup> IMF (2009): Press Briefing by Masood Ahmed, Director of the IMF Middle East and Central Asia Department, October 3rd 2009.

Figure 4.18: Sector export index – Georgia\*  
High-, medium- and low-technology



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

The Sector Export Index (SEI) is the ratio between the share of a particular sector or commodity in the export to country X and the share of that sector or commodity in the export of the EU-27 to the world

Source: Oxford Research and Eurostat

Table 4.7: Share of import Georgia

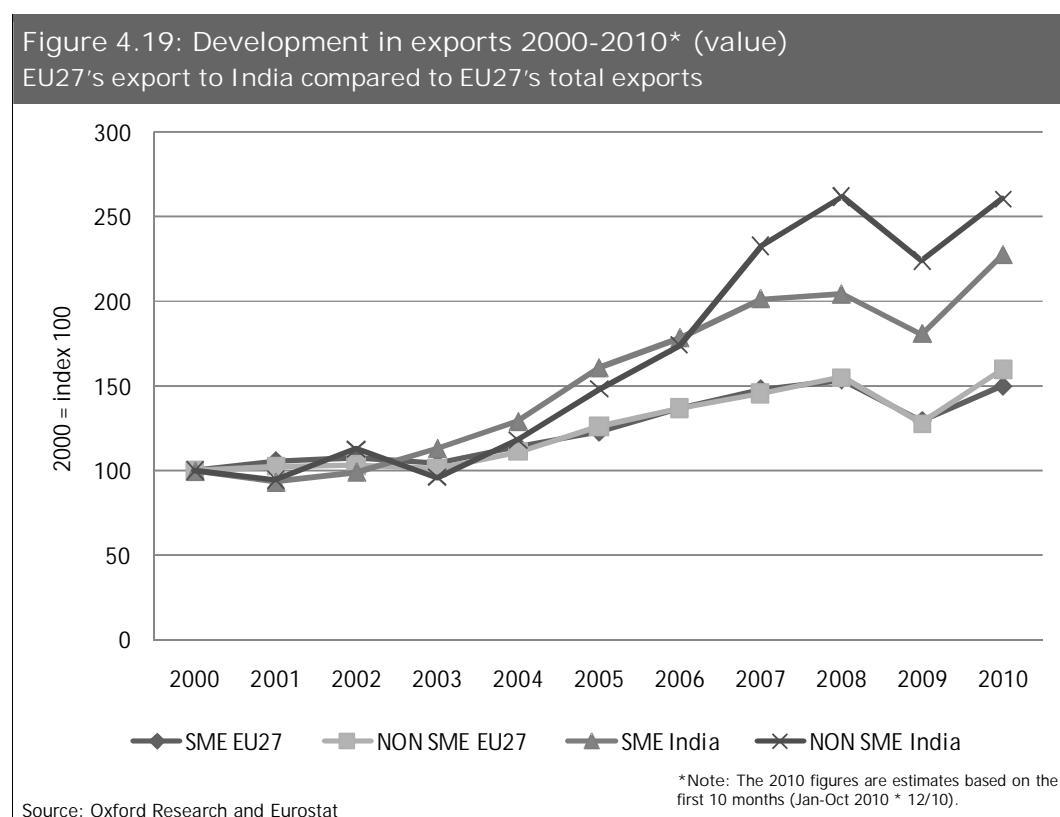
Rk	Partners	Mio euro	%
	<b>World</b>	<b>4.941,0</b>	<b>100,0%</b>
1	EU27	1.411,0	28,6%
2	Turkey	745,3	15,1%
3	Russia	538,7	10,9%
4	United States	438,6	8,9%
5	Ukraine	351,8	7,1%
6	Azerbaijan	276,2	5,6%
7	China	214,0	4,3%
8	Japan	170,7	3,5%
9	United Arab Emirati	146,0	3,0%
10	Israel	98,3	2,0%

Source: EU (2009): Georgia – EU bilateral trade and trade with the world. Originally by the IMF

As it can be seen from table 4.7, the share of Georgian imports originating from the EU is large (28.6%), followed by Turkey (15.1 %) and Russia (10.9 %). However the majority of the imports originate from non-SME sectors.

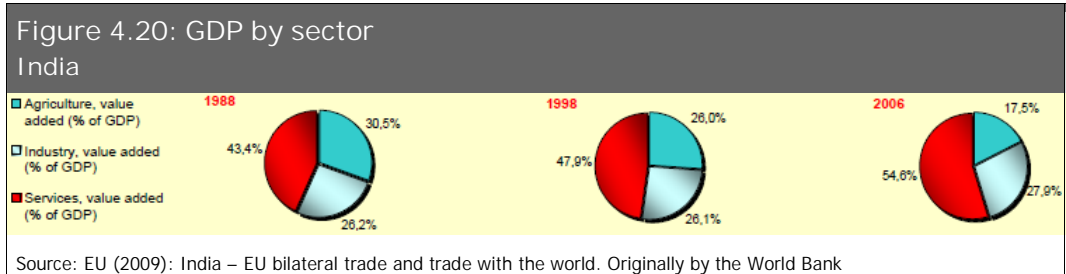
## 4.7 India

EU's export to India increased considerably during the second half of the last decade. The increase of the SME sectors was the greatest until 2006 when the exports of the non-SME sectors increased considerably. Figure 4.19 shows that the financial crisis has had a large impact on the EU's export to India – it fell by approximately 13 % from 2008 to 2009. From 2009 to 2010, the exports of the non-SME sectors and SME sectors have increased once more.



It is seen from figure 4.20 that the Indian economy – like most of the other economies of most of the other target countries – has undergone great changes over the latest decades. Agriculture's share of GDP has decreased by 13 percentage points since 1988, but most noticeable is the increase in the share of the service economy, which now constitutes almost 55 % of the total Indian GDP. This increase in the service sector's share of GDP has taken place at a much lower level of per capita income, than in other development economies, which have been through a similar progression. The development is primarily due to a sharp increase in exports of software and IT-enabled services.<sup>29</sup>

<sup>29</sup> The Vienna Institute for International Economic Studies (2009): EU and BRICs: Challenges and opportunities for European competitiveness and cooperation



India has suffered less from the global recession than most other South and East Asian countries despite a quite significant downturn in the last months of 2008. Growth recovered during the first months of 2009 and even though growth rates are not quite on level with China, then it is expected by the IMF that the economy will grow 8.1 % in 2014.<sup>30</sup>

A key reason for the limited impact on the financial crisis on the Indian economy is the substantial stimulus package introduced by the national government. The stimulus included measures such as lowering factory levies and general increased government spending and has been financed by an excessive government borrowing program of more than 65 billion €, resulting in an expected budget deficit of 6.8 % of GDP. The Indian government has most recently confirmed that the stimulus measures will not be abandoned until evidence of a strong recovery is to be seen.<sup>31</sup> As a result of this, the importance of a timely withdrawal of the stimulus has been emphasised from several sides including the OECD.<sup>32</sup>

Reining in the large fiscal deficit, which has widened further in 2009, will be particularly difficult given both its magnitude and the permanent nature of recent increases in spending.

The concerns expressed by commentators are primarily linked to the rising inflation, which might puncture the economic recovery of India, should it be left unattended. Currently, inflation of food prices is already becoming an important issue with October's year-on-year overall food price increase being 13.3 % and up to 96.4 % for certain products.<sup>33</sup>

A second important reason for the fast economic recovery of India is that the economy is less depending on exports than most other Asian countries. As noted previously, export of services are of great economic importance, but the same can only be said for a few industries, mainly chemical and pharmaceuticals as well as production of engineering goods.<sup>34</sup>

Looking further ahead, analysts suggest that the potential for exports to the Indian market is likely increase substantially. A number of governmental programs are expected to stimulate the consumption of especially the rural population of India. The National Rural Employment Guarantee Act promises at least 100 days of employment per year for each

<sup>30</sup> IMF (2009): World Economic Outlook October 2009

<sup>31</sup> Jagota, J. & George, B. (2009): India Stimulus to Stay Until Firm Economic Recovery. November 16th 2009, Wall Street Journal

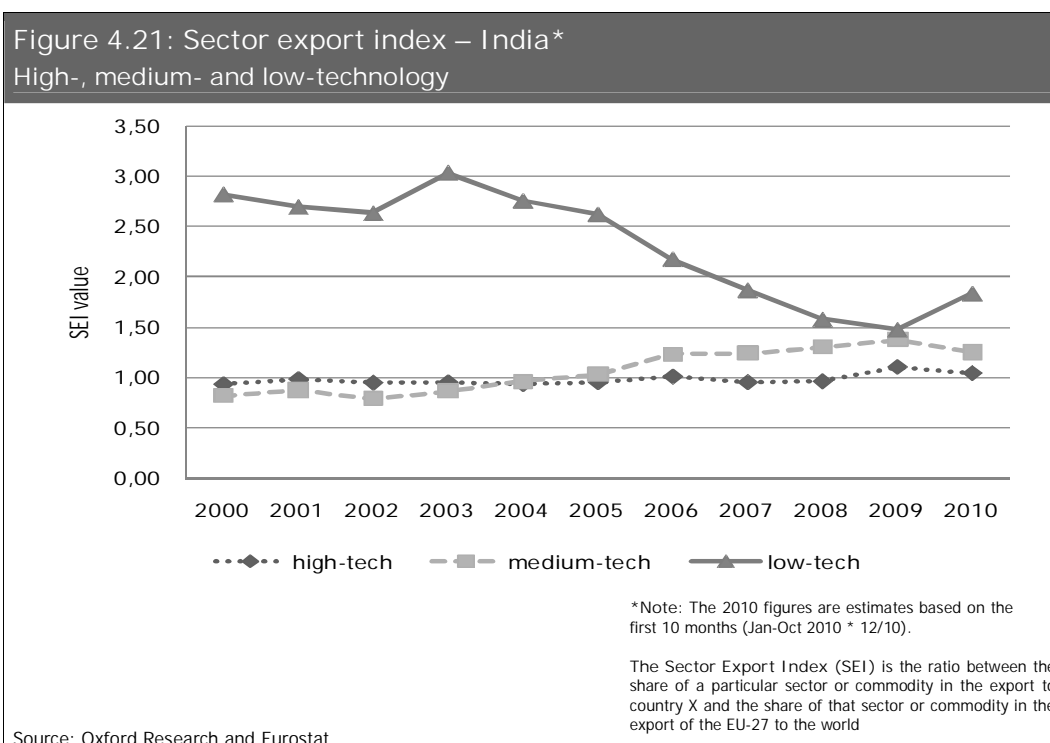
<sup>32</sup> OECD (2009): OECD Economic Outlook no. 86, November 2009

<sup>33</sup> Wharton School of the University of Pennsylvania (2009): Will Rising Inflation Deflate India's Economic Recovery? Published November 19, India Knowledge @ Wharton

<sup>34</sup> The Vienna Institute for International Economic Studies (2009): EU and BRICs: Challenges and opportunities for European competitiveness and cooperation

rural household – something that already has had a significant influence on the economic development of rural areas. It is now being suggested to extend the act to urban areas too. A second measure targeting rural underdevelopment is the Bharat Nirman programme, which deals with expansion of rural infrastructure.<sup>35</sup> The Indian government is in this way giving attention to the development of rural areas, which is crucial for the expansion of the Indian market – for Indian as well as international firms.

Despite these efforts, export to India is still not without problems for firms from EU countries. A number of issues are hampering export to India including a restrictive regulatory environment and tariff barriers to imports. Non-tariff barriers include quantitative restrictions, import licensing, mandatory testing and certification for many products, as well as complicated and lengthy customs procedures.<sup>36</sup> As a result of these problems, India is ranked 133<sup>rd</sup> out of 183 countries – just before Madagascar, but right after Malawi – in the 2010 version of the World Bank's Ease of Doing Business Index.<sup>37</sup>



<sup>35</sup> The Vienna Institute for International Economic Studies (2009): EU and BRICs: Challenges and opportunities for European competitiveness and cooperation

<sup>36</sup> European Commission Trade – ec.europa.eu/trade

<sup>37</sup> World Bank (2009): Doing Business 2010

Table 4.8: Share of import India

Rk	Partners	Mio euro	%
	<b>World</b>	<b>202.833,6</b>	<b>100,0%</b>
1	<b>EU27</b>	<b>34.739,2</b>	<b>17,1%</b>
2	<b>China</b>	<b>24.203,6</b>	<b>11,9%</b>
3	<b>United States</b>	<b>13.960,4</b>	<b>6,9%</b>
4	<b>Singapore</b>	<b>8.946,2</b>	<b>4,4%</b>
5	<b>Australia</b>	<b>8.442,3</b>	<b>4,2%</b>
6	<b>United Arab Emirates</b>	<b>5.956,2</b>	<b>2,9%</b>
7	<b>Japan</b>	<b>5.901,3</b>	<b>2,9%</b>
8	<b>South Korea</b>	<b>5.635,4</b>	<b>2,8%</b>
9	<b>Indonesia</b>	<b>5.357,4</b>	<b>2,6%</b>
10	<b>Malaysia</b>	<b>5.041,6</b>	<b>2,5%</b>

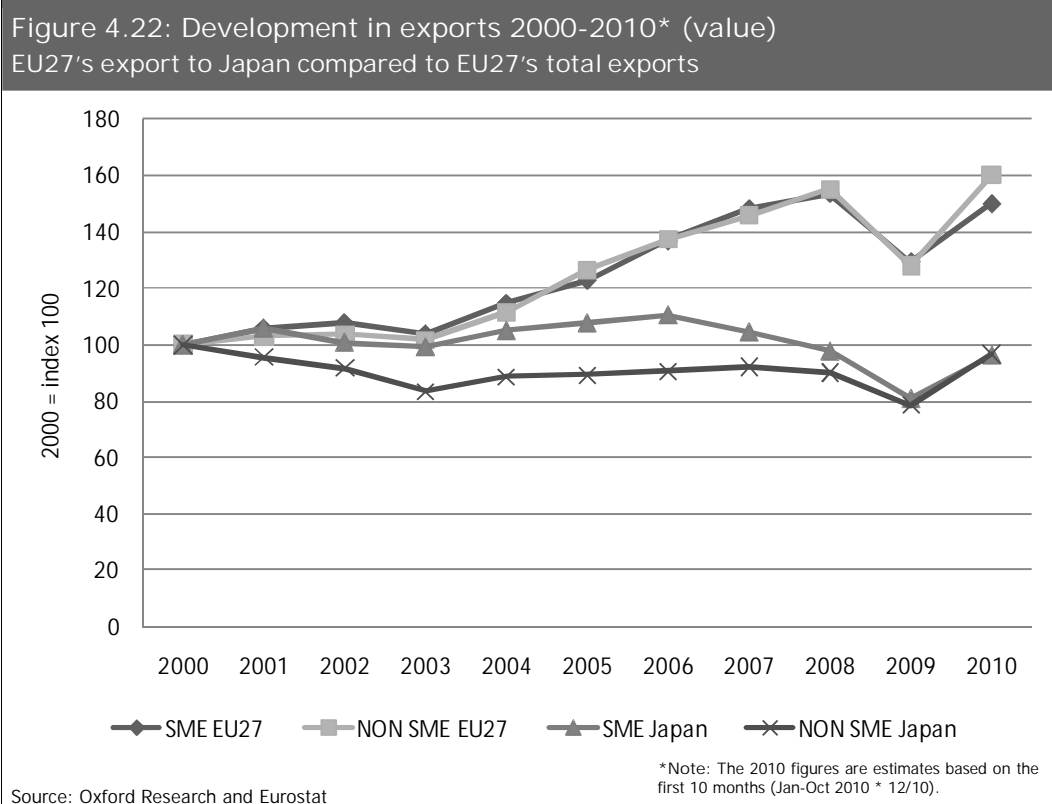
Source: EU (2009): India – EU bilateral trade and trade with the world. Originally by the IMF

The position of EU is strong in India in relation to export, as it is seen from table 4.8. It will be of large economic importance if European firms are able to maintain this position, as the Indian economy is projected to grow quickly over the coming years. However recent figures suggest that the share of import from the EU has decreased significantly over the last period of time. The financial crisis has had a modest impact on the economy, and Indian governmental policy seeks to support the development of the country's rural regions – which is of key importance for securing continuing growth and consumption.

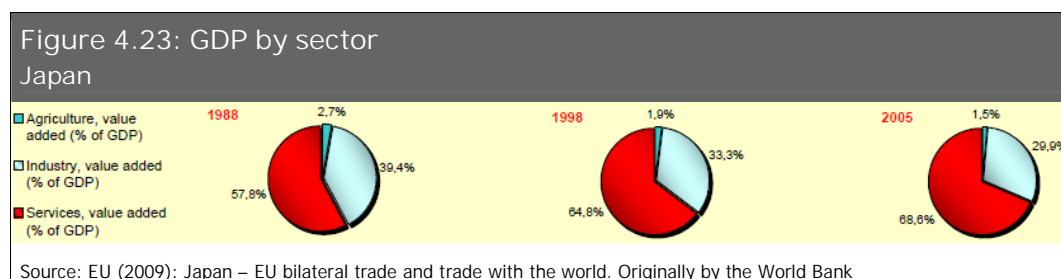
Still, the development of EU export to India will be influenced by the – tariff as well as non-tariff – barriers, which currently hinder a greater international trade with India. Further, the ability to learn from the successful EU exporting industries described in this section will also be of great importance.

## 4.8 Japan

The development of EU's export to Japan has been quite weak during the ten years analysed. The export has decreased considerably due to financial crisis, but seems to recover from 2009 to 2010. The exports of SME sectors were stable throughout the period while the exports of non-SME sectors fell during especially the period 2000-2003, as it appears from figure 4.22.



The changes in the overall structures of the Japanese economy have been modest over the last 17 years, as it can be seen from the following figure 4.23. This does of course reflect that the economy of Japan was already developed in 1988, contrary to most other countries included in this study. The main change, which has taken place, is the continuing increase in the share of the service sector for the Japanese economy. The share of GDP by this sector was 68.6 % in 2006, increasing from 64.8 % in 1998.



The financial crisis has had a significant negative impact of the economic growth in Japan, due to the export orientation of the economy, and despite a very large intervention by the Japanese government – the fiscal packages introduced in Japan will be close to 5 % of GDP in 2009-2010. The interventions in Japan have particularly targeted consumption through injection of public capital in depository institutions, encouragement of lending to SMEs, stabilisation of stock markets and the introduction of a program providing emergency loans to firms.<sup>38</sup>

A key area of importance for the government is now to implement exit strategies from credit-guarantee programs targeting the private sector – previous experiences show that excessive risk taking is a matter of concern in relation to such programs, also in Japan.<sup>39</sup> The new government has however introduced plans to increase public spending through a package worth 22.4 billion € focusing on job creation. The OECD notes that:<sup>40</sup>

Additional fiscal stimulus is not warranted given the expected pick-up in output growth, as well as Japan's large budget deficit and high public debt ratio. The government should thus finance its planned rise in public expenditure through cuts in other spending programmes.

The long-term prospects for the Japanese economy is quite modest – growth is expected to be 1.8 % in 2014.<sup>41</sup> The OECD is expecting growth to reach 2 % in 2011.<sup>42</sup>

Considering the evolution of trade relations between EU and Japan, it should be noted that 15-20 years have seen a clear improvement in the possibilities for European firms to gain access to the Japanese market. The opening of the Japanese economy to international competition in addition to the introduction of structural reforms have improved the European export possibilities.<sup>43</sup>

Turning to the composition of EU's export to Japan, the first observation, which can be made from figure 4.24, is that the greatest potential for specialization lies within the medium-technology sector. Additionally, the low-technology sector may hold some opportunities – looking into the explanations behind the drop in SEI value in 2007 could be interesting in this respect.

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<sup>38</sup> OECD (2009): Economic Survey of Japan 2009: Overcoming the global crisis: the need for a new growth model

<sup>39</sup> IMF (2009): World Economic Outlook October 2009

<sup>40</sup> OECD (2009): OECD Economic Outlook no. 86, November 2009

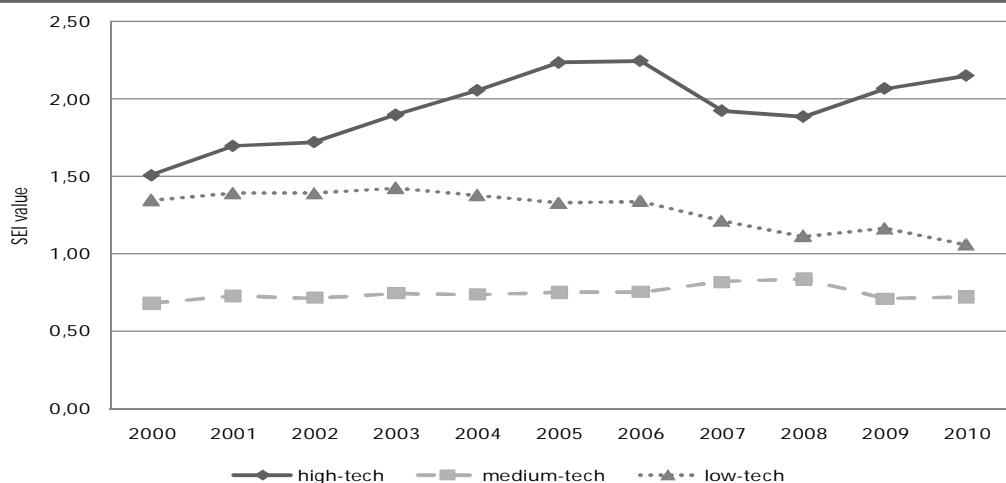
<sup>41</sup> IMF (2009): World Economic Outlook October 2009

<sup>42</sup> OECD (2009): OECD Economic Outlook no. 86, November 2009

<sup>43</sup> DG Trade – ec.europa.eu/trade



Figure 4.24: Sector export index – Japan\*  
High-, medium- and low-technology



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

The Sector Export Index (SEI) is the ratio between the share of a particular sector or commodity in the export to country X and the share of that sector or commodity in the export of the EU-27 to the world

Source: Oxford Research and Eurostat

Table 4.9: Share of import  
Japan

Rk	Partners	Mio euro	%
	<b>World</b>	<b>503.079,1</b>	<b>100,0%</b>
1	China	97.651,6	19,4%
2	United States	53.694,7	10,7%
3	EU27	47.951,4	9,5%
4	Saudi Arabia	34.565,7	6,9%
5	Australia	32.177,6	6,4%
6	United Arab Emirates	31.799,1	6,3%
7	Indonesia	22.112,9	4,4%
8	South Korea	20.038,8	4,0%
9	Qatar	17.969,7	3,6%
10	Malaysia	15.780,3	3,1%

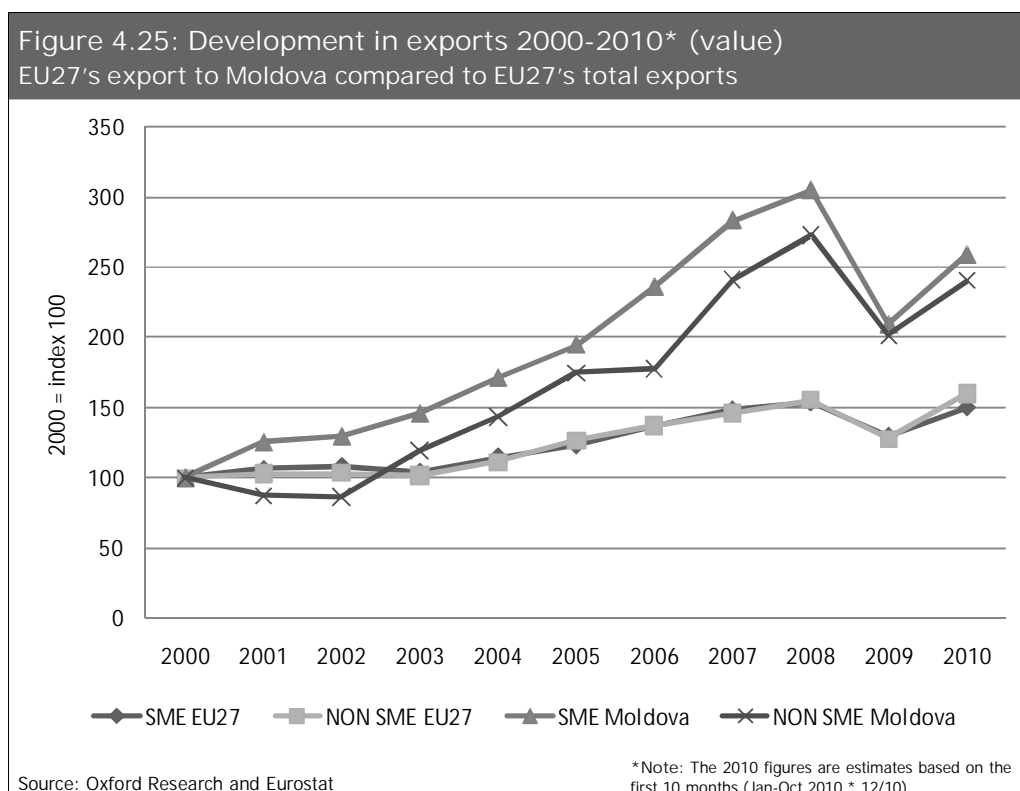
Source: EU (2009): Japan – EU bilateral trade and trade with the world. Originally by the IMF

The EU's share of Japan's import is quite low – less than 10 %. Still, Japan is one of the key markets for European products due to the sheer size of the market, and it is important for European firms and policymakers to maintain a focus on the Japanese market, despite the growing economic importance of the BRIC-countries.

Nevertheless, most analyses show that Japanese growth is going to be quite low during the coming years. Increasing export thus mainly depends on the ability to win market shares. A thorough analysis of the SME sectors, which have managed that during recent years, will be of great value in this respect.

## 4.9 Moldova

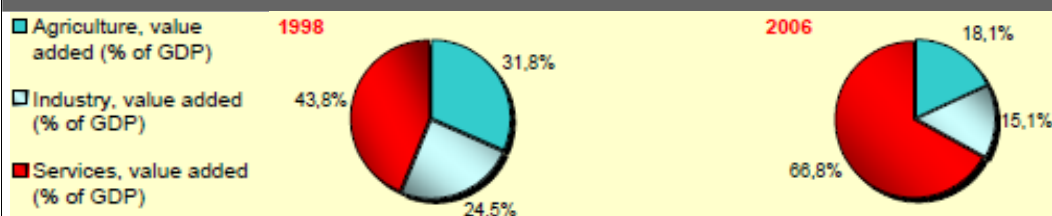
In the period 2000-2008, the EU exports to Moldova have been increasing extensively. As expected the EU exports decreased in 2009 as a consequence of the economic crisis, and has increased once more from 2009 to 2010. The growing development in exports applies to the SME dominated sectors as well as the non-SME dominated sectors, but it is worth mentioning that the SME dominated sectors have been growing more steadily.



From 1998 to 2006 the composition of the sectors in the Moldovan economy has changed significantly, also reflecting the high growth levels that Moldova has experienced. As the only growth sector, the share of the services sector has grown 23 percentage points (from 43.8 % to 66.8 %). By contrast the share of the agricultural (from 31.8 % to 18.1 %) as well as the industrial sector (from 24.5 % to 15.1 %) have both diminished.

Figure 4.26: GDP by sector

Moldova



Source: EU (2009): Moldova – EU bilateral trade and trade with the world. Originally by the World Bank

The Moldovan economy has been growing since 2000, but external shocks in 2006 underscore that there remain to be structural vulnerabilities in the economy, as it is very dependent on Russia. Russia's ban on imports of wine, crops and meat from Moldova and increases in energy prices threatened economic growth and posed challenges to fiscal and external balances.<sup>44</sup> The Moldovan dependency on the Russian economy is also reflected in the negative expectations to the GDP growth in Moldova, as the consequences of the financial crisis have been serious in Russia. By 2014 it is expected that Moldova again will experience positive growth rates (5.0 %).<sup>45</sup>

Even though agricultural products' share of GDP in Moldova has decreased, the sector still remains one of the most important sectors regarding exports to the EU with a share of 19 %. Iron and steel are also central exporting commodities to the EU with a combined share of 24 %.<sup>46</sup> Moldova's exports to the EU remain rather limited and non-diversified, but it is expected that the autonomous trade preferences that the EU has extended to Moldova at the beginning of 2008 will lead to a further diversification of exports and as a result stimulate economic growth in Moldova.<sup>47</sup>

According to the Global Competitiveness Report by World Economic Forum, the most problematic factors for doing business in Moldova are access to financing, corruption and inefficient government bureaucracy.<sup>48</sup> Another main obstacle is that the nationwide adoption of standards, technical regulations and conformity assessment procedures progress relatively slowly. As a consequence, matching EU standards and technical requirements is still a difficult challenge and a source of additional costs for many Moldovan firms.

Obstacles to trade mostly manifest themselves in the relationship with the EU. This is particular the case of those pertaining to transport infrastructure and logistic problems. This is also the case concerning the development of information and communication technologies and of financial services.<sup>49</sup>

Figure 4.27 shows that the high-technology sector has the lowest SEI values for the period. The medium-technology sector has been hovering around an SEI value of 1 throughout the period, while the low-technology sector is the sector with the generally highest SEI-level above 1.5.

<sup>44</sup> The World Bank (2006): Moldova – Results and the World Bank

<sup>45</sup> IMF (2009): World Economic Outlook October 2009

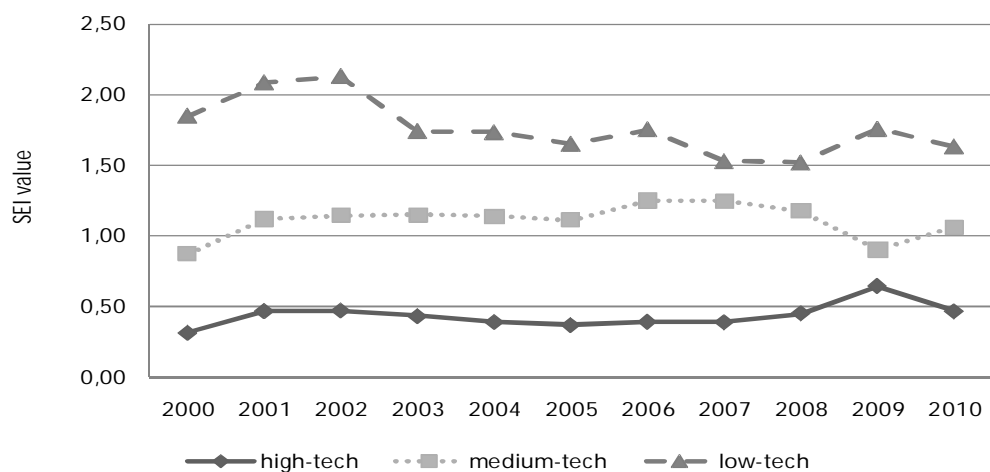
<sup>46</sup> The World Bank (2009): Country Brief – Moldova

<sup>47</sup> DG Trade – ec.europa.eu/trade

<sup>48</sup> World Economic Forum (2007)

<sup>49</sup> European Commission (2009): Final report of the study on the Feasibility, Impact and Implications of a possible Free Trade Area between the European Union and the Republic of Moldova

Figure 4.27: Sector export index – Moldova\*  
High-, medium- and low-technology



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

The Sector Export Index (SEI) is the ratio between the share of a particular sector or commodity in the export to country X and the share of that sector or commodity in the export of the EU-27 to the world

Source: Oxford Research and Eurostat

Table 4.10: Share of import  
Moldova

Rk	Partners	Mio euro	%
	<b>World</b>	<b>3.936,9</b>	<b>100,0%</b>
1	<b>EU27</b>	<b>1.877,6</b>	<b>47,7%</b>
2	<b>Russia</b>	<b>829,1</b>	<b>21,1%</b>
3	<b>Ukraine</b>	<b>571,2</b>	<b>14,5%</b>
4	<b>Belarus</b>	<b>181,2</b>	<b>4,6%</b>
5	<b>Turkey</b>	<b>147,3</b>	<b>3,7%</b>
6	<b>Kasakhstan</b>	<b>79,7</b>	<b>2,0%</b>
7	<b>China</b>	<b>51,1</b>	<b>1,3%</b>
8	<b>United States</b>	<b>49,5</b>	<b>1,3%</b>
9	<b>Brazil</b>	<b>35,2</b>	<b>0,9%</b>
10	<b>Israel</b>	<b>19,1</b>	<b>0,5%</b>

Source: EU (2009): Moldova – EU bilateral trade and trade with the world. Originally by the IMF

In the early 1990s Russia was by far the most important trading partner to Moldova accounting for nearly half of the Moldovan foreign trade. Russia is still an important trading partner, but the EU has taken over the position as the most important exporter to Moldova with a current share of 47.7 % of all imports. However, it should be remembered that the bilateral trade with Moldova represents a merely 0.1 % of the EU's total trade.

Obstacles to a further development of EU exports to Moldova are domestic structural factors in Moldova such as the poorly developed finance sector, the high level of corruption, inefficient bureaucracy, infra-structural problems and a general slow

progress towards an internationalisation and diversification of the economy.

## 4.10 Russia

The export of EU to Russia has been greatly increasing from 2000 to 2008 – but it did also experience a significant fall in 2009. From 2009 to 2010, exports for the non-SME sectors and SME sectors have increased. The increase has been driven by a surge in commodity prices leading to growing GDP per capita over the recent years: GDP per capita was 54 % of the EU average in 2008, and the increase since 2000 had been greater than in the new Member States entering the EU in May 2004.<sup>50</sup>

It is noteworthy that the SME sectors' exports have been growing less than the non-SME sectors' exports throughout the decade. The gap did especially increase from 2007 to 2008, just before the financial downturn hit Russia.

Figure 4.28: Development in exports 2000-2010\* (value)  
EU27's export to Russia compared to EU27's total exports

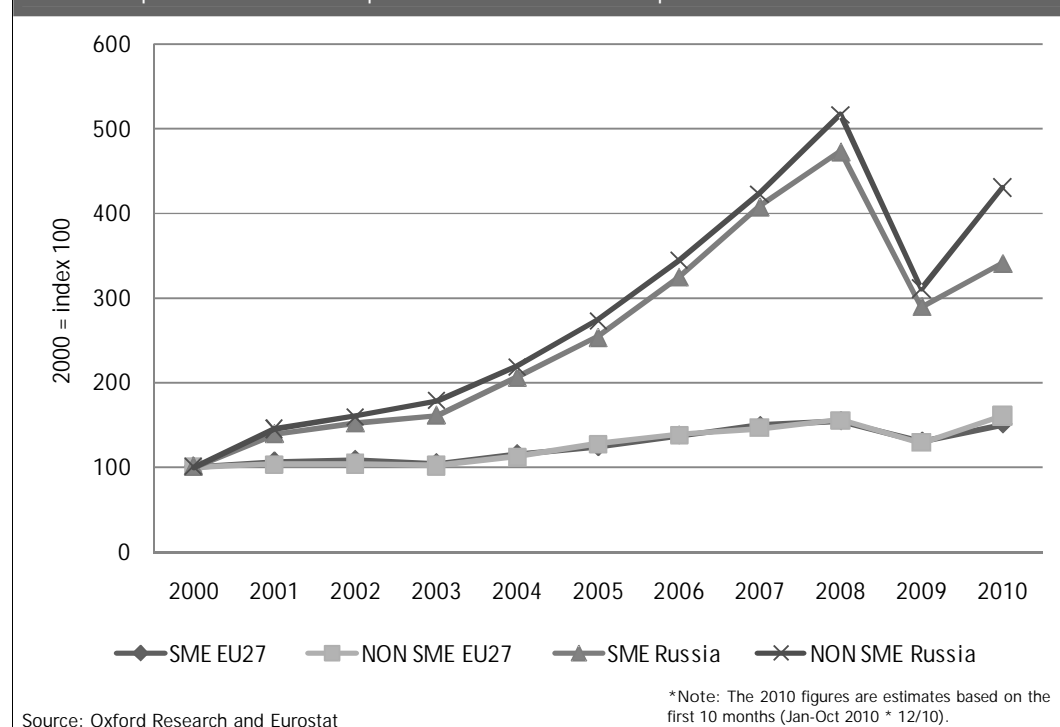
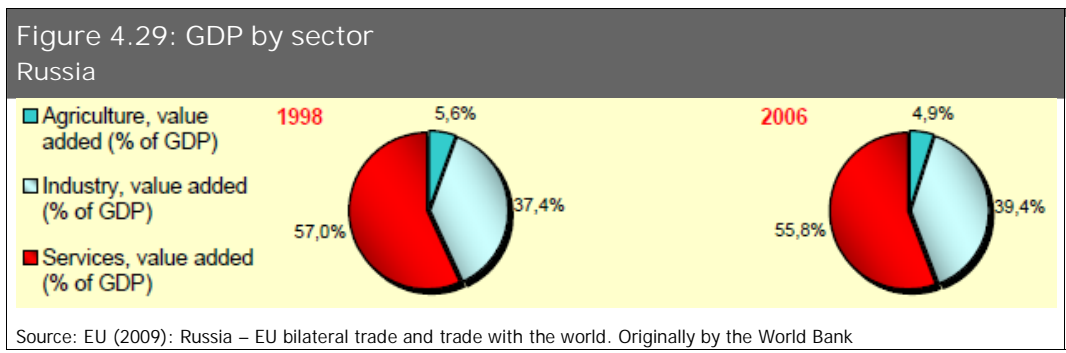


Figure 4.29 shows the contribution of the three main sectors to the Russian GDP. It is interesting to note that very few shifts have taken place from 1998 to 2006: the industrial sector's share has increased by 2 percentage points, while the share of the service sector has – surprisingly – decreased by 1.2 percentage point.

<sup>50</sup> The Vienna Institute for International Economic Studies (2009): EU and BRICs: Challenges and opportunities for European competitiveness and cooperation



The effect of the financial crisis on the Russian economy has – as indicated by the decrease in imports from the EU – been considerable. The contraction of the Russian economy has had serious consequences for many neighbouring countries as well, including a number of the countries included in this analysis.

The economic crisis initially affected Russia through declining commodity prices and a reversal of foreign capital flows, which until then had been an important driver of the Russian economy. These developments implied that investments in capital goods were reduced and investment, productivity and real wages fell considerably.

The consequences of these issues in terms of growth in GDP have been significant: the growth level is projected to be 5.0 % in 2014. Still, the state of the Russian economy continues to be vulnerable and a recovery depends on increasing commodity prices, growth in the US and Europe as well as the continuation of the current expansionary fiscal policies. Thus, the situation concerning the stimulus measures differs in Russia compared to e.g. India and Japan: the OECD emphasises the importance of implementing exit strategies in the cases of the two latter, while Russia is urged not to remove the policy measures too quickly.<sup>51</sup> The lack of credit poses a significant problem in Russia and firms – even state owned and controlled firms – have increasingly been forced to seek credit from sources abroad.

An important issue hindering an extension of current trade relations with Russia is the country's lack of WTO membership. Russia applied for GATT membership as early as 1993, but a number of issues remain to be solved – some political (the relationship to Georgia), but mostly economical. A key issue is the size of the Russian tariffs – however an agreement has been made to bind the average tariffs on goods at 8 %, which is slightly higher than agreements made with other recent accession countries.<sup>52</sup>

One of the most difficult areas of negotiation has been related to issues of IPR. Frequent complaints by foreign firms concerning a lack of action against copying of goods such as software, music, film and pharmaceuticals have posed a significant problem. Progress was made when the Russian government passed a new Civil Code in 2008, but both EU and the US has since then pointed to deficiencies in the code. Russia has recently agreed to address these, including issues related to enforcement of the code.<sup>53</sup>

<sup>51</sup> OECD (2009): OECD Economic Outlook no. 86, November 2009

<sup>52</sup> OECD (2009): Globalisation and Emerging Economies – Brazil, Russia, India, Indonesia, China and South Africa

<sup>53</sup> OECD (2009): Globalisation and Emerging Economies – Brazil, Russia, India, Indonesia, China and South Africa

From figure 4.30 it is clear that the highest level of specialisation is for medium-technology, hovering around a SEI-value of 1.4. The specialisation of the low-technology sector has decreased steadily in the period, while the SEI-value for the high-tech technology sector has evolved steadily below a level of 1.

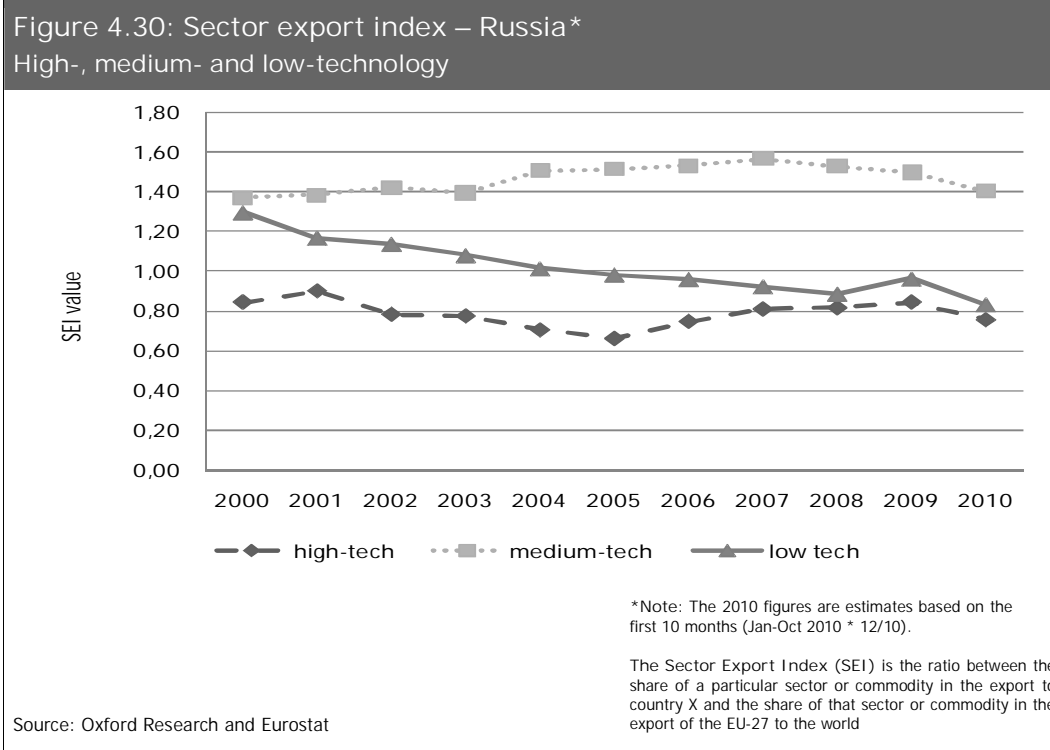


Table 4.11: Share of import  
Russia

Rk	Partners	Mio euro	%
	<b>World</b>	<b>186.038,4</b>	<b>100,0%</b>
1	<b>EU27</b>	<b>84.534,0</b>	<b>45,4%</b>
2	China	24.089,5	12,9%
3	Japan	12.126,7	6,5%
4	Ukraine	11.774,8	6,3%
5	United States	8.297,3	4,5%
6	South Korea	7.705,5	4,1%
7	Belarus	7.329,1	3,9%
8	Kasakhstan	4.690,6	2,5%
9	Turkey	4.050,6	2,2%
10	Brazil	3.246,4	1,7%

Source: EU (2009): Russia – EU bilateral trade and trade with the world. Originally by the IMF

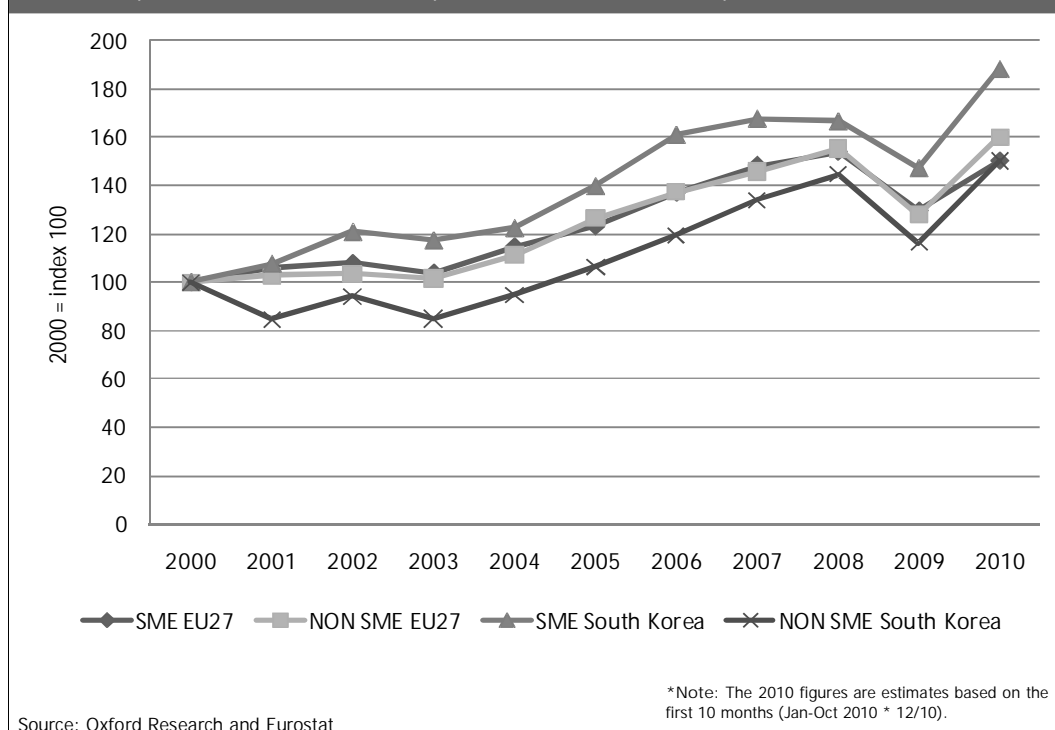
The position of European products is very strong in Russia, as it is seen from table 4.11. However, the future development of the trade to Russia depends on several important issues including the progress of the WTO negotiations and the ability of the Russian government to manage the impacts of the economic crisis. A further key factor will be the development of the oil prices, which are essential for the overall condition of Russia's economy and thus the demand for foreign products. A final issue is the future demographic development in Russia. The population is expected to decline with ten million people during the next decade, implying that economic growth is an essential condition, if the

absolute size of the Russian market is to grow.

## 4.11 South Korea

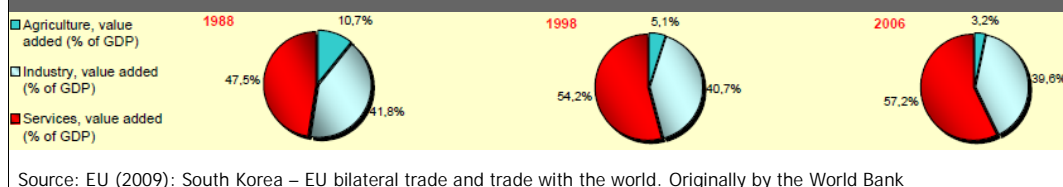
South Korea is a largely free-market economy that is the fourth largest in Asia and the 15<sup>th</sup> largest in the world.<sup>54</sup> From 2000 to 2008 the development in the EU exports to South Korea has increased. Due to the financial crisis it decreased from 2008 to 2009, beginning to increase again from 2009 to 2010. This goes for both the SME and the non-SME sectors. From 2000 to 2010, the index value for the SME sectors has been higher than the index value for non-SMEs.

Figure 4.31: Development in exports 2000-2010\* (value)  
EU27's export to South Korea compared to EU27's total exports



Between 1960 and 1980 South Korea transformed into a well-developed economy,<sup>55</sup> and thus the composition of the sectors has not changed significantly since 1988, however the figure shows that the agricultural sector has decreased from a share of 10.7 % in 1988 to a share of 3.2 % in 2006. This decrease is mirrored in the increase in the share of the services sector from 47.5 % in 1988 to 57.2 % in 2006.

Figure 4.32: GDP by sector  
South Korea



<sup>54</sup> IMF (2008): List of countries by GDP

<sup>55</sup> The Conference Board (2009): Total Economy Database



Following the economic crisis, South Korea has achieved one of the earliest and strongest recoveries in the OECD area, led by exports and expansionary fiscal policy. In the second quarter of 2009, South Korea's economy expanded 2.6 % from the previous three months, and thus the South Korean economy has achieved the highest growth rate among OECD countries.<sup>56</sup> It is expected that by 2014 the growth will be further intensified, reaching a level of 4.5 %.<sup>57</sup>

Regarding the future of the South Korean economy, worries have been expressed by economists that South Korea's growth potential has fallen because of a rapidly ageing population and structural problems such as the rigidity of South Korea's labour regulations, the need for more constructive relations between management and workers, the country's underdeveloped financial markets, and a general lack of regulatory transparency. Korean policy makers are in particular increasingly worried about diversion of corporate investment to China and other lower wage countries.<sup>58</sup>

The South Korean economy relies heavily on exports and is the eleventh largest exporter on a global level.<sup>59</sup> South Korea is home to many well-known global conglomerates such as Samsung, Hyundai-Kia, LG and the SK Group. Machinery and transport equipment is by far the largest export area for South Korea to the EU, having a share of 72 % of its overall export to the EU. South Korea has a well developed and dominating manufacturing sector, which is one of the strongest and most efficient in the world. As the heir to the Samsung group has pointed out:<sup>60</sup>

"South Korea is, in the end, a country of manufacturers, and the reason we are recovering faster than other countries is that there is a reserve force of craftsmen in every corner of industry."

South Korea is the EU's eighth largest trade partner, and the EU has become South Korea's second largest export destination. Even though trade relations between South Korea and the EU are well extended, EU companies have significant problems accessing and operating in the South Korean market due to stringent standards and testing requirements for products and services often creating barriers to trade. Both in its regular bilateral contacts with South Korea and through its ongoing Free Trade Agreement (FTA) negotiations with Korea, the EU is seeking to improve this situation, and in 2009 a new FTA between South Korea and the EU has been agreed upon. Accordingly, the EU-Korea FTA is the most comprehensive FTA ever negotiated by the EU. Import duties are eliminated on nearly all products and there is far-reaching liberalisation of trade in services covering all modes of supply.<sup>61</sup>

The export index in figure 4.33 shows a dramatic decrease in the SEI-value of the high-technology sector from 2006 to 2007, equalling the level of specialisation in the high-technology sector with the medium-technology sector from 2007 to 2010.

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<sup>56</sup> OECD (2009): Key economic projections

<sup>57</sup> IMF (2009): World Economic Outlook October 2009

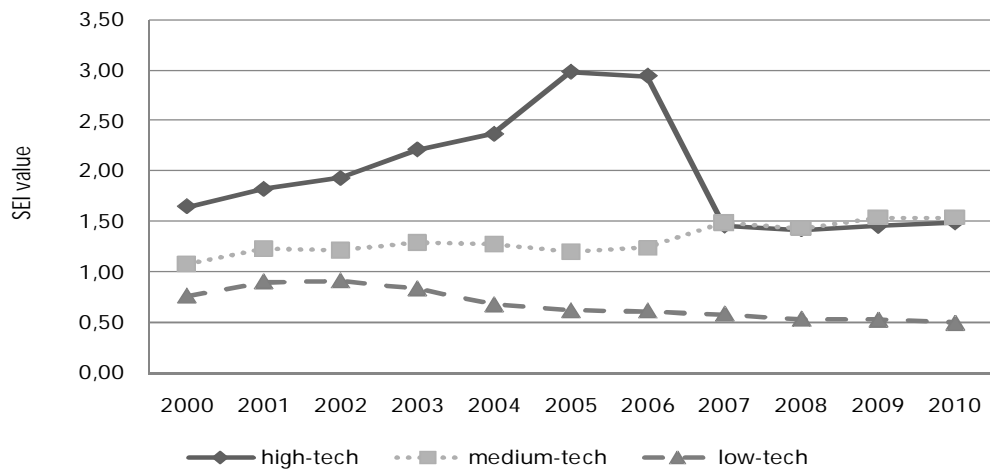
<sup>58</sup> U.S. Department of State (2009): <http://www.state.gov/r/pa/ei/bgn/2800.htm>

<sup>59</sup> CIA World Factbook (2008)

<sup>60</sup> The Washington Post (2009): South Korean economy seems back on track. September 7<sup>th</sup> 2009

<sup>61</sup> The European Commission (2009): EU-Korea FTA

Figure 4.33: Sector export index – South Korea\*  
High-, medium- and low-technology



\*Note: The 2010 figures are estimates based on the first 10 months (Jan-Oct 2010 \* 12/10).

The Sector Export Index (SEI) is the ratio between the share of a particular sector or commodity in the export to country X and the share of that sector or commodity in the export of the EU-27 to the world

Source: Oxford Research and Eurostat

Table 4.12: Share of import South Korea

Rk	Partners	Mio euro	%
	<b>World</b>	<b>287.393,5</b>	<b>100,0%</b>
1	China	56.531,2	19,7%
2	Japan	44.455,2	15,5%
3	<b>EU27</b>	<b>28.345,0</b>	<b>9,9%</b>
4	United States	26.032,2	9,1%
5	Saudi Arabia	17.981,2	6,3%
6	Australia	11.379,4	4,0%
7	United Arab Emirat	10.753,1	3,7%
8	Singapore	9.192,6	3,2%
9	Kuwait	7.431,5	2,6%
10	Qatar	7.182,7	2,5%

Source: EU (2009): South Korea – EU bilateral trade and trade with the world. Originally by the IMF

The EU is the third largest importer to South Korea, exceeded by the other Asian countries China and Japan. The share of EU import to South Korea amounts to 9.9 % (table 4.12).

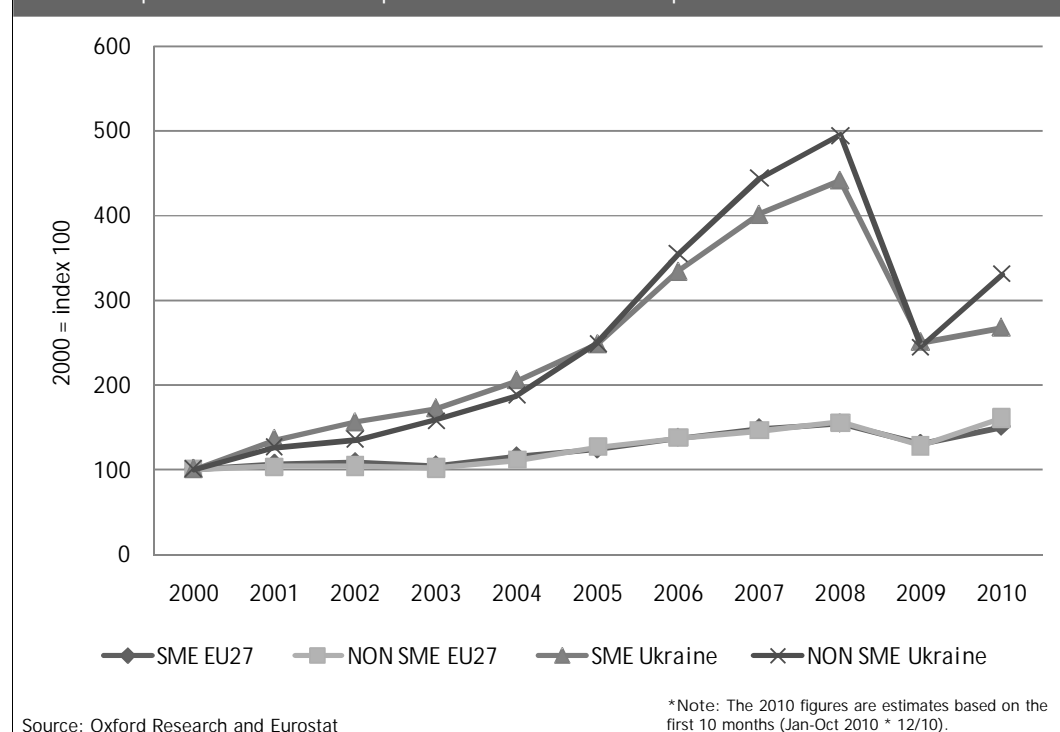
Even though the EU share of the total South Korean import has increased over the recent years, there are still issues that need to be addressed in order to develop the trade relation between the EU and South Korea even further. The newly agreed EU-Korea FTA is a large step forward in the direction of facilitating increased trade with the easing of tariff and non-tariff barriers between the two parties.

It remains to be seen whether the ratification of the EU-Korea FTA can imply that a sector such as Manufacture of medical, precision and optical instruments can regain a more prominent position in the EU export to South Korea.

## 4.12 Ukraine

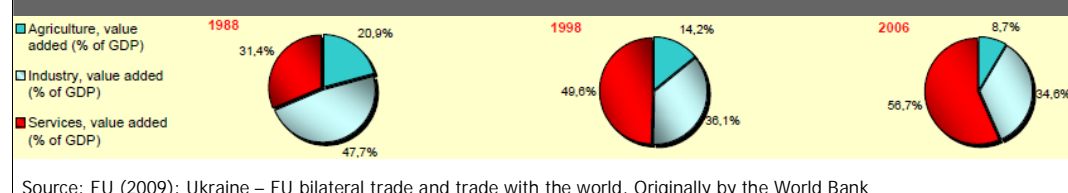
The relative increase in exports to Ukraine has been among the largest of the 12 target countries. It is seen from figure 4.34 that the growth in SME sectors was a little higher than the growth of non-SME sectors during the first four years of the period, but this changed after 2005. The economic downturn has however implied that the two groups of industries are now at an equal index-level, but exports for the non-SME sectors have increased relatively more than the exports for SME sectors from 2009 to 2010.

Figure 4.34: Development in exports 2000-2010\* (value)  
EU27's export to Ukraine compared to EU27's total exports



The composition of the Ukrainian economy has undergone significant changes over the last 18 years. Agriculture's share of value added has fallen from 20.9 % in 1988 to 8.7 % in 2006. The industrial sector's share has witnessed a comparable decrease from 47.7 % to 34.6 % meaning that the share of the service sector has almost doubled from 31.4 % in 1988 to 56.7 % in 2006.

Figure 4.35: GDP by sector  
Ukraine



As it is the case in Armenia – which is the only country in this analysis suffering from a higher decrease in GDP than Ukraine – falling commodity prices is the main reason for the scale of the recession in Ukraine: a large share of the country's export is made up by steel, which has seen decreasing prices even in the fall of 2009.<sup>62</sup> This has led to acute economic problems in the Eastern part of Ukraine, which is the industrial heartland of the country. Approximately 80 % of the economy in the region of Donetsk, home to the country's third largest city, depends on the metal industry, and mass unemployment has followed the decreasing steel prices.<sup>63</sup>

In order to restore financial stability and avoid a huge national deficit, a loan of 11.2 billion € was issued by the IMF in November 2008.<sup>64</sup> The state of the economy did however develop more negatively than expected, but a complete meltdown of the economy, which threatened the country in the first quarter of 2009 with a 20 % decrease in GDP, has been avoided. A possible second emergency loan is currently under negotiations with the IMF, as the fear of a breakdown of the Ukrainian banking system is growing larger. During mid-October it became unclear whether banks with large debts in US\$ and € would be able to repay short-term loans as Hryvnia, the Ukrainian currency fell to a record low.<sup>65</sup>

Currently attention gathers around the Ukrainian authorities, where considerable disagreement exists concerning key economic policies, including an expansionary 2010 budget – suggesting a deficit of up to 8 % of GDP – and new social standards law. The current lack of consensus is seen as the main obstacle towards a recovery of the Ukrainian economy.<sup>66</sup>

A further issue, which will have a great effect on the Ukrainian economy, is the development in relations to Russia. The numerous disputes over supply of gas in recent years have seriously damaged the relationship between the two countries affecting trade in a negative way. The disputes are also seen as an important reason for the 2007 launch of the South Stream pipeline planned for completion in 2015. Initially, the pipeline was intended to go through the Ukrainian continental shelf under the Black Sea,<sup>67</sup> but it was later redirected to the Turkish part, making it possible to avoid any Ukrainian influence on the project.<sup>68</sup> The completion of the South Stream project is likely to seriously reduce the amount of gas going through Ukraine, and thus diminish the transfer fees to a proportionate extent.

In terms of trade relations, Ukraine became a member of the WTO in 2008, opening up for a strengthening of trade between EU and Ukraine. Since then, negotiations on a so-called deep and comprehensive free trade area (DCFTA) have been initiated. The ambition is that the DCFTA will increase access to the European market for Ukrainian firms as well as promoting investments in Ukraine by European firms.<sup>69</sup> According to Figure 4.36,

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<sup>62</sup> Matthews, R. G. (2009): Steel Prices Drop, Reversing Course in Sign Mills Ramped Up Too Quickly. September 14<sup>th</sup> 2009, Wall Street Journal

<sup>63</sup> Stern, D. (2009): Economic Crisis Sweeps Eastern Ukraine. April 7<sup>th</sup> 2009, New York Times.

<sup>64</sup> IMF (2009): Regional Economic Outlook – Western Hemisphere October 2009

<sup>65</sup> Evans-Pritchard, A. (2009): Crisis spreads to Eastern Europe as Ukraine, Hungary and Serbia call IMF, October 15<sup>th</sup> 2009, The Telegraph

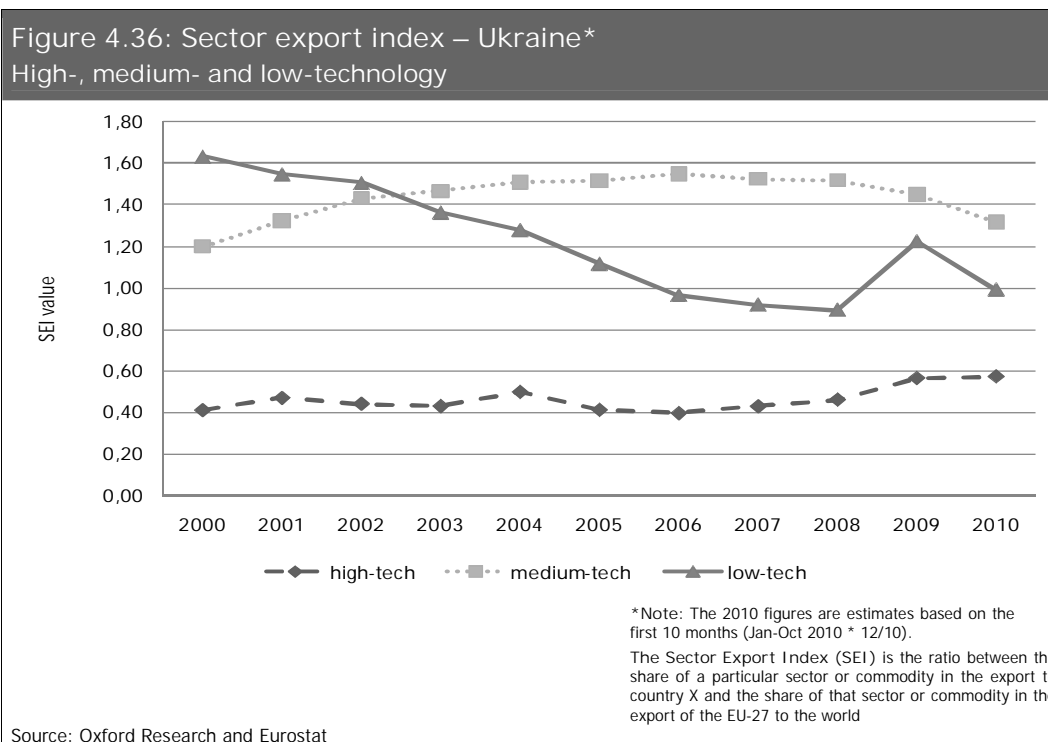
<sup>66</sup> IMF Survey Magazine (2009): IMF Urges Ukraine To Stick With Recovery Policies, November 4<sup>th</sup> 2009.

<sup>67</sup> Kommersant (2008): Ukraine Surfaced in South Stream Project, February 29<sup>th</sup> 2008

<sup>68</sup> Pronina, L. & Meric, A. B. (2009): Turkey Offers Route for Gazprom's South Stream Gas Pipeline. Bloomberg, August 6<sup>th</sup> 2009

<sup>69</sup> DG Trade – ec.europa.eu/trade

the low-technology sector has experienced a long and steady drop since 2000, with a sudden increase in 2009 and a drop again in 2010. The high-technology sector has had a steady development from 2000 to 2010.



**Table 4.13: Share of import Ukraine**

Rk	Partners	Mio euro	%
	<b>World</b>	<b>68.028,1</b>	<b>100,0%</b>
1	EU27	27.818,9	40,9%
2	Russia	18.664,5	27,4%
3	China	5.901,5	8,7%
4	Turkmenistan	3.188,4	4,7%
5	Belarus	2.086,4	3,1%
6	Turkey	1.633,3	2,4%
7	Japan	1.497,0	2,2%
8	United States	1.397,2	2,1%
9	South Korea	1.320,2	1,9%
10	India	382,6	0,6%

Source: EU (2009): Ukraine – EU bilateral trade and trade with the world. Originally by the IMF

Overall European exports to Ukraine have increased substantially during the last decade, and 40.9 % of all Ukrainian imports are now from the EU (table 4.13). A rather large percentage (52.7 %) of all exports are constituted by SME sectors.

The severe recession in the country has however led to a sudden sharp decline in export to Ukraine, and the heavy dependence on exports of materials, especially steel, implies that the economic outlook for the country is quite negative compared to most of the other countries included in this analysis. An economic recovery is first of all depending on a consensus among the Ukrainian politicians concerning the way forward and the necessary policy initiatives.

### **4.13 Cross-country comparison of technology sectors**

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This final part of chapter 4 summarises the previous findings of the chapter by taking a cross-country perspective. The following table 4.2 indicates the average SEI values of each sector in each country from 2000 to 2010.

Overall, the number of countries, where the average SEI is above 1, varies between three and nine. The High-technology sector is only of relative large importance in China, Japan and South Korea indicating that – as expected – this industry exports a smaller amount to the less developed countries, where high-tech equipment is not of great demand.

The sector, which is of most widespread importance, is the medium-technology sector with nine countries having average SEI values of more than 1. Five of the CIS member countries – Azerbaijan, Belarus, Moldova, Russia and Ukraine – have an average SEI above 1, indicating the CIS countries prime importance for exports from the medium-technology sector. The three countries where the average value of this industry is less than 1 are Armenia, Georgia and Japan. An interpretation might be that the majority of countries are demanding European machinery, but only some of these countries can afford the more expensive electrical machinery. The average SEI value of Japan in the medium-technology sector does seem a bit puzzling though, indicating that a closer look at the medium-technology sector in Japan is needed.

Concerning the low-technology sector, Armenia, Azerbaijan, India, Japan, Moldova, Russia and Ukraine are the only countries with a SEI value above 1. This doesn't seem to portray a very clear picture of what is happening in the different countries, seeing as the group consists of two BRIC-countries, Russia and India, two CIS countries, Armenia and Moldova, and Japan. It is therefore necessary to take a closer look at the low-technology sector in these countries to draw any conclusions or find clear explanations.

Table 4.49: Average SEI value 2000-2010

+ indicates value above 1, - indicates value below 1

	Armenia	Azerbaijan	Belarus	Brazil	China	Georgia	India	Japan	Moldova	Russia	South Korea	Ukraine
High-technology sector	-	-	-	-	+	-	-	+	-	-	+	-
Medium-technology sector	-	+	+	+	+	-	-	-	+	+	+	+
Low-technology sector	+	+	-	-	-	-	+	+	+	+	-	+

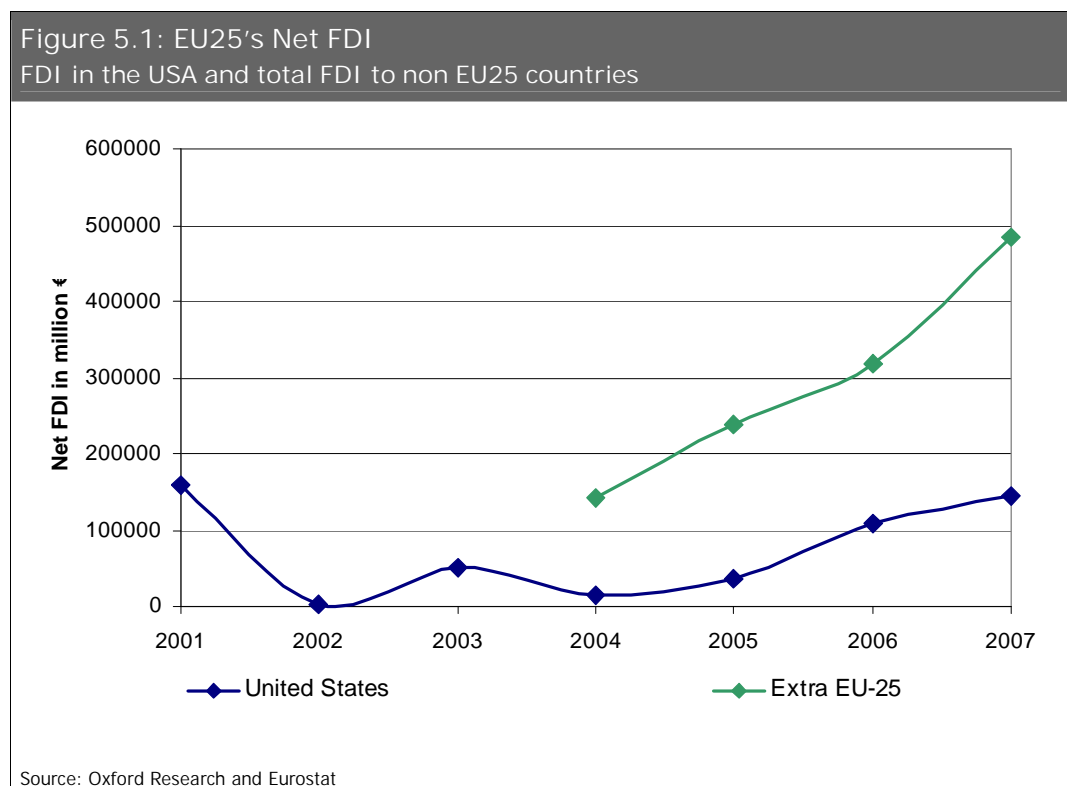
Source: Oxford Research and Eurostat





## Chapter 5. EU's foreign direct investments

Unfortunately, the data accessible on FDI is much less detailed and more fragmented than the data on trade. No data on EU's FDI is available for the following countries: Armenia, Azerbaijan, Georgia and Moldavia. Furthermore, only total FDI figures are available for Belarus, South Korea and Ukraine, and the sector divided figures for the remaining countries are not as detailed as for trade data – for example are the three sectors Manufacturing of paper and paper products, Manufacturing of wood and products of wood and cork, and Publishing, printing and reproduction of recorded media included in the same sector; Wood, publishing and printing. This chapter presents the relevant available data on the EU's FDI to the target countries. It is seen from figure 5.1 that the total amount of FDI originating from the EU increased substantially during the years leading up to the economic crisis. The total value of FDI more than tripled from 2004 to 2007, while the amount of FDI increased more than nine fold to the US – yet from a very low starting level.



The following figure 5.2 shows the development in FDI to the four BRIC countries. FDI has increased for all four countries, primarily in the case of Russia, which received more than 15 billion € from the EU countries in 2007. However, the latest figures from The Russian Federal Statistics Office show that total FDI into Russia has decreased by 45 % during the first half of 2009 year-on-year, which is quite substantial put side by side to other comparable countries – the 2009 version of the World Investment Report by UNC-

TAD projects a global decline of 30 % in FDI.<sup>70</sup> This reflects that investors consider the current Russian business climate as too risky due to the very large dependence on oil prices.<sup>71</sup>

FDI has also increased significantly in Brazil. The EU's net FDI was negative in 2002, due to the economic crisis in the region described in section 5.4, but has since then gained momentum and has now surpassed both India and China. The most recent accounts show that flows of FDI has remained rather stable through the financial crisis.<sup>72</sup>

It can be considered quite surprising that the FDI to China has not increased to higher an even higher level over the six years bearing in mind the rapid economic development in the country – FDI to China was not even doubled from 2004 to 2007 compared to the 3 fold increase of the EU's total FDI. compared to the nine fold increase of the EU's total FDI, which was previously described. This might be explained by attractive investment opportunities in countries closer to the EU, in addition to the continuing concerns of investors associated with property rights and restrictions related to foreign ownership in the Chinese service sectors.<sup>73</sup>

In the case of India, FDI increased from almost zero in 2001 to more than 5 billion € in 2007. A key reason for this is the significant liberalisation of legislation, which has taken place over recent years regarding issues such as controls on the extent and proportion of shares held, need for permission and constraints on profit repatriation and foreign exchange balancing. The result is, that Indian policies concerned with FDI are among the most liberal in the emerging economies – there are now only a few sectors, where FDI is not permitted including defence, atom energy, railway transport and mining of a number of different raw materials.<sup>74</sup>

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<sup>70</sup> UNCTAD (2009): World Investment Report 2009

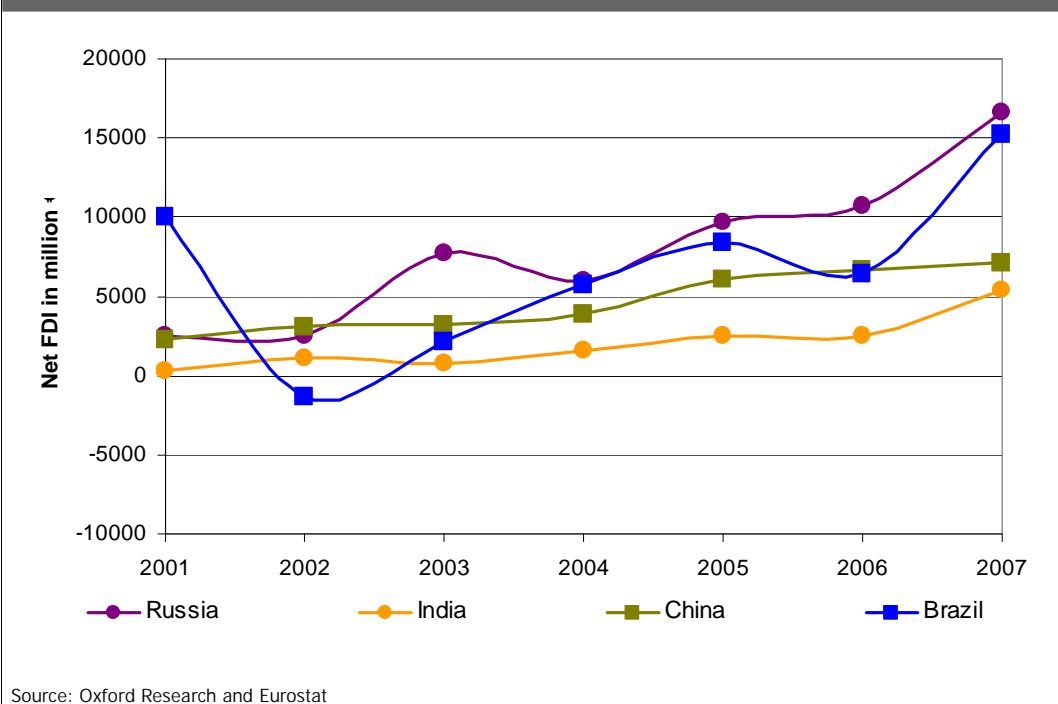
<sup>71</sup> RT (2009): FDI into Russia continues slide as talk of economic rebound gathers pace. August 25<sup>th</sup> 2009

<sup>72</sup> IMF (2009): Regional Economic Outlook – Western Hemisphere October 2009

<sup>73</sup> Negative FDI is most often a result of withdrawal of investment by foreign investors from the host economy.

<sup>74</sup> The Vienna Institute for International Economic Studies (2009): EU and BRICs: Challenges and opportunities for European competitiveness and cooperation

Figure 5.2: EU25's Net FDI  
FDI in Russia, India, China and Brazil



EU FDI data for a further four countries is depicted in figure 6.3. FDI to Belarus is still at a very low level, primarily due to the political conditions in the country. It has nevertheless increased from 2 million € in 2001 to 156 million € in 2007. FDI in Ukraine was also at a low level until 2005, when it increased significantly partly due to the change of government in the country, as Viktor Yushchenko took office as the president in January 2005.

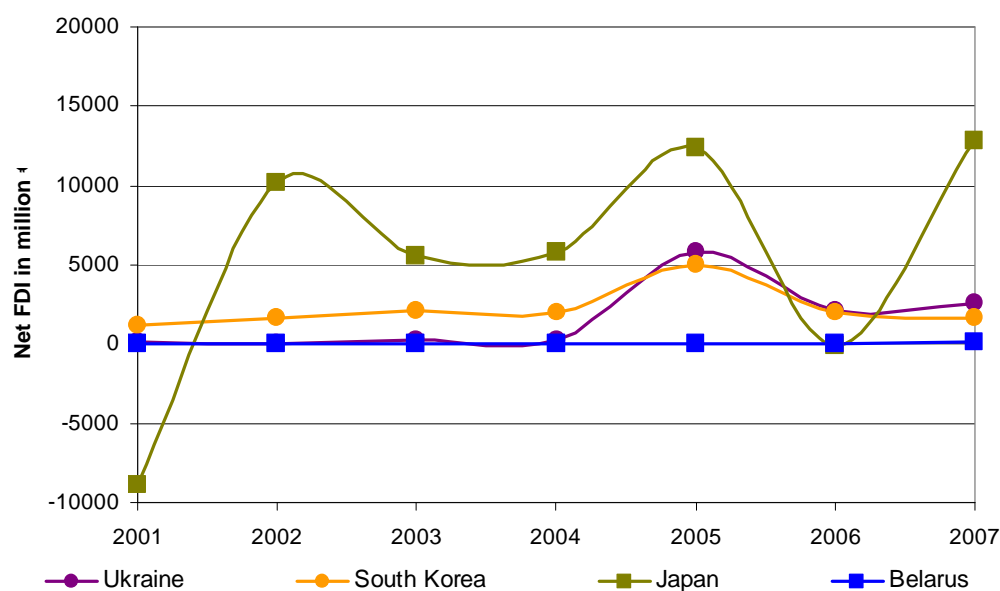
The amount of FDI from Europe to South Korea has been quite stable over the period, varying between 1,100 and 2,100 million € besides from 2005 when it reached almost 5,000 million €. A key reason for the decline after 2005 might be that the government introduced new strict legislation on tax break reductions, a tax probe into foreign capital and new regulations against foreign takeovers.<sup>75</sup>

Finally, FDI to Japan has been very volatile during the seven years. However, recently a number of substantial European investments have been made in Japan within areas such as telecommunications, car manufacturing, retailing and insurance. EU is now the largest investor in Japan, but very large investments and "rescue acquisitions" have made up the majority of funds invested. This explains the volatility of the EU's FDI to Japan and investments by European SMEs are still quite limited.<sup>76</sup>

<sup>75</sup> Industry Canada (2009): International Business Information – South Korea

<sup>76</sup> European Commission Trade – ec.europa.eu/trade

Figure 5.3: EU25's Net FDI  
FDI in Ukraine, South Korea, Japan and Belarus



Source: Oxford Research and Eurostat

The following table 5.1 shows the size of FDI within manufacturing compared to the size of total FDI to a number of the target countries. It is noticeable that the shares of manufacturing FDI to the four BRIC countries are considerably higher than the share for all EU FDI, as well as compared to FDI to the US. Manufacturing FDI is of particular importance in Russia where it makes up more than 50 % of all FDI. It should also be seen that manufacturing FDI in Japan was positive despite the fact that total net FDI was negative.

Table 5.1: Net total FDI and manufacturing FDI, 2006 (million €)

	Total FDI	Manufacturing FDI	Share of manufacturing FDI
Extra EU-25	317,224	59,096	19 %
United States	108,020	12,620	12 %
Russia	10,687	5,936	56 %
China	6,677	2,402	36 %
Brazil	6,476	2,242	35 %
India	2,503	957	38 %
Japan	-56	1,477	-

Source: Eurostat

## Annex – Methodology

Annex 1 explains the proposed methodology of the analysis carried out in the project's cluster B – Collect and analyse data on international trade flows between EU-27 and the target countries and data on the economic development of the target countries.

Three tasks were to be carried out as part of cluster B:

4. Survey of literature
5. Quantitative analysis of trade flows
6. Writing of intermediate report

Task B1 is based on a literature survey of the economic development in the 12 target countries have been carried out based on publications from key international organisations such as OECD, World Bank and EU. This analysis focuses on the current and projected economic situation on the target countries.

This annex will primarily deal with the methodologies associated with task B2. A well-known problematic issue in trade analyses is the relationship between industrial classifications and product classifications. All raw data on imports and exports between countries are following products classifications (e.g. SITC), but most analyses dealing with economic development are based on industrial classifications (e.g. NACE). Naturally, this has created a demand for converting import and export data from product to industrial classifications.

The most extensive database on bilateral trade relations is the OECD's STAN database, which gives provides import and export figures between a number of OECD member and non-member states. Unfortunately, the STAN database does not cover all nations and a number of the 12 target countries are not included. Thus, the STAN database was not suitable for this analysis. Instead, the following methodology has been applied, consisting of four steps:

7. Identification of focus industries
8. Assignment of relevant product groups to the selected industries
9. Data gathering
10. Quantitative analysis

### **Step 1. Identification of focus industries**

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The trade analysis focuses on industries where SMEs constitute more than 50 % of the economic activities. Trade data is not available according to firm size, so the optimal solution is to emphasise the industries where SMEs are of major importance. Therefore, such industries as Tobacco products and Motor vehicles, trailers & semi-trailers are not included in the analysis, as non-SMEs (firms with more than 250 employees) constitute respectively 93.7 % and 87.7 % of the value added in these industries.

Table A.1 gives the industries with the highest share of SME value added in the EU according to the 2-digit NACE codes.

Table A.1: Highly important SME industries with NACE codes	
Sector	SME share of value added
28. Manufacture of fabricated metal products, except machinery and equipment	78,4 %
19. Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear	78,3 %
20. Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	78,1 %
18. Manufacture of wearing apparel; dressing and dyeing of fur	73,3 %
36. Manufacture of furniture; manufacturing n.e.c.	73,0 %
17. Manufacture of textiles	72,3 %
22. Publishing, printing and reproduction of recorded media	59,8 %
25. Manufacture of rubber and plastics products	57,6 %
26. Manufacture of other non-metallic mineral products	53,4 %
33. Manufacture of medical, precision and optical instruments, watches and clocks	51,8 %
29. Manufacture of machinery and equipment n.e.c.	51,2 %

Source: Eurostat (2008): Enterprises by size class – overview of SMEs in the EU

These have been divided into three sector groups that are listed in table A.2:

Table A.2. SME products according to technology level and industry.

Sector	Industries within sector
High technology	Manufacture of medical, precision and optical instruments
Medium technology	Manufacture of machinery and equipment Manufacture of rubber and plastics Manufacture of other non-mineral products Manufacture of fabricated metal products
Low technology	Publishing, printing and reproduction of recorded media Manufacture of wearing apparel Manufacture of furniture Manufacture of textiles Manufacture of wood and products of wood and cork Tanning and dressing of leather

Source: Eurostat

These three SME sector groups make up the focus of the report.

## Step 2. Assignment of relevant product groups to the selected industries

Product groups are assigned to the industries identified in Step 1 according to the SITC product classification at the 3-digit level. It is necessary to apply the 3-digit level (279 categories), as the 2-digit level does not provide a sufficiently detailed level. Many 2-digit product groups contain subdivisions, which are assigned to different industries. Even though this is also the case in some instances at the 3-digit level, then it does not constitute a very limited problem. Thus, it can be concluded that it gives a very detailed and reliable analysis of the European countries' export by assigning the 279 3-digit product codes to industries at a 2-digit NACE level.

The conversion is based on information from RAMON, Eurostat's Metadata Server. RAMON contains a number of conversion tables between different industrial classifications including one between SITC and ISIC (international version of NACE). OECD's STAN Bilateral Trade Database is also based on this conversion table.

Table A.3 gives the relationships between the different industries (light grey) and the product groups (white). Industry numbers are 2-digit codes according to the ISIC REV. 3; product group numbers are 3-digit codes according to the SITC REV. 3.

Table A.3: Industries – product groups	
15. Manufacture of food products and beverages	
011	Meat of bovine animals, fresh, chilled or frozen
012	Other meat and edible meat offal, fresh, chilled or frozen (except meat and meat offal unfit or unsuitable for human consumption)
016	Meat and edible meat offal, salted, in brine, dried or smoked; edible flours and meals of meat or meat offal
017	Meat and edible meat offal, prepared or preserved, n.e.c.
022	Milk and cream and milk products other than butter or cheese
023	Butter and other fats and oils derived from milk
024	Cheese and curd
025	Eggs, birds', and egg yolks, fresh, dried or otherwise preserved, sweetened or not; egg albumin
034	Fish, fresh (live or dead), chilled or frozen
035	Fish, dried, salted or in brine; smoked fish (whether or not cooked before or during the smoking process); flours, meals and pellets of fish, fit for human consumption
036	Crustaceans, molluscs and aquatic invertebrates, whether in shell or not, fresh (live or dead), chilled, frozen, dried, salted or in brine; crustaceans, in shell, cooked by steaming or boiling in water, whether or not chilled, frozen, dried, salted or
037	Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved, n.e.c.
042	Rice
046	Meal and flour of wheat and flour of meslin
047	Other cereal meals and flours
048	Cereal preparations and preparations of flour or starch of fruits or vegetables
056	Vegetables, roots and tubers, prepared or preserved, n.e.c.
058	Fruit, preserved, and fruit preparations (excluding fruit juices)
059	Fruit juices (including grape must) and vegetable juices, unfermented and not containing added spirit, whether or not containing added sugar or other sweetening matter
061	Sugars, molasses and honey

062 Sugar confectionery
071 Coffee and coffee substitutes
072 Cocoa
073 Chocolate and other food preparations containing cocoa, n.e.c.
074 Tea and maté
081 Feeding stuff for animals (not including un-milled cereals)
091 Margarine and shortening
098 Edible products and preparations, n.e.c.
099 Miscellaneous edible products and preparations
111 Non-alcoholic beverages, n.e.c.
112 Alcoholic beverages
211 Hides and skins (except fur skins), raw
411 Animal oils and fats
421 Fixed vegetable fats and oils, "soft", crude, refined or fractionated
422 Fixed vegetable fats and oils, crude, refined or fractionated, other than "soft"
431 Animal or vegetable fats and oils, processed; waxes; inedible mixtures or preparations of animal or vegetable fats or oils, n.e.c.
592 Starches, inulin and wheat gluten; albuminoidal substances; glues
<b>17. Manufacture of textiles</b>
261 Silk
263 Cotton
264 Jute and other textile bast fibres, n.e.c, raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock)
265 Vegetable textile fibres (other than cotton and jute), raw or processed but not spun; waste of these fibres
268 Wool and other animal hair (including wool tops)
651 Textile yarn
652 Cotton fabrics, woven (not including narrow or special fabrics)
653 Fabrics, woven, of man-made textile materials (not including narrow or special fabrics)
654 Other textile fabrics, woven
655 Knitted or crocheted fabrics (including tubular knit fabrics, n.e.c., pile fabrics and openwork fabrics), n.e.c.
656 Tulles, lace, embroidery, ribbons, trimmings and other smallwares
657 Special yarns, special textile fabrics and related products
658 Made-up articles, wholly or chiefly of textile materials, n.e.c.
659 Floor coverings, etc.
<b>18. Manufacture of wearing apparel; dressing and dyeing of fur</b>
613 Fur skins, tanned or dressed (including heads, tails, paws and other pieces or cuttings), un-assembled, or assembled (without the addition of other materials), other than those of heading 848.31
841 Men's or boys' coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2)
842 Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2)
843 Men's or boys' coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, knitted or crocheted (other than those of subgroup 845.2)
844 Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts,



underwear, nightwear and similar articles of textile fabrics, knitted or crocheted (other than those of subgroup 845.2)
845 Articles of apparel, of textile fabrics, whether or not knitted or crocheted, n.e.c.
846 Clothing accessories, of textile fabrics, whether or not knitted or crocheted
848 Articles of apparel and clothing accessories of other than textile fabrics; headgear of all materials
19. Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
611 Lather
612 Manufactures of leather or of composition leather, n.e.c.; saddlery and harness
831 Trunks, suitcases, vanity cases, executive cases, briefcases, school satches, spectacle cases, binocular cases, camera cases, musical instrument cases, gun cases, holsters and similar containers; travelling bags, insulated food or beverages bags, toil
851 Footwear
20. Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
244 Cork, natural, raw and waste (including natural cork in blocks or sheets)
246 Wood in chips or particles and wood waste
248 Wood, simply worked, and railway sleepers of wood
633 Cork manufactures
634 Veneers, plywood, particle board, and other wood, worked, n.e.c.
635 Wood manufactures, n.e.c.
21. Manufacture of paper and paper products
251 Pulp and waste paper
641 Paper and paperboard
642 Paper and paperboard, cut to size or shape, and articles of paper or paperboard
22. Publishing, printing and reproduction of recorded media
892 Printed matter
25. Manufacture of rubber and plastics products
581 Tubes, pipes and hoses, and fittings therefore, of plastics
582 Plates, sheets, film, foil and strip, of plastics
583 Monofilament of which any cross-sectional dimension exceeds 1 mm, rods, sticks and profile shapes, whether or not surface-worked but not otherwise worked, of plastics
621 Materials of rubber (e.g., pastes, plates, sheets, rods, thread, tubes, of rubber)
625 Rubber tyres, interchangeable tyre treads, tyre flaps and inner tubes for wheels of all kinds
629 Articles of rubber, n.e.c.
893 Articles, n.e.c., of plastics
26. Manufacture of other non-metallic mineral products
661 Lime, cement, and fabricated construction materials (except glass and clay materials)
662 Clay construction materials and refractory construction materials
663 Mineral manufactures, n.e.c.
664 Glass
665 Glassware
666 Pottery
28. Manufacture of fabricated metal products, except machinery and equipment
691 Structures and parts of structures, n.e.c., of iron, steel or aluminium
692 Metal containers for storage or transport
693 Wire products (excluding insulated electrical wiring) and fencing grills
694 Nails, screws, nuts, bolts, rivets and the like, of iron, steel, copper or aluminium

695 Tools for use in the hand or in machines
696 Cutlery
697 Household equipment of base metal, n.e.c.
699 Manufactures of base metal, n.e.c.
700 Complete industrial plant appropriate to section 7
711 Steam or other vapour-generating boilers, superheated water boilers, and auxiliary plant for use therewith; parts thereof
811 Prefabricated buildings
<b>29. Manufacture of machinery and equipment n.e.c.</b>
712 Steam turbines and other vapour turbines and parts thereof, n.e.c.
718 Power-generating machinery and parts thereof, n.e.c.
721 Agricultural machinery (excluding tractors) and parts thereof
722 Tractors (other than those of headings 744.14 and 744.15)
723 Civil engineering and contractors' plant and equipment; parts thereof
724 Textile and leather machinery and parts thereof, n.e.c.
725 Paper mill and pulp mill machinery, paper-cutting machines and other machinery for the manufacture of paper articles; parts thereof
726 Printing and bookbinding machinery and parts thereof
727 Food-processing machines (excluding domestic); parts thereof
728 Other machinery and equipment specialized for particular industries; parts thereof, n.e.c.
731 Machine tools working by removing metal or other material
733 Machine tools for working metal, sintered metal carbides or cermets, without removing material
735 Parts, n.e.c., and accessories suitable for use solely or principally with the machines falling within groups 731 and 733 (including work or tool holders, self-opening die-heads, dividing heads and other special attachments for machine tools); tool ho
737 Metalworking machinery (other than machine tools) and parts thereof, n.e.c.
741 Heating and cooling equipment and parts thereof, n.e.c.
742 Pumps for liquids, whether or not fitted with a measuring device; liquid elevators; parts for such pumps and liquid elevators
743 Pumps (other than pumps for liquids), air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; centrifuges; filtering or purifying apparatus; parts thereof
744 Mechanical handling equipment and parts thereof, n.e.c.
745 Non-electrical machinery, tools and mechanical apparatus and parts thereof, n.e.c.
746 Ball- or roller bearings
747 Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves
748 Transmission shafts (including camshafts and crankshafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gearboxes and other speed changers (including torque converters); flywheels and pulleys
749 Non-electric parts and accessories of machinery, n.e.c.
775 Household-type electrical and non-electrical equipment, n.e.c.
812 Sanitary, plumbing and heating fixtures and fittings, n.e.c.
891 Arms and ammunition
<b>31. Manufacture of electrical machinery and apparatus n.e.c.</b>
716 Rotating electric plant and parts thereof, n.e.c.
771 Electric power machinery (other than rotating electric plant of group 716) and parts thereof
772 Electrical apparatus for switching or protecting electrical circuits or for making connections to or in electrical circuits (e.g., switches, relays, fuses, lightning arresters, voltage limiters, surge

suppressors, plugs and sockets, lamp-holders and j
773 Equipment for distributing electricity, n.e.c.
778 Electrical machinery and apparatus, n.e.c.
813 Lighting fixtures and fittings, n.e.c.
<b>33. Manufacture of medical, precision and optical instruments, watches and clocks</b>
774 Electro diagnostic apparatus for medical, surgical, dental or veterinary purposes, and radiological apparatus
871 Optical instruments and apparatus, n.e.c.
872 Instruments and appliances, n.e.c., for medical, surgical, dental or veterinary purposes
873 Meters and counters, n.e.c.
874 Measuring, checking, analysing and controlling instruments and apparatus, n.e.c.
881 Photographic apparatus and equipment, n.e.c.
884 Optical goods, n.e.c.
885 Watches and clocks
<b>36. Manufacture of furniture; manufacturing n.e.c.</b>
269 Worn clothing and other worn textile articles; rags
667 Pearls and precious or semiprecious stones, unworked or worked
821 Furniture and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings
894 Baby carriages, toys, games and sporting goods
895 Office and stationery supplies, n.e.c.
897 Jewellery, goldsmiths' and silversmiths' wares, and other articles of precious or semiprecious materials, n.e.c.
898 Musical instruments and parts and accessories thereof; records, tapes and other sound or similar recordings (excluding goods of groups 763 and 883)
899 Miscellaneous manufactured articles, n.e.c.
961 Coin (other than gold coin), not being legal tender
Source: Oxford Research 2009 on the basis of Eurostat RAMON

### Step 3. Data gathering

Data on European export is retrieved from Eurostat's database of external trade:

- [http://epp.eurostat.ec.europa.eu/portal/page/portal/external\\_trade/data/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/external_trade/data/database)

Oxford Research has developed a database on our own server containing the following variables:

- Export value in Euro
- Exporting country – EU27 as well as each individual country
- Destination country – each of the 12 target countries and the US
- Period – yearly figures from 2000 to 2009 and 2010 figures based on actual data for the first 10 month and extrapolations for the last two month of 2010. Data on European FDI is retrieved from Eurostat's database of economy and finance:
- [http://epp.eurostat.ec.europa.eu/portal/page/portal/national\\_accounts/data/databas](http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data/databas)  
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Unfortunately, the data available concerning FDI is very fragmented. No data on EU's FDI is in this way available for Armenia, Azerbaijan, Georgia and Moldavia. Furthermore, only total FDI figures are available for Belarus, South Korea and Ukraine, and the sector divided figures for the remaining countries are not as detailed as for trade data – for ex-

ample are the three sectors Manufacturing of paper and paper products, Manufacturing of wood and products of wood and cork, and Publishing, printing and reproduction of recorded media included in the same sector; Wood, publishing and printing.

## Step 4. Quantitative analysis

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The quantitative analysis is primarily based upon two ways of synthesising data:

11. Indexed export figures with 2000 as baseline year
12. A sector export index

The sector export index is expressed as follows:

$$SEI = (X_{ij} / X_{it}) / (X_{nj} / X_{nt})$$

where X represents exports, i is a target country, j is an industry (or commodity), t is a set of industries (or commodities) and n is set at world level.

The study focuses on 12 target countries: seven key target markets (Brazil, China, India, Japan, Russia, South Korea and Ukraine) and five other target markets (Armenia, Azerbaijan, Belarus, Georgia and Moldova). The industries are divided into the three sector groups: low-, medium- and high-technology SME sectors.

the total size of exports to the country and the sectors share of total exports to the world.