UNIVERSIDAD DE LEÓN

FACULTAD DE CIENCIAS ECONÓMICAS Y EMPRESARIALES

GRADO DE COMERCIO INTERNACIONAL

Curso 2013-2014

EXPORT PROFILE AND COMMERCIAL SPECIALIZATION OF THE EUROPEAN UNION IN THE CHINESE MARKET. 2008-2012

Perfil exportador y especialización comercial de los países de la Unión Europea en China. 2008-2012

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Universidad de León, a 11 de julio de 2014

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ABSTRACT

In this study, we mainly focused on the trade relationships between each European Member States and China during the 2008-2012 periods. In order to have a general concept of each European country´s commercial specialization and comparative advantage with China, we used four indicators for the calculations of imports and exports data that was collected from DataComex.

The reason we chose China is because the relations of these two countries are getting closer and closer every day. Also the global position of China, with its fast development, is more important than before. It has become the second largest economy in the world and the first one is European Union.

The results of this study show us the principal specialized sectors are raw materials, machinery, chemicals and transport equipment. Then the export advantages are mainly machinery, chemicals and transport equipment. But in some European countries, like Greece and Latvia, it is focused on exportation of crude materials to China. As we believe, in the future, the exports and imports will be more diversified. Services and high-tech products will occupy more value.

RESUMEN DEL TRABAJO

En este estudio, centramos principalmente en las relaciones comerciales entre cada uno los Estados miembros europeos y China durante el período 2008-2012. Con el fin de tener una idea general de cada uno de los países europeos sobre la especialización comercial y sobre la ventaja comparativa de China, hemos utilizado cuatro indicadores para los cálculos de las importaciones y exportaciones de datos que se recogen de DataComex.

La razón de elegir China se debe a que las relaciones entre estos dos países son cada vez más intensas. Además la posición global de China, con su rapidez de desarrollo, es más importante que antes. Se ha convertido en la segunda economía más grande del mundo y el primero es la Unión Europea.

Los resultados de nuestro estudio muestran que los principales sectores especializados son las materias primas, maquinaria, productos químicos y equipos de transporte. A continuación, las ventajas de exportación son principalmente maquinaria, productos químicos y equipo de transporte. Pero en algunos países europeos, como Grecia y Letonia, se centra en la exportación de materiales crudos a China. Como creemos en el futuro, las exportaciones y las importaciones serán más diversificadas. Servicios y productos de alta tecnología va a ocupar más valores.

CHAPTER 1-INTRODUCTION

China is the fourth largest country in the world (United Nations Statistics Division, 2014), which has a population of 1,357 million (World Data Bank, 2014). In the modern era, China´s influence in the world economy was minimal until the late 1980s. At that time, economic reforms initiated after 1978 began to generate significant and steady growth in investment, consumption and standards of living. Reforms began with the phasing out of collectivized agriculture, and expanded to include the gradual liberalization of prices, fiscal decentralization, increased autonomy for state enterprises, creation of a diversified banking system, development of stock markets, rapid growth of the private sector, and opening to foreign trade and investment.

The quick development of Chinese economy has made itself became the world´s second largest economy. The GDP of China from 2008 to 2012 has grown from 31,404.5 billion yuan to 51,932.2 billion yuan (Trending economics, 2014). China now participates extensively in the world market and private sector companies play a major role in the economy. In 2010, China became the world´s largest exporter. According to National Bureau of Statistics of China, the total value of imports and exports in 2012 reached 3,866.8 billion US dollars, up by 6.2 percent over the previous year. Of this total, the value of goods export was 2,048.9 billion US dollars, increased by 7.9 percent, and the value of goods import was 1,817.8 billion US dollars, up by 4.3 percent. The balance of imports and exports was 231.1 billion US dollars, an increase of 76.2 billion US dollars over the previous year.

The rapid growth of Chinese market let itself become a really popular market in the world. Therefore, countries who want to maintain their position in the future have to increase its exports in the Chinese market.

According to European Commission, the European Union and China are two of the biggest traders in the world. Nowadays, China has become the EU´s second trading partner behind the United Starts of America and the EU is China´s biggest trading partner (European Commission, 05/05/2014). At the 16th EU-China Summit held on 21 of November of 2013 both sides announced to the launch of negotiations of a comprehensive EU-China Investment Agreement. The Agreement will provide for progressive liberalization of investment and the elimination of restrictions for investors

to each other´s market. It will provide a simpler and more secure legal framework to investors of both sides by securing predictable long-term access to EU and Chinese markets respectively and providing for strong protection to investors and their investments. In the future, the trade between EU and China will be one of the most important trading relations in the world.

CHAPTER 2-OBJECT OF THE STUDY

This study provides an analysis of all the 67 sectors between the trading relation of each EU Member States and China in recent years, trying to get a few conclusions which allow us to understand the evolution of these sectors and their future tendencies. Finally, with these conclusions, we could get a comprehensive analysis of the advantages and disadvantages of these countries´ structural economies.

We will collect our data from the Spanish Ministry of Foreign Trade and we will use four different indicators for helping us to provide an overview of developments in the 67 sectors between 2008 and 2012.

The reason why we choose the 2008-2012 periods is because they coincide with the beginning and the progress of the world financial crisis that has affected to the majority of the European countries.

Our interest is to see how each European Member States has acted in the Chinese market under the pressure of the contraction of their domestic demands.

CHAPTER 3-METHODOLOGY

The methodology that we will use for the definition of the term "export profiles" is in two analytical perspectives: export specialization and comparative advantage. Among the wide range of indices of these two perspectives proposed in literature, we will use four indicators that are frequently used by researchers and economic analysts:

- Index of Export Specialization
- Index of dependence
- Index of Revealed Comparative Advantage
- Index of Contribution to the Trade Balance

Throughout this study, we have used numerous materials to support our analyses. Obviously any research on the international trade needs exporting and importing data of the analyzed country in its international markets. Within all the available sources that can be accessed online and published publicly we have chosen one of the most complete and reliable data sources in the European Union: DataComex. This data source about foreign trades is arranged by the Spanish Ministry of Foreign Trade and it has obtained all the necessary data that we are going to use in this study.

"DataComex is a base of multidimensional data of the European Union´s international trade with specification of each European Member States, partner countries and their groups, classification of products or merchandise, exported or imported flow, commercial type, periodicity and variables." (Spanish Ministry of Foreign Trade, s.f.)

DataUE-Anual provides three different data of China which are Mainland China, Hong Kong and China-China-Macau. In this study, we will use only the data of Mainland China.

A nomenclature is a descriptive, ordered enumeration and consistent with merchandise according to an integrated, comprehensive system of classification. The purpose of nomenclatures is often used as statistics and tariffs. The efficacy of the nomenclatures is that each product can only be found in one place.

Every government has the power of regulating their international trading volumes, either to prevent from the undesired products entering the border or to encourage the importation of some desired products from specific countries. Meanwhile, it tries to keep a trading balance. It is necessary that both government and companies accomplish an accurate and complete nomenclature of products for facilitating their foreign trades.

The HS Nomenclatures is an international multipurpose nomenclature which was elaborated under the auspices of the World Customs Organization (WCO). At present there are 138 Contracting Parties to this Convention, however, it is applied by more than 200 administrations worldwide, mostly to set up their national customs tariff and for the collection of economic statistical data. The European Union and its member states together represent a block of 28 Contracting Parties to the aforementioned Convention. The HS Nomenclature comprises about 5,000 commodity groups which are identified by a 6-digit code and arranged according to a legal and logical structure based on fixed rules.

The Combined Nomenclature of the European Union (EU) integrates the HS Nomenclature and comprises additional 8-digit subdivisions and legal notes specifically created to address the needs of the Community. The Combined Nomenclature (CN) also includes preliminary provisions, additional section or chapter notes and footnotes relating to CN subdivisions. Each CN subdivision has an eight digit code number, the CN code, followed by a description.

As for our study, the SITC (Standard International Trade Classification) will be the type of the data. The SITC is a classification of goods used to classify the exports and imports of a country to enable comparing different countries and years. The classification system is maintained by the United Nations. The SITC classification is

currently at revision four, which was promulgated in 2006. The SITC is recommended only for analytical purposes – trade statistics are recommended to be collected and compiled in the Harmonized System instead.

We use SITC because it is the nomenclature that often used for the sectoral studes in the economic research. Regarding to the sectoral level we have chosen 2 digit codes of SITC that allows us to deal with 67 different sectors. SITC Rev.3 is better for our data collection, because the research will be mainly focused in the 2008-2012 period and revision 3 has a complete data than de revision 4. Annex 1 is a full list of all the product categories.

To carry out the export profile and comparative advantages of each EU Member States in the Chinese market, our study consists of some clearly different parts. After a brief explanation of the evolution of Chinese international trade in the 21th century, first we will perform an analysis of the specialization and dependence of all the EU´s countries in China using the first two measures that we have mentioned in the first paragraph of this chapter, in order to get a general idea of characteristics of each market. Then we will use the last two indicators to find their comparative advantages during the 2008-2012 periods. Through these two indicators, we could also find the structural characteristics of each country´s economy. To complete this research study, we will end this analysis with the main conclusion obtained after the research study and data collection regarding to the exports and imports of each European countries to the whole world and to China during 2008-2012.

CHAPTER 4-EVOLUTION OF CHINESE INTERNATIONAL TRADE IN THE 21TH CENTURY

In 2001 China became the 143rd member of WTO, which has an important meaning to China´s economy. For China, WTO membership has positive significance of the following areas:

- Faster and better integrate into the international economic. World economic integration, globalization is the main trend of world economic development. Joining this trend, China can fully share the benefits of the international division of labor, economic and technological at the same with the world advanced forward. (Global Info, 2006)

- Absorb more foreign investment. After China´s accession of WTO, government opens many promising industries to foreign investment, and provides national treatment to foreign invested enterprises which will make a lot of foreign capitals flow into China. (Global Info, 2006)

- Expand exporting. China´s international trade environment is improved and it improves the development of international trade. (Global Info, 2006)

- Arouse Chinese companies´ sense of competition. There will be more foreign multinational companies enter the China market, which will enhance domestic economy industry´s competition. (Global Info, 2006)

Following figure is the GDP of China from 2002 to 2012 (billions of U.S. dollars):

Figure 4. 1 China GDP

The figure 3.1 shows the fast growing speed of China´s GDP from 2002 to 2012. In this ten year China´s GDP has expanded from 1320 billion of U.S. dollars to 7320 billion of U.S. dollars. The main reason is the participation of WTO which helps China adapting quickly to the world trading stage.

Figure 4. 2 China, Trade with world

China, Trade with World

Total Goods: Trade flows and balance							Figure 3.2	Source Eurostat IMF	
Period	Imports		Exports		Balance		Total trade		
	Value	Growth*	Value	Growth*	Value	Growth*	Value	Growth*	
	(Mio €)	(%)	(Mio €)	(%)	(Mio €)	(%)	(Mio €)	(%)	
Annual data									
2002	312,437		344,490		32,054		656,927		
2003	364,954	16.8	387,527	12.5	22,573	-29.6	752,481	14.6	
2004	450,849	23.5	477,246	23.2	26,397	16.9	928,095	23.3	
2005	530,680	17.7	612,769	28.4	82,089	211.0	1,143,449	23.2	
2006	630,609	18.8	771,917	26.0	141,308	72.1	1,402,526	22.7	
2007	697,746	10.7	888,836	15.2	191,090	35.2	1,586,582	13.1	
2008	769,595	10.3	971,485	9.3	201,890	5.7	1,741,080	9.7	
2009	719,738	-6.5	861,808	-11.3	142,071	-29.6	1,581,546	-9.2	
2010	1,051,452	46.1	1,190,646	38.2	139,194	-2.0	2,242,099	41.8	
2011	1,251,027	19.0	1,364,425	14.6	113,398	-18.5	2,615,453	16.7	
2012	1,414,493	13.1	1,595,649	17.0	181,157	59.8	3,010,142	15.1	

Figure 4.2 is the trade flows and balance of China´s trade with World during the 2002-2012 periods. Either imports or exports had a high percent of average growth rate from 2002 to 2012. Even though in 2009 the growth rate bottomed out due to the effect of world financial crisis that slowed down the real global output growth, but this situation didn´t last for a long time. Until 2012, the total value of imports and exports reached to 3,010,142 million euros and the trade balance was 181.157 million euros. Of this total, the value of exportation was 1,595,649 million euros which increased 17% comparing to the last year, and the value of importation was 1,414,493 million euros, up by 13.1%.

According to WTO, the decrease in 2009 was the first decline in total world production since the 1930s and its impact was magnified in trade. Not even China, with its dynamic economy, can insulate itself from global downturn when most of its main trading partners were in recession. However, China´s accession to WTO helps China to expand exporting and importing. As a result, it leads a rapid growth of Chinese economy in the 21th century. Nowadays, China has become the first in exportation and the second in importation. (Geohive, 2014)

Figure 4. 3Top trading partners 2012 of China

Total Goods: Top trading partners 2012 of China — Figure 3.3 — Source Eurostat IMF

	Imports				Exports				Total trade		
	Partner	Value	Share in World		Partner	Value	Share in World		Partner	Value	Share in World
		(Mio €)	(%)			(Mio €)	(%)			(Mio €)	(%)
	World	1,414,493	100.0		World	1,595,649	100.0		World	3,010,142	100.0
1	European Union ...	165,445	11.7	1	USA	274,393	17.2	1	European Union ...	426,689	14.2
2	Japan	138,330	9.8	2	European Union ...	261,244	16.4	2	USA	374,516	12.4
3	South Korea	129,662	9.2	3	Hong Kong	251,910	15.8	3	Hong Kong	265,885	8.8
4	USA	100,123	7.1	4	Japan	117,924	7.4	4	Japan	256,255	8.5
5	Australia	61,171	4.3	5	South Korea	68,218	4.3	5	South Korea	197,880	6.6
6	Malaysia	45,335	3.2	6	India	37,162	2.3	6	Australia	90,562	3.0
7	Saudi Arabia	42,765	3.0	7	Russia	34,304	2.2	7	Malaysia	73,764	2.5
8	Brazil	40,520	2.9	8	Singapore	31,383	2.0	8	Russia	68,513	2.3
9	South Africa	34,726	2.5	9	Australia	29,391	1.8	9	Brazil	66,535	2.2
10	Russia	34,209	2.4	10	Malaysia	28,429	1.8	10	Saudi Arabia	57,127	1.9
1	European Union ...	165,445	11.7	2	European Union ...	261,244	16.4	1	European Union ...	426,689	14.2

EU-China trade has increased dramatically in recent years. On the one hand, the European Union has become China´s biggest source of imports and second biggest source of exports. China´s top total trade partner was European Union in 2012. All of the relative data, we could see clearly in the figure 3.3.

Figure 4. 4 Top trading partners 2013 of European Union

Total Goods: Top trading partners 2013 of European Union — Figure 3.4 — Source Eurostat Comext - Statistical regime 4

	Imports				Exports				Total trade		
	Partner	Value	Share in Extra-EU		Partner	Value	Share in Extra-EU		Partner	Value	Share in Extra-EU
		(Mio €)	(%)			(Mio €)	(%)			(Mio €)	(%)
	World	1,682,390	100.0		World	1,737,022	100.0		World	3,419,412	100.0
1	China	280,055	16.6	1	USA	288,239	16.6	1	USA	484,228	14.2
2	Russia	206,478	12.3	2	Switzerland	169,591	9.8	2	China	428,324	12.5
3	USA	195,989	11.6	3	China	148,269	8.5	3	Russia	326,253	9.5
4	Switzerland	94,266	5.6	4	Russia	119,775	6.9	4	Switzerland	263,857	7.7
5	Norway	90,008	5.4	5	Turkey	77,750	4.5	5	Norway	140,187	4.1
6	Japan	56,530	3.4	6	Japan	54,040	3.1	6	Turkey	128,133	3.7
7	Turkey	50,383	3.0	7	Norway	50,178	2.9	7	Japan	110,570	3.2
8	India	36,799	2.2	8	U.A.Emirates	44,655	2.6	8	South Korea	75,810	2.2
9	South Korea	35,840	2.1	9	Brazil	40,057	2.3	9	Brazil	73,085	2.1
1	China	280,055	16.6	3	China	148,269	8.5	2	China	428,324	12.5

On the other hand, through the figure 3.4, China was the EU´s biggest source of imports and third biggest source of exports in 2012. European Union´s second total trade partner was china and has also become one if the EU´s fastest growing exporting markets.

The importance of EU-China trade cannot be ignored, not only because China is one of the major exporting and importing market, but also because of the EU is one of the most attracting markets:

- The EU is the largest economy in the world. Although growth is projected to be slow, the EU remains the largest economy in the world with a GDP per head of €25 000 for its 500 million consumers.
- The EU is the world's largest trading block. The EU is the world's largest trader of manufactured goods and services.
- The EU ranks first in both inbound and outbound international investments.
- The EU is the top trading partner for 80 countries. By comparison the US is the top trading partner for a little over 20 countries.
- The EU is the most open to developing countries. Fuels excluded, the EU imports more from developing countries than the USA, Canada, Japan and China put together.
- The EU benefits from being one of the most open economies in the world and remains committed to free trade. For example, the average applied tariff for goods imported into the EU is very low. More than 70% of imports enter the EU at zero or reduced tariffs.

China, as a new major global trading partner, is expanding with an amazing spend of growth. The demand of commodities in the Chinese market will be continuously growing in the future. As the world´s largest population, the demand force of Chinese market cannot be easily ignored. With the development of China, Chinese people will have more desire and more capacity of buying importing products. Meanwhile, the EU is the largest economy in the world and the largest trading block. The EU is the first importing partner and second exporting partner to China. In the future, the Chinese and European trade relations will be closer than ever.

CHAPTER 5 - EXPORT SPECIALIZATION OF 27 EUROPEAN COUNTRIES IN CHINA

In this chapter, we are going to use two indices: Index of Specialization and Index of Dependence, in order to get a general idea of each EU Member States' strong and weak sectors in their trades with China during 2008-2012.

Each country will be analyzed individually with two figures of those two indices and in the end of this chapter we will have a conclusion about the specialized and dependent sectors of each EU Member States.

Specialization identifies sectors with exports capacity, while dependence indicates sectors of dominant imports. In another word, they can be expressed as strengths and weaknesses of a country´s economy in the competition with other countries in the world.

Furthermore, Index of Specialization gives a global vision of the country´s structural changes during a period of time. Therefore, they are calculated with two different periods.

There are many ways of measuring specialization and dependence. Among them, we choose the following ones:

Index of Export Specialization: The export specialization (ES) index is a slightly modified revealed comparative advantage (RCA) index in which the denominator is usually measured by specific markets or partners. In this chapter, this index is used to measure each European Union country's trade specialization with China comparing its trade with the world.

$$ES_{iE} = \frac{X_{iCH} / \sum_i X_{CH}}{X_{iWorld} / \sum_i X_{World}}$$

CH means China, World means World, i means sector (Divisions SITC)

The higher is this index, the greater degree of specialization is this European Union´s country in the area of its trade with China comparing its trade with the world in the analyzed sector.

$ES_{iE} > 1$ indicates that the country specializes in the exports of the sector i from this country to China in relation with the world. (c)

$ES_{iE} < 1$ indicates that the exports of the sector i to China in this country are lower than the exports to the world. (c)

$ES_{iE} = 1$ indicates that there is no specialization in the exports of the sector i from this country to China and the this country is analyzed as a comparative reference.

Index of Dependence: dependency index is where we put the imports instead of exports.

$$DI_{iE} = \frac{M_{iCH}/\sum_i M_{CH}}{M_{iWorld}/\sum_i M_{World}}$$

CH means China, World means world, i means sectors en group of SITC.

This whole chapter will be divided into 28 sections that are 27 European Member States plus European Union as a vision of a country.

The annex 2 is tables of specialization and dependence of the entire sectors of each country regarding to the trade with China during 2008-2012. All the red numbers are higher than 1 which means that this sector is specialized or depended comparing with the whole world.

5.1 EUROPEAN UNION

Figure 5.1 Index of Export Specialization and Index of Dependence of EU
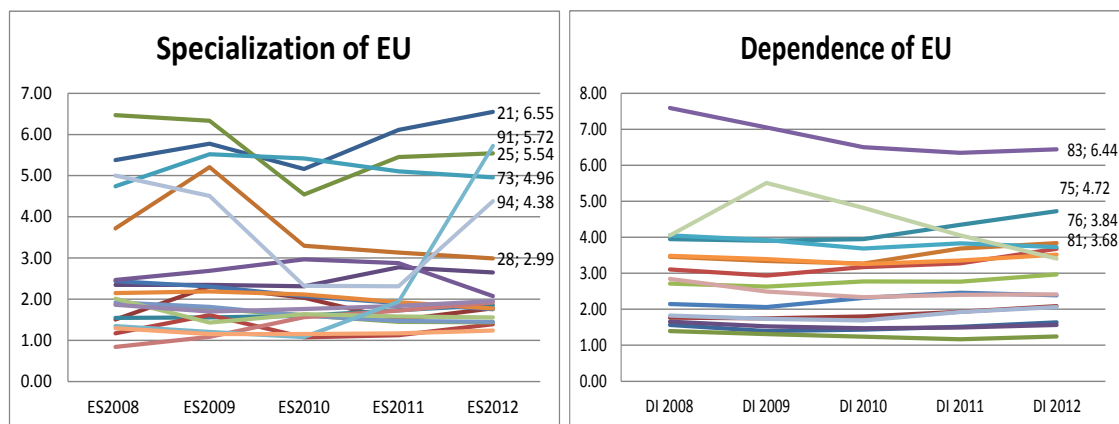
Source: self-elaboration data from Datacomex

The figure shows the specialized sectors of EU during 2008-2012. Among them, the highest ratios are: "(21) Hides" "(25) Pulp and waste paper" "(73) Metal working machinery". "(91) Postal packages not classified according to kind" has increased to 5.72 in 2012. "(94) Complete industrial plant not elsewhere specified" was really unstable during these five years. "(28) Metalliferous ores and metal scrap" reached its peak in the year 2009 but later it started to drop until 2.99 in the year 2012. Unlike the specialization, the dependence of EU was stably increasing during the five year. The most dependent sectors are "(83) Travel goods" "(75) Office machines and automatic data-processing machines" "(84) Articles of apparel and clothing accessories" and "(85) Footwear". Besides, there is only one sector "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" that stopped rising and started falling since 2009.

5.2 FRANCE

Figure 5.2 Index of Export Specialization and Index of Dependence of France
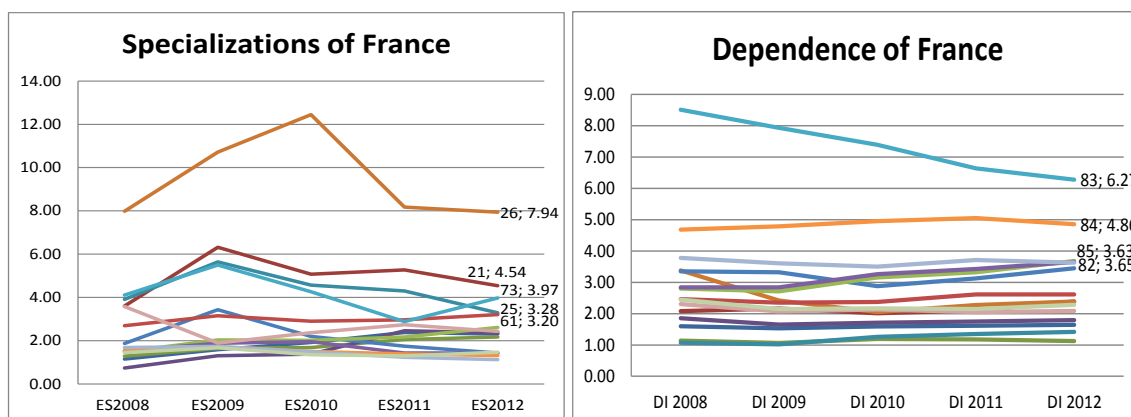
Source: self-elaboration data from Datacomex

The result of dependence is more stable than the export specialization. The highest ratio of specialization is "(26) Textile fibers (other than wool tops)" which has reached to its peak point in the year 2010. The rest important sectors are "(21) Hides" "(73) Metal working machinery" "(25) Pulp and waste paper" and "(61) Leather". The superior importing sectors are "(83) Travel goods" "(84) Articles of apparel and clothing accessories" "(85) Footwear" and "(82) Furniture, bedding, mattresses, mattress supports, cushions".

5.3 BELGIUM

Figure 5.3 Index of Export Specialization and Index of Dependence of Belgium
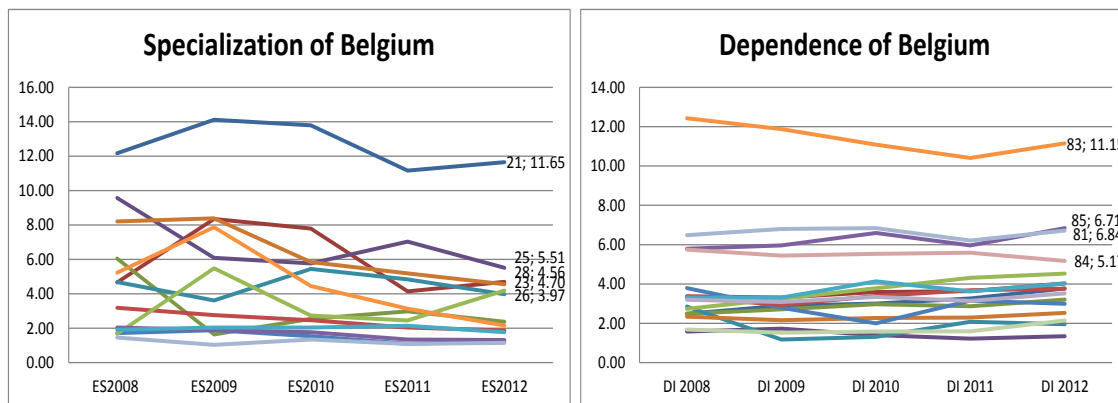
Source: self-elaboration data from Datacomex

The specialization of Belgium changed rapidly during 2008-2012. The highest ratio is "(21) Hides" which has reached to 11.65 in the year 2012. The rest of the specialized sectors are below 10. Among them, "(25) Pulp and waste paper" declined in the year 2009 but then it went up until 2011 and dropped to 5.51 in 2012. "(28) Metalliferous ores and metal scrap" "(23) Crude rubber (including synthetic and reclaimed)" and "(26) Textile fibers (other than wool tops)" got into the top five highest ratios in 2012. All the ratios above are belong to the same level of trade classification and thence Belgium specializes in the sectors of crude materials in the trade with China. On the other side, the dependence of Belgium remained steady in these five years. The top four highest ratios are "(83) Travel goods" "(85) Footwear" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" and "(84) Articles of apparel and clothing accessories", which show the major dependent products from China are miscellaneous manufactured articles.

5.4 LUXEMBOURG

Figure 5.4 Index of Export Specialization and Index of Dependence of Luxembourg
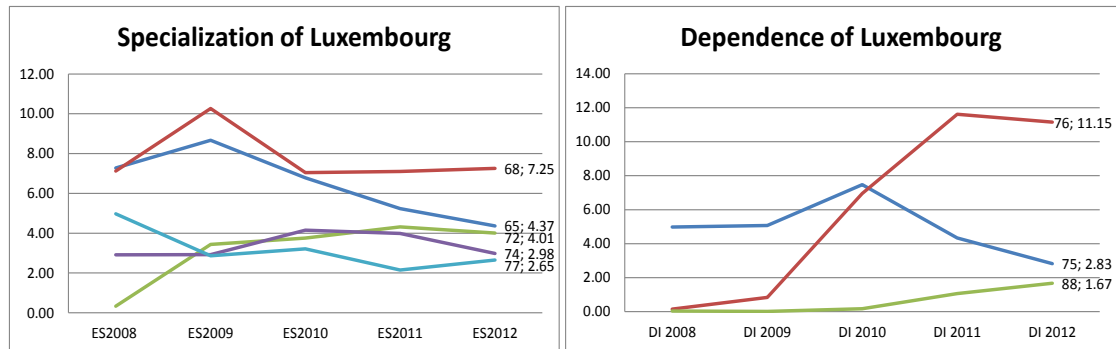
Source: self-elaboration data from Datacomex

Comparing to the other EU Member States, we could say that Luxembourg doesn't have many specialized sectors. Its specializations are "(68) Non-ferrous metals" "(65) Textile tarn" "(72) Machinery specialized for particular industries" "(74) general industry mach.+equipment" and "(77) Electrical machinery". Luxembourg´s dependences varied during the five years and they are "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(75) Office machines and automatic data-processing machines" and "(88) Photographic apparatus".

5.5 NETHERLANDS

Figure 5.5 Index of Export Specialization and Index of Dependence of Netherlands
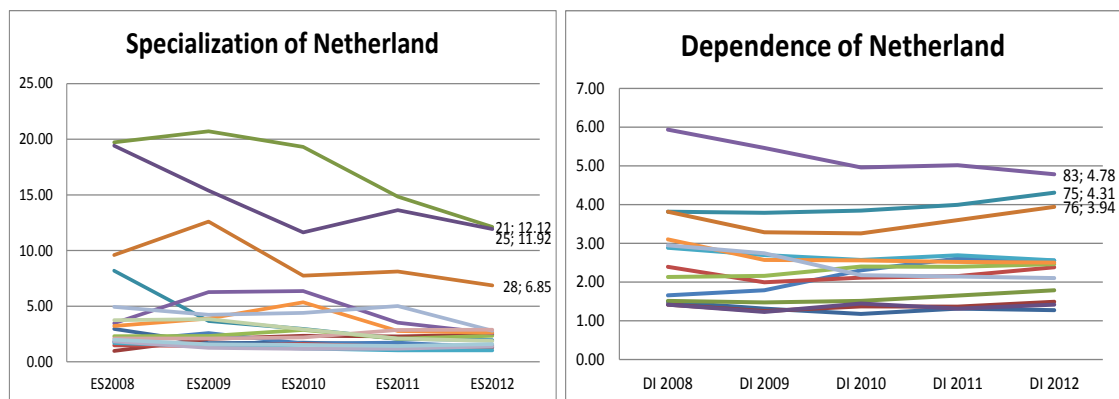
Source: self-elaboration data from Datacomex

Even though the specializations of Netherland were quite strong, but the specialized sectors in the trade with China were decreasing every year in the period 2008-2012. "(21) Hides" fell to 12.12 in 2012 comparing to its top ratio 20.71 in 2010; "(25) Pulp and waste paper" dropped to 11.92 in 2012; "(28) Metalliferous ores and metal scrap" declined to 6.85 in 2012. However, the dependence of Netherland kept quite stable in these five years. The most important dependent sectors are "(83) Travel goods" "(75) Office machines and automatic data-processing machines" and "(76) Telecommunic. + sound recording + reprod. apparatus + equipm."

5.6 GERMANY

Figure 5.6 Index of Export Specialization and Index of Dependence of Germany
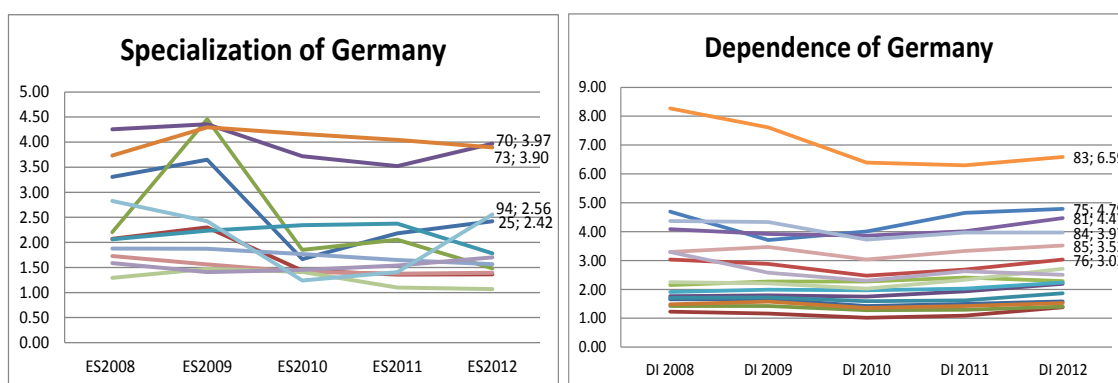
Source: self-elaboration data from Datacomex

Most of the specialized sectors stabilized in 2008-2012. The leading specializations are "(70) Complete industrial plant appropriate to section 7" "(73) Metal working machinery" "(94) Complete industrial plant not elsewhere specified" and "(25) Pulp and waste paper". The Dependence stayed stably in this period. The outstanding dependences are "(83) Travel goods" "(75) Office machines and automatic data-processing machines" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" The majorities are manufacturing.

5.7 ITALY

Figure 5.7 Index of Export Specialization and Index of Dependence of Italy
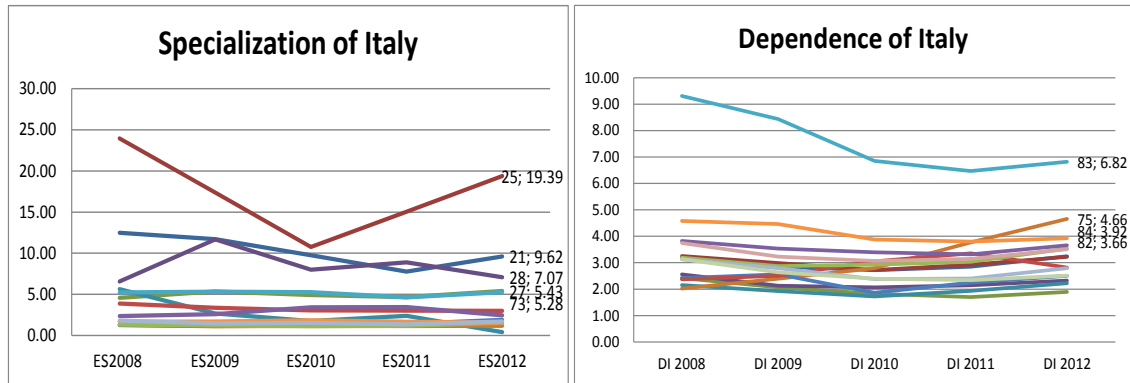
Source: self-elaboration data from Datacomex

The important specializations are "(25) Pulp and waste paper" "(21) Hides" "(28) Metalliferous ores and metal scrap" "(27) Crude fertilizers + minerals (excl. coal)" and "(73) Metal working machinery". Although sector of pulp and waste paper has the highest ratio in these five years, but it bottomed out in 2010. The main dependences are "(83) Travel goods" "(75) Office machines and automatic data-processing machines" "(84) Articles of apparel and clothing accessories" and "(82) Furniture, bedding, mattresses, mattress supports, cushions".

5.8 UNITED KINGDOM

Figure 5.8 Index of Export Specialization and Index of Dependence of United Kingdom
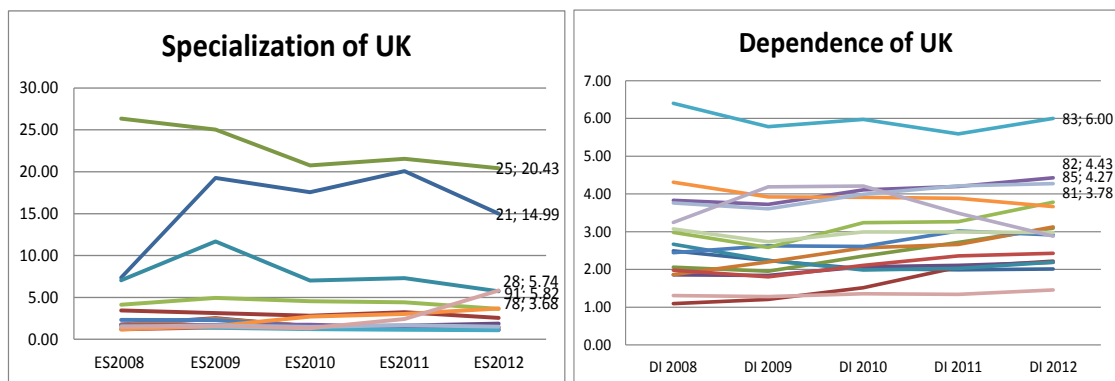
Source: self-elaboration data from Datacomex

The most important specialized sectors of UK are "(25) Pulp and waste paper" "(21) Hides" "(28) Metalliferous ores and metal scrap" "(91) Postal packages not classified according to kind" and "(78) Road vehicles (including air-cushion vehicles)". Through the figure we could see that UK not only has strong competitiveness of crude material but also has strong power of its vehicles. The major dependent sectors are "(83) Travel goods" "(82) Furniture, bedding, mattresses, mattress supports, cushions" "(85) Footwear" and "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" that are all belong to manufacturing industries.

5.9 IRELAND

Figure 5.9 Index of Export Specialization and Index of Dependence of Ireland
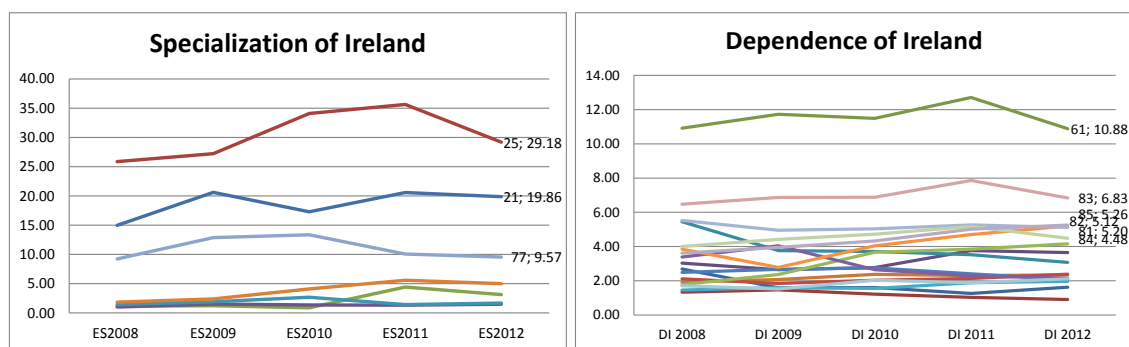
Source: self-elaboration data from Datacomex

There are fewer specializations of Ireland than dependences. The top 3 strongest sectors are "(25) Pulp and waste paper" "(21) Hides" and "(77) Electrical machinery". On the other side, manufacturing is the main dependence of Ireland and the highest ratio is "(61) Leather". The following sectors are "(83) Travel goods" "(85) Footwear" "(82) Furniture, bedding, mattresses, mattress supports, cushions" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" and "(84) Articles of apparel and clothing accessories".

5.10 DENMARK

Figure 5.10 Index of Export Specialization and Index of Dependence of Denmark
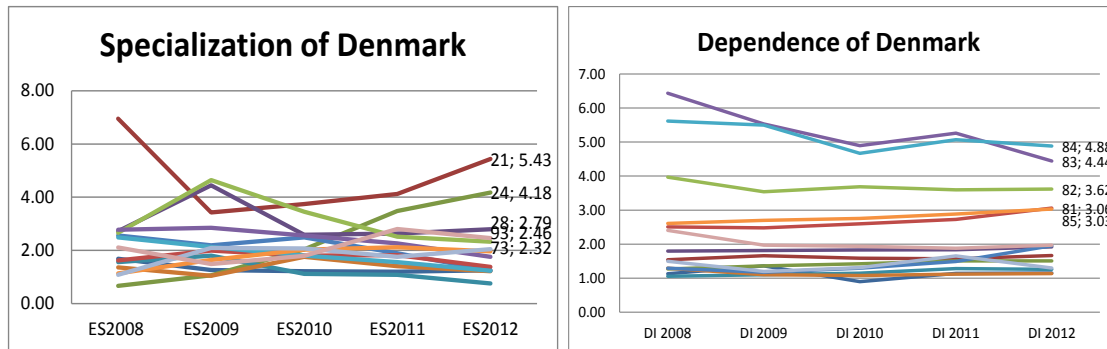
Source: self-elaboration data from Datacomex

The figure shows all the specialized sectors of Denmark. Among them, the major sectors are "(21) Hides" "(24) Cork and wood" "(28) Metalliferous ores and metal scrap" "(93) Special transact. and commodit. not classified according to kind" and "(73) Metal working machinery". Although sector of hides decreased its power of specialization in 2009 but since then it started to progress until it reached to 5.43 in 2012 which is the highest ratio among all the specializations. The majority of dependent sectors remained stable in these five years, except "(83) Travel goods" fell to 4.44 in the year 2012. The top dependent sectors are all miscellaneous manufactured articles, such as "(84) Articles of apparel and clothing accessories" "(82) Furniture, bedding, mattresses, mattress supports, cushions" "(81) Furniture, bedding, mattresses, mattress supports, cushions" and "(85) Footwear".

5.11 GREECE

Figure 5.11 Index of Export Specialization and Index of Dependence of Greece
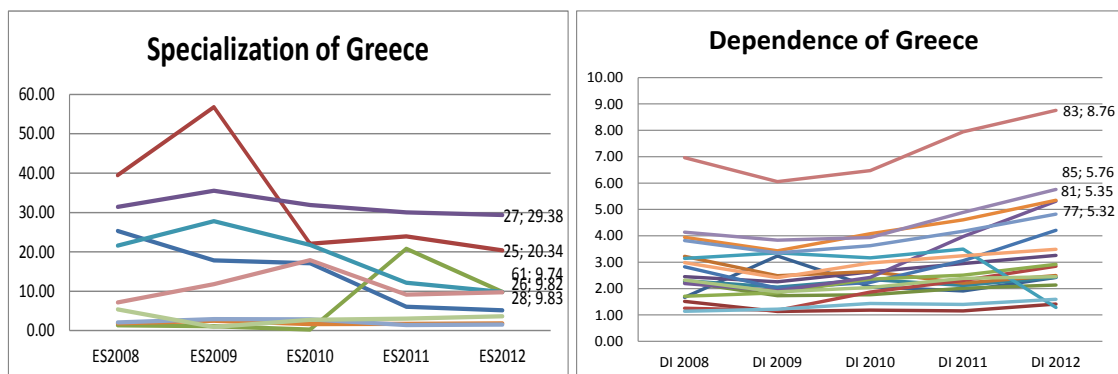
Source: self-elaboration data from Datacomex

As we can see from the figures above, the specializations are mainly focused on crude materials and the dependences are mainly concentrated on the manufactured articles. Sector of "(25) Pulp and waste paper" appeared a strong shock in 2009 and it started to fall until 20.34 in 2012. The other advantage sectors are "(27) Crude fertilizers + minerals (excl. coal)" "(61) Leather" "(26) Textile fibers (other than wool tops)" "(28) Metalliferous ores and metal scrap". The weakest sectors are "(83) Travel goods" "(85) Footwear" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" and "(77) Electrical machinery". Ratio of travel goods is the highest among all the disadvantage ratios.

5.12 PORTUGAL

Figure 5.12 Index of Export Specialization and Index of Dependence of Portugal
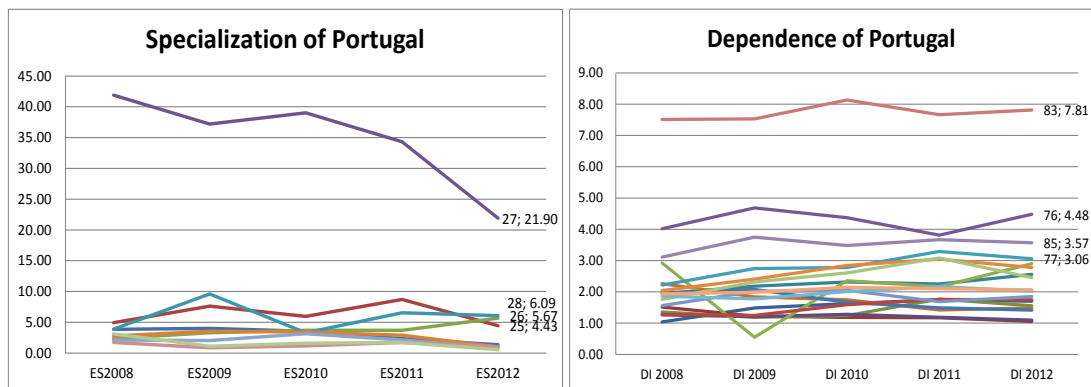
Source: self-elaboration data from Datacomex

The ratio of specialized sector "(27) Crude fertilizers + minerals (excl. coal)" reduced quite a lot during 2008-2012, but it still kept its dominant position comparing to all the other specialized sectors. The rest of leading advantage sectors are "(28) Metalliferous ores and metal scrap" "(26) Textile fibers (other than wool tops)" and "(25) Pulp and waste paper". All the dominant exports are crude materials. About the dependence of Portugal, sector of "(83) Travel goods" is the highest ratio which has reached to 7.81 in the year 2012. The following ratios are "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(85) Footwear" and "(77) Electrical machinery". These importing sectors had an upward tendency during 2008-2012.

5.13 SPAIN

Figure 5.13 Index of Export Specialization and Index of Dependence of Spain
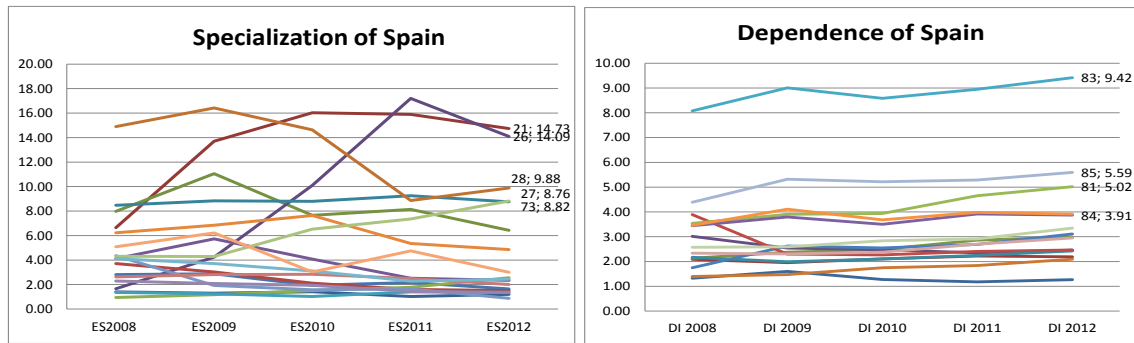
Source: self-elaboration data from Datacomex

There are three ratios that increased rapidly from 2008 to 2012, they are "(21) Hides" "(26) Textile fibers (other than wool tops)" and "(73) Metal working machinery". The sector "(28) Metalliferous ores and metal scrap" has slumped continuously in these five years. At the same time, sector "(27) Crude fertilizers + minerals (excl. coal)" remained steady. Relatively, those dependent sectors were quite stable and the most important sectors are "(83) Travel goods" "(85) Footwear" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" and "(84) Articles of apparel and clothing accessories".

5.14 SWEDEN

Figure 5.14 Index of Export Specialization and Index of Dependence of Sweden
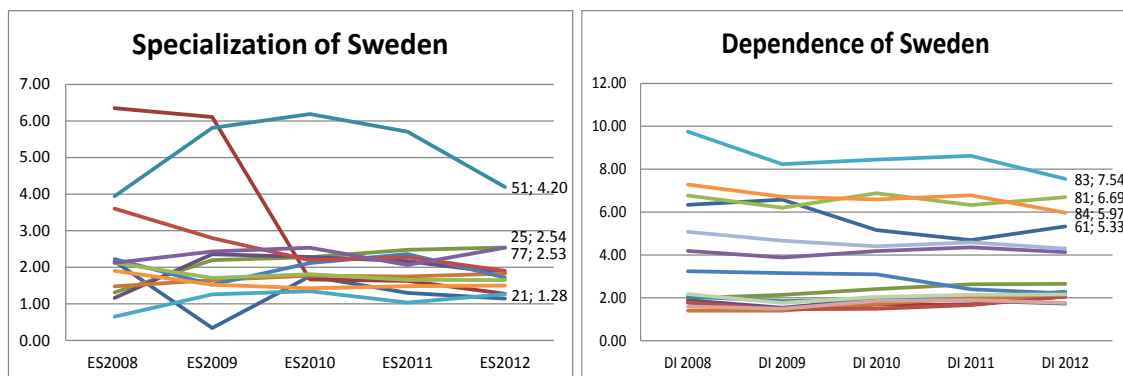
Source: self-elaboration data from Datacomex

The top 3 highest ratios of export specialization of Sweden are "(51) Organic chemicals" "(25) Pulp and waste paper" "(77) Electrical machinery". There is one ratio that fell tremendously during the five years, it is the sector "(21) Hides". China, on the other hand, kept its advantages of manufacturing. Its leading advantage sectors in the trade with Sweden are "(83) Travel goods" "(prefabricated buildings; sanitary, plumbing, heating and lighting" "(84) Articles of apparel and clothing accessories" and "(61) Leather".

5.15 FINLAND

Figure 5.15 Index of Export Specialization and Index of Dependence of Finland
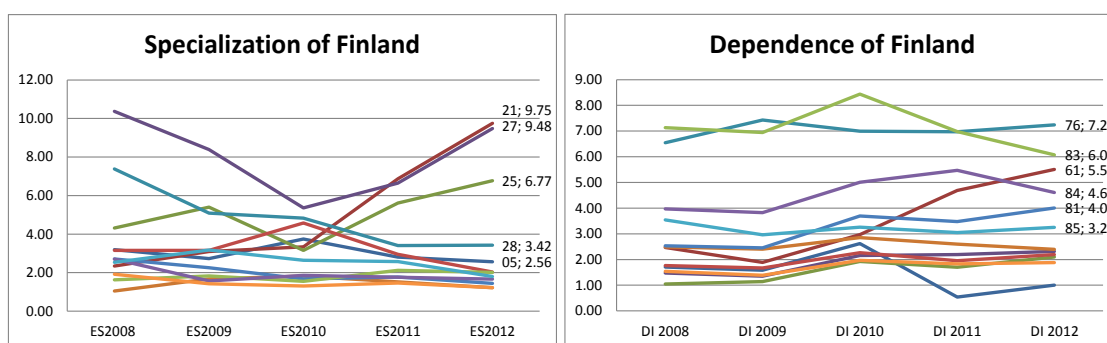
Source: self-elaboration data from Datacomex

About the export specializations of Finland, there are mainly three dominant sectors which are "(21) Hides" "(27) Crude fertilizers + minerals (excl. coal)" and "(25) Pulp and waste paper". These three sectors presented a trend of expansion since 2010 and they lasted until 2012. Finland also has a strong advantage of the sector "(05) Vegetables and fruit" that we could see clearly in the figure above. The main disadvantages of Finland are manufactured industries, for example, "(83) Travel goods" "(61) Leather" and "(84) Articles of apparel and clothing accessories". However, sector "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." maintained its first position during 2008-2012.

5.16 AUSTRIA

Figure 5.16 Index of Export Specialization and Index of Dependence of Austria
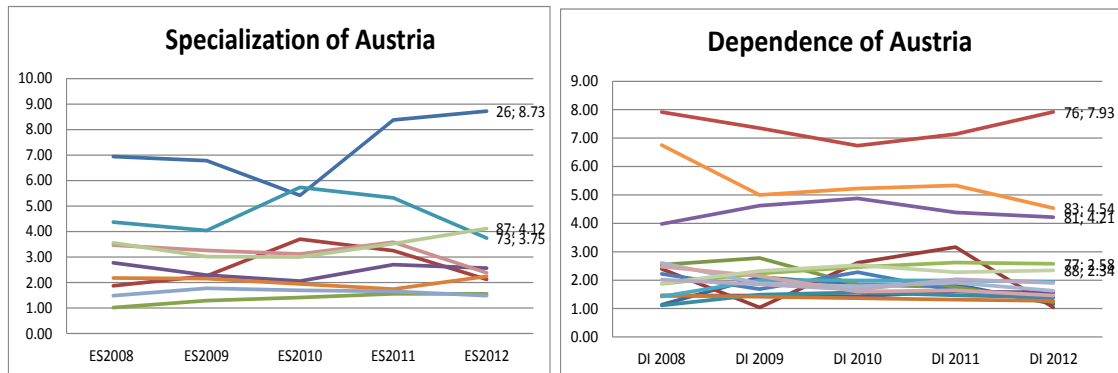
Source: self-elaboration data from Datacomex

The figures present all the advantage sectors and disadvantage sectors during 2008-2012. The most powerful export sectors are "(26) Textile fibers (other than wool tops)" "(87) Professional instruments" and "(73) Metal working machinery". The weakest sectors are "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(83) Travel goods" and "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting". The rest of the dependent sectors are below 3, such as "(77) Electrical machinery" and "(88) Photographic apparatus".

5.17 ESTONIA

Figure 5.17 Index of Export Specialization and Index of Dependence of Estonia
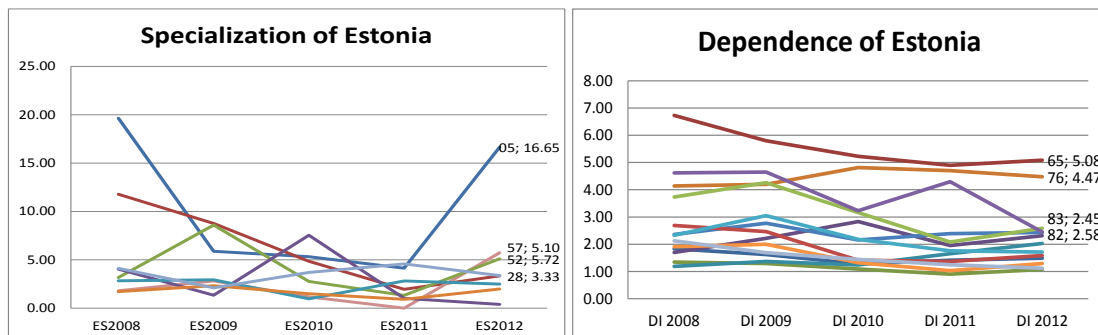
Source: self-elaboration data from Datacomex

Among all the advantage sectors of Estonia, the leading sector is "(05) Vegetables and fruit" and the following sectors are "(57) Plastics in primary forms" "(52) Inorganic chemicals" and "(28) Metalliferous ores and metal scrap". We should especially note that the sector of metalliferous ores and metal scrap dropped all the way to the 3.33 in 2012. Comparatively, the most importing sectors are focused on the manufactured industries. The most imports are "(65) Textile tarn" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(83) Travel goods" and "(82) Furniture, bedding, mattresses, mattress supports, cushions".

5.18 LITHUANIA

Figure 5.18 Index of Export Specialization and Index of Dependence of Lithuania
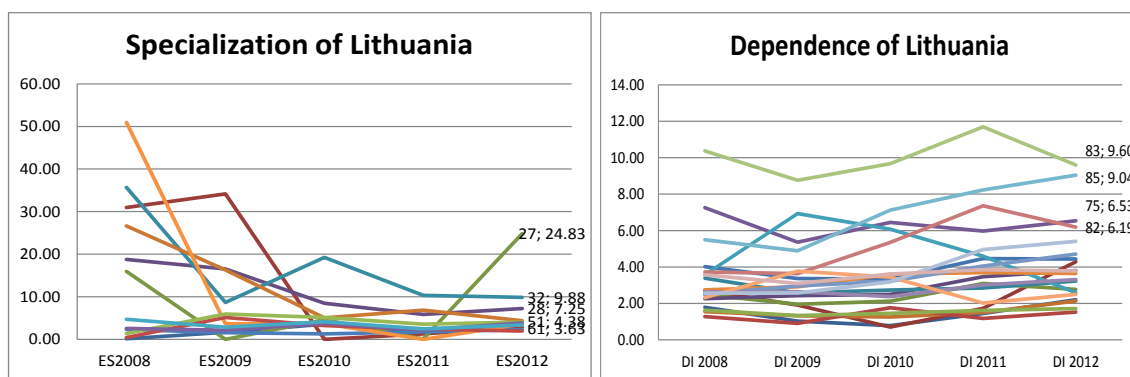
Source: self-elaboration data from Datacomex

The export specialization of Lithuania appears an extreme situation in the year 2009, because all the ratios of advantage sectors collapsed to really low levels. There was only one sector "(25) Pulp and waste paper" that has reached to its peak in 2009 but quickly went down to its bottom in the next year. The important specialized sectors are "(27) Crude fertilizers + minerals (excl. coal)" "(32) Coal" and "(28) Metalliferous ores and metal scrap". Lithuania´s dependent sectors weren´t affected by their specializations. The superior sectors are "(83) Travel goods" "(85) Footwear" "(75) Office machines and automatic data-processing machines" and "(82) Furniture, bedding, mattresses, mattress supports, cushions".

5.19 MALTA

Figure 5.19 Index of Export Specialization and Index of Dependence of Malta
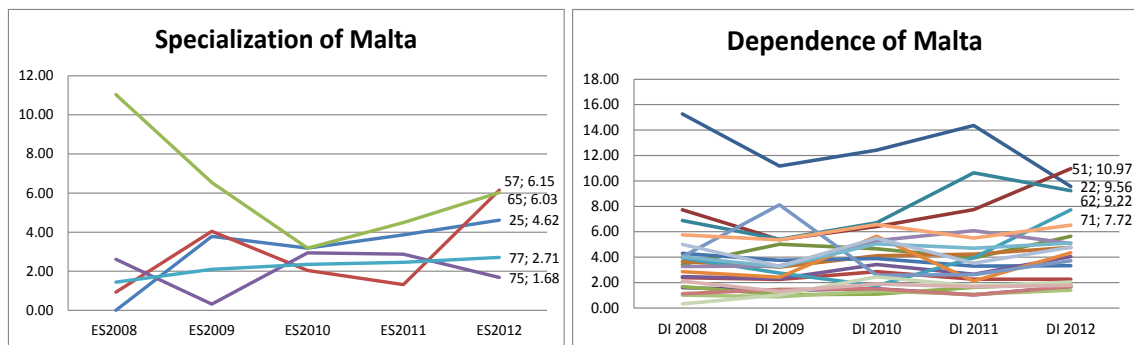
Source: self-elaboration data from Datacomex

Compare to its dependent sectors, Malta doesn't have too many specialized sectors. Sector "(65) Textile tarn" got to its bottom in 2010 and started rising in the next two years. Till 2012 the rank of specialized sectors are "(57) Plastics in primary forms" "(65) Textile tarn" "(25) Pulp and waste paper" "(77) Electrical machinery" and "(75) Office machines and automatic data-processing machines". So we could say that, this country tries to focus on its exports of machinery. Unlike its specialization, there are more dependent sectors in Malta. The top 4 weak sectors are "(51) Organic chemicals" "(22) Oil seeds and oleaginous fruits" "(62) Rubber manufactures" and "(71) Power generating machinery and equipment".

5.20 LATVIA

Figure 5.19 Index of Export Specialization and Index of Dependence of Latvia
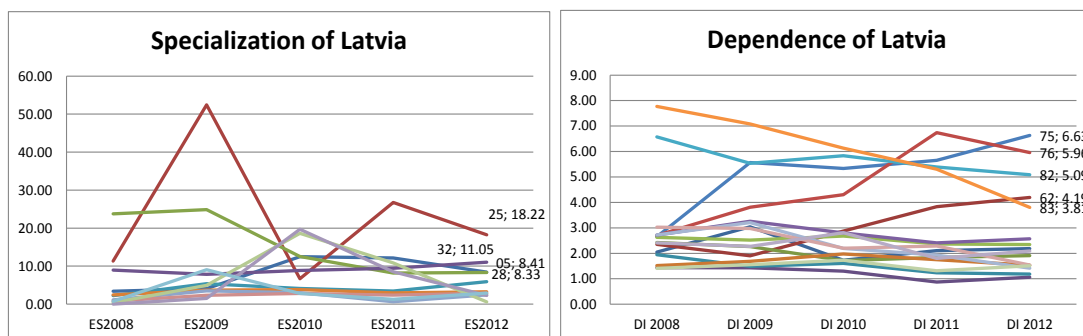
Source: self-elaboration data from Datacomex

The most unstable sectors, between the entire specialized sector, is "(25) Pulp and waste paper". It went up and down two times during these five years. The following superior sectors are "(32) Coal" "(05) Vegetables and fruit" and "(28) Metalliferous ores and metal scrap". About the dependent sectors of Latvia, there were three quick growing sectors that are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(62) Rubber manufactures". Also there was one fallen sectors that is "(83) Travel goods". From the figure of dependence of Latvia, we could see clearly China starts to concentrate on its high-tech industries.

5.21 POLAND

Figure 5.20 Index of Export Specialization and Index of Dependence of Poland
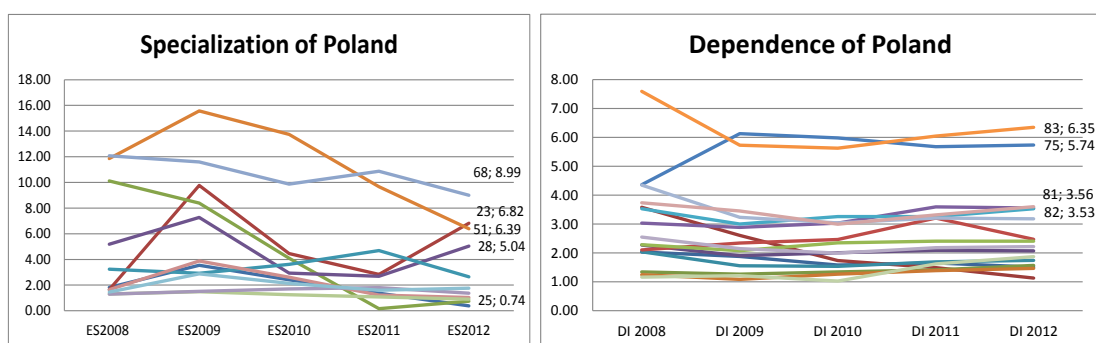
Source: self-elaboration data from Datacomex

The main tendency of the specialized sectors was declining during 2008-2012, for example, "(25) Pulp and waste paper" "(51) Organic chemicals" and "(68) Non-ferrous metals". But the last two sectors still remained in the top ratios list. However, sector "(23) Crude rubber (including synthetic and reclaimed)" and sector "(28) Metalliferous ores and metal scrap" increased apparently in these five years. The dependent sectors in its trade with China are really stable. The weakest sectors are "(83) Travel goods" "(75) Office machines and automatic data-processing machines" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" and "(82) Furniture, bedding, mattresses, mattress supports, cushions".

5.22 CZECH REPUBLIC

Figure 5.21 Index of Export Specialization and Index of Dependence of Czech Republic
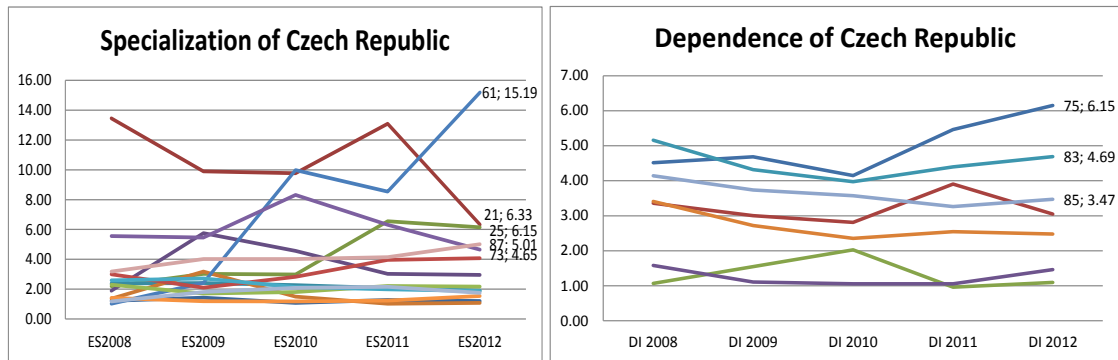
Source: self-elaboration data from Datacomex

From the data above, it shows clearly that there are more sectors of the export specialization then the dependence. It would be good news for the government of Czech Republic. The leading export sectors are "(61) Leather" "(21) Hides" "(25) Pulp and waste paper" "(87) Professional instruments" and "(73) Metal working machinery". In these sectors, leather kept increasing from 2008 to 2012 and hides dropped to 6.33 in the year 2012 from its peak point of 2011. The dependence of this country didn't have a lot of changes in these five years. The major disadvantage sectors are "(75) Office machines and automatic data-processing machines" "(83) Travel goods" and "(85) Footwear".

5.23 SLOVAKIA

Figure 5.22 Index of Export Specialization and Index of Dependence of Slovakia

Source: self-elaboration data from Datacomex

33

Through the data, Slovakia does not have too much importance in the export specializations in its trade with China. There are three sectors that have high ratios during these five years. They are "(26) Textile fibers (other than wool tops)" "(78) Road vehicles (including air-cushion vehicles)" and "(72) Machinery specialized for particular industries. On the other hand, China remains its advantages of manufacturing. Meanwhile, its superiority of machinery has grown quite a lot, such as "(75) Office machines and automatic data-processing machines" and "(76) Telecommunic. + sound recording + reprod. apparatus + equipm."

5.24 HUNGARY

Figure 5.23 Index of Export Specialization and Index of Dependence of Hungary
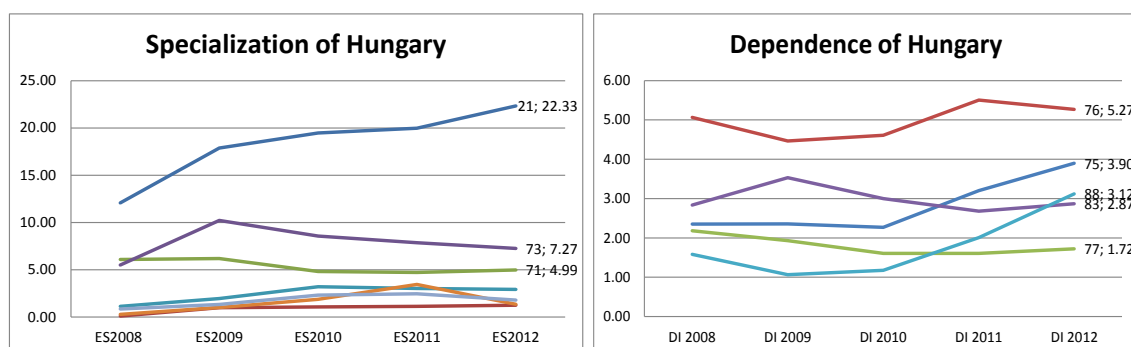
Source: self-elaboration data from Datacomex

Through the figure we could say the both indices, comparing to other countries, don't have many sectors. The leading export sectors are "(21) Hides" "(73) Metal working machinery" and "(71) Power generating machinery and equipment". The dependent sectors of Hungary only have 5 sectors and they are "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(75) Office machines and automatic data-processing machines" "(88) Photographic apparatus" "(83) Travel goods" and "(77) Electrical machinery".

5.25 SLOVENIA

Figure 5.24 Index of Export Specialization and Index of Dependence of Slovenia
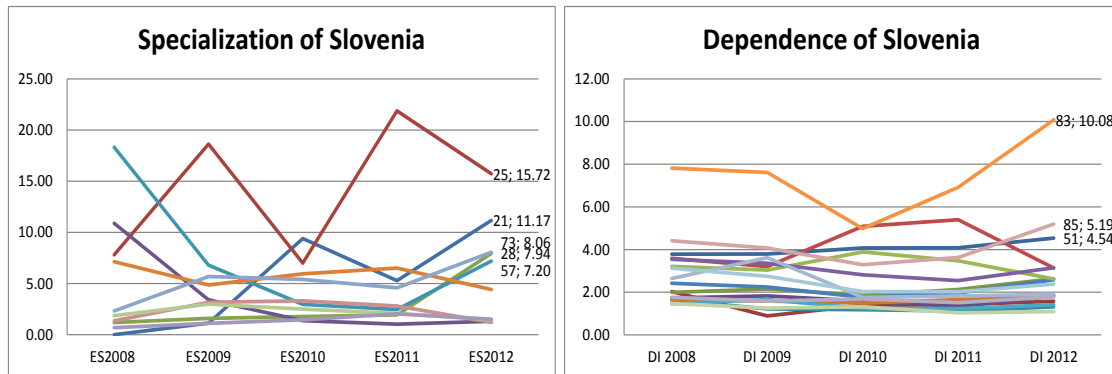
Source: self-elaboration data from Datacomex

The export specializations of Slovenia are focused on the sectors of crude materials and machinery and chemicals, while the dependences of Slovenia are manufactured goods and articles. The leading export sectors are "(25) Pulp and waste paper" "(21) Hides" "(73) Metal working machinery" "(28) Metalliferous ores and metal scrap" and "(57) Plastics in primary forms". In those sectors, pulp and waste paper was the most unstable one. The weakest sector of Slovenia is "(83) Travel goods". Even though it dropped to the bottom in 2010 but it quickly went up in the next two years. The other top two ratios are "(85) Footwear" and "(51) Organic chemicals".

5.26 CYPRUS

Figure 5.25 Index of Export Specialization and Index of Dependence of Cyprus
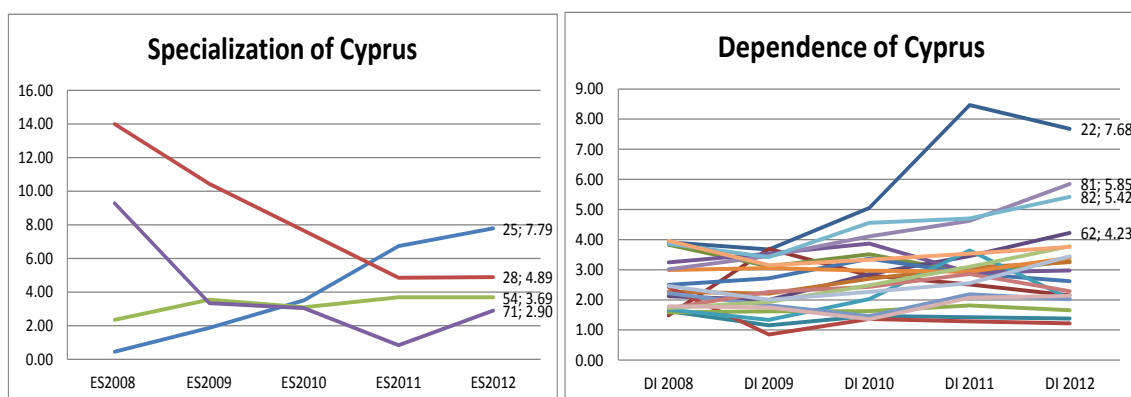
Source: self-elaboration data from Datacomex

There are less advantage sectors than disadvantage sectors. Sector "(28) Metalliferous ores and metal scrap" stopped falling in 2011 and remained steady in the following year. Sector "(71) Power generating machinery and equipment" bottomed out in 2011 and started rising in 2012. Sector "(25) Pulp and waste paper" has the highest ratio among all the specializations. The last advantage sector "(54) Medical and pharmaceutical products" was quite stable during 2008-2012. On the other side, the ratios of dependent sectors stayed around 1 to 4 in these five years. But there are three sectors that are higher than the average ratio. They are "(22) Oil seeds and oleaginous fruits" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" and "(82) Furniture, bedding, mattresses, mattress supports, cushions". All of these three sectors have an upward tendency.

5.27 ROMANIA

Figure 5.26 Index of Export Specialization and Index of Dependence of Romania
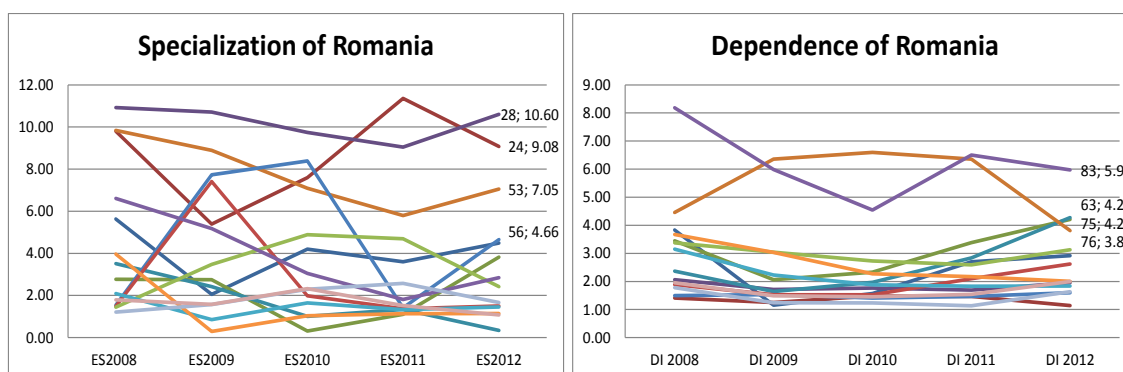
Source: self-elaboration data from Datacomex

The figure above shows the unstable export specializations of Romania. The superior sectors are "(28) Metalliferous ores and metal scrap" "(24) Cork and wood" and "(53) Dyeing". "(56) Fertilizers" has the biggest changes in these five years. It stopped rising and started falling in 2010, but since 2011 it rose again. Comparing to its specialization, those dependent sectors of Romania were quite stable in 2008-2012. Among them, the top ratios are "(83) Travel goods" "(63) Cork and wood manufactures" "(75) Office machines and automatic data-processing machines" and "(76) Telecommunic. + sound recording + reprod. apparatus + equipm."

5.28 BULGARIA

Figure 5.27 Index of Export Specialization and Index of Dependence of Bulgaria
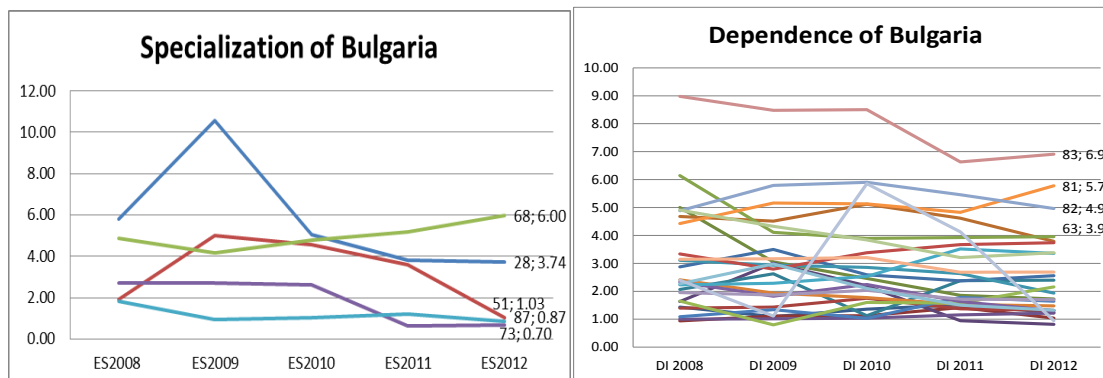
Source: self-elaboration data from Datacomex

Apparently, there are more dependent sectors than specialized sectors. The specializations are "(68) Non-ferrous metals" "(28) Metalliferous ores and metal scrap" "(51) Organic chemicals" "(87) Professional instruments" and "(73) Metal working machinery". In these sectors, metalliferous ores and metal scrap dropped dramatically since the year 2009 and trended to be stable in 2011. Dependent sectors are mainly manufacturing, such as "(83) Travel goods" "(81) Prefabricated buildings; sanitary, plumbing, heating and lighting" "(82) Furniture, bedding, mattresses, mattress supports, cushions" and "(63) Cork and wood manufactures".

After all the analyses of each of EU Member States about their specializations and dependences during 2008-2012, we can draw the following conclusions. In order to make it more clear, the following table is a conclusion of the top three specialized sectors and dependent sectors of each European Member States:

Table5. 1 Top specialized sectors and dependent sectors

Top three specialized				Top three dependent			
Country	1st	2nd	3rd	Country	1st	2nd	3rd
France	28	21	73	France	83	84	85
Belgium	21	25	28	Belgium	83	85	81
Luxembourg	68	65	72	Luxembourg	76	75	88
Netherland	21	25	28	Netherland	83	75	76
Germany	70	73	94	Germany	83	75	81
Italy	25	21	28	Italy	83	75	84
UK	25	21	28	UK	83	82	85
Ireland	25	21	77	Ireland	61	83	85
Denmark	21	24	28	Denmark	84	83	82
Greece	27	25	61	Greece	83	85	81
Portugal	27	28	26	Portugal	83	76	85
Spain	21	26	28	Spain	83	85	81
Sweden	51	25	77	Sweden	83	81	84
Finland	21	27	25	Finland	76	83	61
Austria	26	87	73	Austria	76	83	81
Estonia	05	57	32	Estonia	65	76	83
Lithuania	27	32	28	Lithuania	83	85	75
Malta	27	65	25	Malta	51	22	67
Latvia	25	32	05	Latvia	75	76	82
Poland	68	28	51	Poland	83	75	81
Czech R.	61	21	25	Czech R.	75	83	85
Slovakia	28	78	72	Slovakia	75	83	84
Hungary	21	73	71	Hungary	76	75	88
Slovenia	25	21	77	Slovenia	82	85	51
Cyprus	25	28	54	Cyprus	22	81	82
Romania	28	24	53	Romania	83	63	75
Bulgaria	68	28	51	Bulgaria	83	81	82

Source: Self-elaboration data from DataComex

China is indeed the so-called "World Factory", because of its strong advantages of exporting manufactured goods. The phrase "Made in China" summons up images of cheap shoes, plastic toys, and electronics. As a new major global trading partner, China´s global position is getting more powerful during the 2008-2012 periods.

The situation of 27 EU Member States is more complicated. Because, on the one hand, sectoral specialization profile at the level of the EU is significantly influenced by the sectoral specialization of the larger member countries, meaning that there are not marked differences between the two profiles. On the other hand, the sectoral specialization profile of the small member countries or those with a lower development level is significantly distanced from the whole EU profile, indicating their structuring by sectors depending, in an increasing measure, on comparative and competitive advantages they possess – endowment with natural resources, traditions or location

advantage (geographical position, cheap and suitable qualified workforce, favorable tax policy etc.).

Old Member States, such as Germany still has superior advantages of machinery. New Member States, such as Slovakia and Hungry also have advantages in machinery and transport equipment.

The most specialized sectors of major European countries are from group 2 – crude materials, such as Hides, Pulp and waste paper and Metalliferous ores and metal scrap. This means European countries have great advantages in their nature resoucres.

In the following chapter, we will use another two indices for helping us get conclusions of each EU Member States´ comparative advantages.

CHAPTER 6-COMPARATIVE ADVANTAGE OF THE UE27´S TRADE WITH CHINA

In this chapter, we mainly focus on the comparative advantages and disadvantage of each EU27 Member States regarding to their trades with China from the year 2008 to 2012. The most important role is the two measures: Index of Revealed Comparative Advantage and Index of Contribution to the Trade Balance.

The comparative advantage refers to a country´s relative performance across sectors, regardless of its overall performance. Accordingly, countries specialize and become net exporters (importers) in sectors where they have advantage (disadvantage) in technology, market positioning, or production costs. In relation to specialization, we investigate not market share, but how the country allocates its resources to alternative sectors, product categories or product ranges.

Among the wide range of indices of comparative advantage proposed in literature, we rely on two measures: the Index of Revealed Comparative Advantage and the Index of Contribution to the Balance. The further explanations of these two indices are in the following text.

SITC REV.3 will be used as a classification of goods to classify the exports and imports of a country to enable comparing different countries and years.

6.1 INDEX OF REVEALED COMPARATIVE ADVANTAGE

There are two similar concepts: comparative advantage and competitive advantage. These two terms are often used by different organizations such as companies, industries or even countries. Competitive advantage is measured between countries for a given product, while comparative advantage is measured between products for a given country.

As we all know, the cross-sector trade between two or more countries is initially based on the comparative advantage between them. It means the one who owns better competitiveness has comparative advantage. To capture the degree of trade specialization of a country, Bela Balassa (1965) was the first one who suggested the following of Index of Revealed Comparative Advantage (RCA):

$$RCA_i = \frac{X_i - M_i}{X_i + M_i}$$

X_i: Exportation of sector i

M_i: Importation of sector i

This index moves between +1 and -1, which means an advantage sector has a positive ratio and a disadvantage sector has a negative ratio.

- If the index has value between +1 and 0, it means this country is a net exporter in this analyzed sector. RCA = 1 reflects specialization and maximum advantage.
- If the index has value between 0 and -1, it means this country is a net importer in this analyzed sector. RCA = -1 assumes no specialization and maximum disadvantage.
- When the index is 0, this situation shows equalization of exportation and importation.

Therefore, countries have comparative advantages (disadvantages) when those sectors have reached positive values (negative values). In this way, we can get a clear idea about those comparative advantage sectors of the 27 European countries in their trade with China from 2008 to 2012.

6.1.1 RCA of EU in its trade with China

The data above are the ratios of RCA. Ratios in red color are upper than 0 which means this sector has advantage in the trade with China and it mainly exports to China. Similarly, ratios in white color are below 0 which means this sector has disadvantage in the trade with China and it depends on importation.

EU owns leading position in the sectors "(02) Dairy products and bird's eggs" "(60) Complete industrial plant appropriate to section 6" "(70) Complete industrial plant appropriate to section 7" "(80) Complete industrial plant appropriate to section 8" and "(94) Complete industrial plant not elsewhere specified". EU has disadvantages in the sectors "(19) Confidential trade of group 19" "(22) Oil seeds and oleaginous fruits" "(75)

Office machines and automatic data-processing machines" "(84) Articles of apparel and clothing accessories" and "(85) Footwear".

6.1.2 RCA of France in its trade with China

France is net exporter in the sectors of "(01) Meat and meat preparations" "(21) Hides" and "(41) Animal oils and fats". It is net importer in the sectors of "(32) Coal" "(81) Prefabr. build.; san. plumb." "(84) Articles of apparel and clothing accessories" "(85) Footwear" and "(91) Postal packages not classified according to kind".

6.1.3 RCA of Belgium in its trade with China

From the table of 6.1.3, we could see Belgium is a net exporter in the sectors "(02) Dairy products and bird's eggs" and "(21) Hides". As net importer Belgium has "(32) Coal" "(83) Travel goods" "(85) Footwear" and "(96) Coin (other than gold coin) not being legal tender".

6.1.4 RCA of Luxembourg in its trade with China

The specializations of Luxembourg are "(58) Plastics in non-primary forms" "(67) Iron and steel" and "(68) Non-ferrous metals". But the exportation wasn´t stable, it could change from 0 to 1 in only a year. A great number of sectors in this country depend on the importation, such as "(05) Vegetables and fruit" "(52) Inorganic chemicals" "(75) Office machines and automatic data-processing machines" and "(84) Articles of apparel and clothing accessories".

6.1.5 RCA of Netherland in its trade with China

There are many positive ratios in the data of Netherland, so we could say Netherland has variety of dominant sectors in its trade with China. Those positive ratios mainly

focus on the sectors of food and live animals, crude materials, mineral fuels and Animal and vegetable oils. Negative indexes mainly are sector of manufactured goods and articles and machinery and transport equipment.

6.1.6 RCA of Germany in its trade with China

Similar situation like Netherland, Germany has a lot of superiorities of the trade with China due to the number of positive ratios of RCA, especially in the areas of crude materials, chemicals products and machinery equipment. Its disadvantage sectors are mainly manufactured goods and articles.

6.1.7 RCA of Italy in its trade with China

Italy has high positive ratios of RCA in the sectors "(01) Meat and meat preparations" "(02) Dairy products and bird's eggs" and "(25) Pulp and waste paper". Yet, its high negative ratios are "(00) Live animals other than animals of division 03" "(03) Fish" "(22) Oil seeds and oleaginous fruits" and "(93) Special transact. and commodit. not classified according to kind".

6.1.8 RCA of United Kingdom in its trade with China

As we can see from the data of RCA of UK, the highest ratios of UK are "(02) Dairy products and bird's eggs", "(21) Hides" and "(25) Pulp and waste paper". When we talk about the non-specialized sectors, UK generally has the following: "(22) Oil seeds and oleaginous fruits" "(32) Coal" "(63) Cork and wood manufactures" "(83) Travel goods" "(84) Articles of apparel and clothing accessories" and "(85) Footwear". Many of the non-specialized sectors are required high cost of labor.

6.1.9 RCA of Ireland in its trade with China

Ireland mainly exports its crude materials and chemicals and related products. Also, it is net exporter of meat and dairy products. Meanwhile, it imports a lot of manufactured goods and articles which are cheap cost of production in China especially travel goods, accessories and footwear.

6.1.10 RCA of Denmark in its trade with China

Denmark has great advantages in the area of food and live animals, like "(01) Meat and meat preparations" and "(02) Dairy products and bird's eggs" which are also net exporting sectors. As for disadvantages, areas like animal and vegetable oils, fats and waxes, manufactured goods, machinery and transport equipment and miscellaneous manufactured articles. In most cases these areas depend on importing.

6.1.11 RCA of Greece in its trade with China

The advantage sectors in Greece, comparing to other European countries, don't have too many. The maximum advantages are "(02) Dairy products and bird's eggs" "(21) Hides" "(25) Pulp and waste paper" "(93) Special transact. and commodit. not classified according to kind" and "(99) Confidential". The majority of sectors of Greece rely on the importation in its trade with China, such as manufactured goods and machinery equipment. We can say that Greece was quite weak in its international trade and it would be worth for its economic growth during the period of economic crisis.

6.1.12 RCA of Portugal in its trade with China

Portugal has a similar situation of Greece that is Portugal badly depends on importation. However, there are few sectors, in which Portugal is act as a net exporter, for example, "(01) Meat and meat preparations" "(21) Hides" and "(25) Pulp and waste paper".

Portugal acts as a net importer in sectors like "(08) Feeding stuff for animals" "(56) Fertilizers" "(67) Iron and steel".

6.1.13 RCA of Spain in its trade with China

Specialized sectors of Spain mainly focused on the crude materials, such as "(21) Hides" "(25) Pulp and waste paper" and "(28) Metalliferous ores and metal scrap". There are many disadvantage sectors in Spain and most of them are manufactured sectors.

6.1.14 RCA of Sweden in its trade with China

Sweden is a country that has a close trade relationship with China. The advantage sectors have in different areas, so it shows the diversification of its economy. Most of their specialized sectors maintained stable during the five years which is a good sign for Swedish economy because the strong and stable exportation helps the growth of its economy. Its net export sectors are "(02) Dairy products and bird's eggs" "(21) Hides" and "(28) Metalliferous ores and metal scrap". The majority of disadvantage sectors are manufacturing industries and machinery and vehicle equipment which need a lot of cost of labor.

6.1.15 RCA of Finland in its trade with China

Because of Finland´s natural resources, it makes a great difference from the other European countries. The exportation "(21) Hides", "(25) Pulp and waste paper" and "(28) Metalliferous ores and metal scrap" stayed at the 1 in their ratios of revealed comparative advantage which means Finland is a net exporter in the sectors above. The highest negative ratios are "(43) Anim. or veget. fats and oils" "(56) Fertilizers" "(83) Travel goods" and "(85) Footwear".

6.1.16 RCA of Austria in its trade with China

Austria has many specialized sectors but as a net exporter Austria only has "(02) Dairy products and bird's eggs" and "(26) Textile fibers (other than wool tops)". Austria also

imports a lot products from China, the highest ratios are "(03) Fish" "(12) Tobacco and tobacco manufactures" "(43) Anim. or veget. fats and oils" "(96) Coin (other than gold coin) not being legal tender" and "(97) Gold".

6.1.17 RCA of Estonia in its trade with China

The trade relationships between Estonia and China aren't too frequent, because there are a lot of 0 in the ratio of RCA. As we can see in the figure, the exportation of Estonia doesn't have many advantages. Sectors that have ratios equal to 1 are "(21) Hides" "(25) Pulp and waste paper" "(32) Coal" and "(93) Special transact. and commodit. not classified according to kind" that means Estonia is a net exporter. Sectors that Estonia dedicates as a net importer are "(04) Cereals and cereal preparations" "(22) Oil seeds and oleaginous fruits" "(85) Footwear".

6.1.18 RCA of Lithuania in its trade with China

The table 5.18 shows that Lithuania has fewer advantages comparing to its disadvantages. From the year 2008 to 2012, the only sector that maintains its level high level of RCA is "(28) Metalliferous ores and metal scrap". Sectors grew fast during these five years are "(24) Cork and wood" "(32) Coal" and "(79) Other transport equipment". Within those disadvantage sectors, there are a lot ratios equal to -1, such as "(07) Coffee" "(12) Tobacco and tobacco manufactures" "(62) Rubber manufactures" and so on.

6.1.19 RCA of Malta in its trade with China

The tables above shows the positive ratios are lesser than the other EU Member States. In another words, Malta doesn't have strong comparative advantages in the trade with China. The advantage sectors are "(11) Beverages" "(25) Pulp and waste paper" "(65) Textile tarn" and "(77) Electrical machinery". The majority of the rest sectors depend on importation from China.

6.1.20 RCA of Latvia in its trade with China

From the table above we could know there are few sectors that increased their advantages of exporting in the last two years, for example, "(05) Vegetables and fruit" "(55) Essential oils + perfume materials; toilet" "(93) Special transact. and commodit. not classified according to kind". Sectors like "(24) Cork and wood" "(25) Pulp and waste paper" "(28) Metalliferous ores and metal scrap" and "(32) Coal" maintain the same ratio levels during the five years. That means Latvia has advantage in area of crude material. The negative ratios are mainly manufactured goods and machinery and vehicle equipment.

6.1.21 RCA of Poland in its trade with China

Poland has absolute advantages in the following sectors: "(01) Meat and meat preparations" "(02) Dairy products and bird's eggs" and "(21) Hides". The rest of the positive ratios maintained their advantage in the trade with China during these five years which is good news for the government. However, there are still many disadvantages sectors, such as "(08) Feeding stuff for animals" "(32) Coal" and "(85) Footwear". It means Poland still have a lot of possibilities to improve its comparative advantage.

6.1.22 RCA of Czech Republic in its trade with China

The advantage sectors of Czech Republic are "(02) Dairy products and bird's eggs" "(21) Hides" "(25) Pulp and waste paper" "(28) Metalliferous ores and metal scrap" and"(56) Fertilizers". As a result, we could say the most powerful sectors of Czech Republic are crude materials. The ratios equal to -1 indicate Czech Republic acts like a net importer in those sectors, which are "(03) Fish" "(09) Miscellaneous edible products and preparations" "(12) Tobacco and tobacco manufactures" "(32) Coal" "(84) Articles of apparel and clothing accessories" and "(85) Footwear".

6.1.23 RCA of Slovakia in its trade with China

Firstly most of the Slovakia's advantage sectors didn't stay stable during the year 2008 to 2012. The stable advantages are "(01) Meat and meat preparations" "(28) Metalliferous ores and metal scrap" "(72) Machinery specialized for particular industries" and "(78) Road vehicles (including air-cushion vehicles)". Secondly the majority of sectors have negative ratios that we could know most of the sectors have disadvantage in the trade with China. Thirdly the negative ratios not only concentrated on the manufactured goods and articles and machinery and vehicle equipment, but also in the areas like food and live animals, crude material, and chemical materials and so on.

6.1.24 RCA of Hungary in its trade with China

Hungary has maximum advantages in the sector of "(00) Live animals other than animals of division 03" "(01) Meat and meat preparations" "(02) Dairy products and bird's eggs" "(21) Hides" and "(33) Petroleum". The minimum advantages are "(03) Fish" "(12) Tobacco and tobacco manufactures" "(22) Oil seeds and oleaginous fruits" "(32) Coal" and "(85) Footwear".

6.1.25 RCA of Slovenia in its trade with China

The advantage sectors are "(25) Pulp and waste paper" "(28) Metalliferous ores and metal scrap" with a high speed of growth during the five years; and "(57) Plastics in primary forms". Sector "(21) Hides" was a net importing in the year 2008 but it turned to be a net exporting from 2009 till 2012. The most important sectors with negative ratios are food and live animals, manufactured goods, machinery and transport equipment and miscellaneous manufactured articles.

6.1.26 RCA of Cyprus in its trade with China

The table above shows that Cyprus has less comparative advantages than disadvantages. Its comparative advantages mainly focused on the sectors of crude materials, such as "(25) Pulp and waste paper" "(28) Metalliferous ores and metal scrap" and "(02) Dairy products and bird's eggs". The rest of the sectors, as we can see from the figure, rely on the importation. It is a bad sign for Cyprus´s economy, because it would lead to serious financial deficit.

6.1.27 RCA of Romania in its trade with China

The similar situation like Cyprus, Romania has few advantages in the trade with China. The most important advantages are "(01) Meat and meat preparations" "(11) Beverages" "(24) Cork and wood" "(28) Metalliferous ores and metal scrap" and "(56) Fertilizers". The disadvantages are mainly manufactured goods, machinery and transport equipment and miscellaneous manufactured articles.

6.1.28 RCA of Bulgaria in its trade with China

Bulgaria is a country which has fewer advantages in its trade with China. The leading sectors are "(28) Metalliferous ores and metal scrap" and "(25) Pulp and waste paper". The inferior sectors are "(58) Plastics in non-primary forms" "(63) Cork and wood manufactures" "(83) Travel goods" and "(88) Photograph apparatus."

Table 6.1.1 The top three comparative advantages

Revealed Comparative Advantage							
Country	1st	2nd	3rd	Country	1st	2nd	3rd
France	01	21	41	Austria	02	26	24
Belgium	02	21	56	Estonia	21	25	32
Luxembourg	58	67	68	Lithuania	28	24	25
Netherland	02	21	93	Malta	11	25	65
Germany	02	60	70	Latvia	25	28	32
Italy	01	02	25	Poland	01	02	21
UK	02	21	25	Czech R.	02	21	25
Ireland	02	21	28	Slovakia	01	78	28
Denmark	01	02	21	Hungary	01	02	21
Greece	02	21	25	Slovenia	25	57	28
Portugal	01	21	25	Cyprus	02	28	25
Spain	21	25	28	Romania	01	56	28
Sweden	02	21	28	Bulgaria	28	25	68
Finland	21	25	28				

Source: self-elaboration data from DataComex

After analyzed 27 EU´s countries, we made the table below in order to have a clear vision of the top three comparative advantages of each European Member States.

In major European countries their revealed comparative advantages includes sectors 1 or 2. It is because the importation from China is 0, so even there is a little value of exportation from a country the ratio still shows net exporter of this country. As we can see, most of 27UE countries have advantages in their crude materials, the same result as the previous chapter. Therefore, this index has limitations when calculating the advantage sectors, because it could be easily affected by the variation of importation.

6.2 INDEX OF CONTRIBUTION TO THE TRADE BALANCE

The Contribution to the Trade Balance is an indicator which helps to identify the structural strengths and weaknesses of a country's economy through the composition of commercials. The elements of this index include exports and imports at the same time. Moreover, it attempts to eliminate cyclical variations comparing to an industry´s trade balance with the global trade balance.

This index can be interpreted as an indicator of revealed comparative advantages, because it evaluates the balanced share of each sector in relation to the aggregate of its international trade.

If a sector i doesn´t have any advantage or disadvantage, the total balance of this country´s trade will be divided between all the sectors according to this sector´s balance share.

$$ICB_i = \left[\left\{ \frac{X_i - M_i}{X_i + M_i} - \frac{\sum_{i=1}^{n}(X_i - M_i)}{\sum_{i=1}^{n}(X_i + M_i)} \right\} * \left\{ \frac{X_i + M_i}{\sum_{i=1}^{n}(X_i + M_i)/2} \right\} \right] * 100$$

Identifying advantages of a country, this index offers richer information than the Index of Revealed Comparative Advantage.

6.2.1 ICB of European Union

The table above shows the result of the ICB from the year 2008 to 2012, numbers in the red color means tops ratios of all the industries and numbers in the yellow color means lowest ratios of all the industries.

Tops ratios indicate that these sectors have advantage in their trades with China, while lowest ratios indicate the disadvantage sectors in their trade with China.

Table 5.2.1 gives us a general idea about those advantage and disadvantage sectors. The advantage sectors are "(28) Metalliferous ores and metal scrap" "(71) Power generating machinery and equipment" "(72) Machinery specialized for particular industries" "(74) General industry mach. + equipment" and "(78) Road vehicles (including air-cushion vehicles)" The disadvantage sectors are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(82) Furnit. + parts thereof; beddg." "(84) Articles of apparel and clothing accessories" "(85) Footwear" and "(89) Miscellaneous manufactured articles"

6.2.2 ICB of France

The advantage sectors of France are "(11) Beverages" "(71) Power generating machinery and equipment" "(72) Machinery specialized for particular industries" "(78) Road vehicles (including air-cushion vehicles)" and "(79) Other transport equipment"

The disadvantage sectors are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(82) Furnit. + parts thereof; beddg." "(84) Articles of apparel and clothing accessories" "(85) Footwear" and "(89) Miscellaneous manufactured articles."

6.2.3 ICB of Belgium

The strengths of Belgium are the following sectors "(54) Medical and pharmaceutical products" "(57) Plastics in primary forms" and "(68) Non-ferrous metals"

The weaknesses of Belgium are the follow sectors "(69) Manufactures of metals" "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" "(84) Articles of apparel and clothing accessories" "(85) Footwear" and "(89) Miscellaneous manufactured articles."

6.2.4 ICB of Luxembourg

Through the table of ICB of Luxembourg, we could say the strengths of the Luxembourg´s economy mainly focused on the group 6 and 7. So the major advantage sectors of Luxembourg are "(65) Textile tarn" "(67) Iron and steel" "(68) Non-ferrous metals".

The major disadvantages sectors have quite high ratios, which are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." and "(84) Articles of apparel and clothing accessories"

6.2.5 ICB of Netherland

The most important exporting sectors of Netherland are "(28) Metalliferous ores and metal scrap" "(57) Plastics in primary forms" and "(72) Machinery specialized for particular industries" The most important importing sectors, as we can see from the figure, are manufactured goods and articles and machinery equipment of which require high costs of labor.

6.2.6 ICB of Germany

The most powerful sectors of Germany, thought the figure, focused on the machinery and vehicle equipment, such as "(78) Road vehicles (including air-cushion vehicles), "(72) Machinery specialized for particular industries" and "(73) Metal working machinery".The weakest sectors in its trade with China are manufactured industries.

6.2.7 ICB of Italy

Italy has some really strong strength of sectors, such as "(72) Machinery specialized for particular industries" "(73) Metal working machinery" "(74) General industry mach. + equipment", that are all machinery equipment with the demand of high technology. On the other hand, China exports to Italy manufactured goods, such as "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles". The figure also shows China started to strength its industry goods, because the ratios of "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." and "(77) Electrical machinery" increased a lot in the last three years.

6.2.8 ICB of United Kingdom

The advantage sectors of UK are the following "(87) Professional instruments" "(78) Road vehicles (including air-cushion vehicles)" "(28) Metalliferous ores and metal

scrap" "(71) Power generating machinery and equipment" "(54) Medical and pharmaceutical products" and "(25) Pulp and waste paper"

Until 2013 there are 32 operating British brands of cars(Crossland, 2013), the majority are race cars or luxury sports cars, demonstrating Britain´s heritage is high quality engineering, and clearly showing why British remains the world´s premier location for motorsport engineering. Chinese people love luxury sports cars. In January 2009, China surpassed the U.S. to become the world's largest car market (Erickson, 05-2014). So we could say that in the sector of road vehicle UK has a great advantage comparing to other countries.

The disadvantage sectors are mainly manufactured goods, such as "(84) Articles of apparel and clothing accessories" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." and "(75) Office machines and automatic data-processing machines".

6.2.9 ICB of Ireland

Unlike the other European countries, Ireland doesn't have strong strengths in the sectors of machinery equipment, except the sector "(77) Electrical machinery" which is the only high ratio of ICB.

It has advantage in the following sectors "(21) Hides" "(25) Pulp and waste paper" "(51) Organic chemicals" and "(54) Medical and pharmaceutical products". The most importing products from China are manufactured articles, like "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.10 ICB of Denmark

Denmark has advantages in the following sectors: "(01) Meat and meat preparations" due to the natural resources of the country; "(54) Medical and pharmaceutical products" obtain a high strength of exporting comparing to other exporting sectors of denmark;

"(71) Power generating machinery and equipment" "(72) Machinery specialized for particular industries" "(74) General industr. mach. + equipment".

The highest value of importation from China are "(84) Articles of apparel and clothing accessories" "(89) Miscellaneous manufactured articles" and "(69) Manufactures of metals".

6.2.11 ICB of Greece

Greece advantage sectors are "(25) Pulp and waste paper" "(27) Crude fertilizers + minerals (excl. coal)" "(28) Metalliferous ores and metal scrap" "(42) Fixed vegetable fats and oils" that we could say Greece mainly export its crude materials.

The disadvantage sectors are "(74) General industr. mach. + equipment" "(77) Electrical machinery" "(79) Other transport equipment" "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.12 ICB of Portugal

The data above shows that Portugal has a similar structural economy like Greece, because most the strengths of Portuguese sectors are from crude materials, such as "(25) Pulp and waste paper" "(27) Crude fertilizers + minerals (excl. coal)" and "(28) Metalliferous ores and metal scrap". But there also has "(63) Cork and wood manufactures" that exported in a huge value during the five years.

The weaknesses of Portuguese sectors are "(67) Iron and steel" even though it dropped badly in the year 2009 due to the economic crisis; "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.13 ICB of Spain

Spain has advantages in the following sectors "(28) Metalliferous ores and metal scrap" "(57) Plastics in primary forms" and "(78) Road vehicles (including air-cushion vehicles)". Sector "(71) Power generating machinery and equipment" was quite strong during the year 2008, but it kept decreasing every year until 2012 it reached to 0.78. The most imported sectors are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" "(84) Articles of apparel and clothing accessories" "(85) Footwear" and "(89) Miscellaneous manufactured articles". All of them are the most common products imported from China to EU.

6.2.14 ICB of Sweden

The advantage sectors of Sweden are "(28) Metalliferous ores and metal scrap" "(51) Organic chemicals" "(54) Medical and pharmaceutical products" "(64) Paper" "(67) iron and steel" "(72) Machinery specialized for particular industries" "(74) General industry mach. + equipment" and "(78) Road vehicles (including air-cushion vehicles)". We could say Sweden has diverse advantages of industries.

The disadvantage sectors are "(69) Manufactures of metals" "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(81) Prefabr. build.; san. plumb." "(82) Furnit. + parts thereof; beddg." "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.15 ICB of Finland

Finland is outstanding for "(25) Pulp and waste paper" "(64) Paper" "(68) Non-ferrous metals" "(71) Power generating machinery and equipment" "(72) Machinery specialized

for particular industries" and "(74) General industr. mach. + equipment", most of them are belong to machinery industries.

The inferior sectors are "(69) Manufactures of metals" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.16 ICB of Austria

In the trade with China, Austria has dominant position in the sectors of machinery and transport equipment, for example "(72) Machinery specialized for particular industries" "(74) General industry mach. + equipment" and "(87) Professional instruments".

On the other side, Austria is weak in the sectors "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(81) Prefabr. build.; san. plumb." "(82) furnit. + parts thereof; beddg." "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles", in which most of them are manufactured articles.

6.2.17 ICB of Estonia

The leading sectors of Estonia are "(05) Vegetables and fruit" "(24) Cork and wood" and "(28) Metalliferous ores and metal scrap, which give us an image of this country has superiority in its natural resources.

On the other hand, it imports mainly from China the following sectors "(65) Textile tarn" "(69) Manufactures of metals" "(77) Electrical machinery" "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.18 ICB of Lithuania

Lithuania mainly exports its crude materials, such as "(24) Cork and wood" and "(28) Metalliferous ores and metal scrap". This country also exports products like "(05) Vegetables and fruit" and "(82) Furnit. + parts thereof; bedding."

As for its disadvantage, it normally imports sectors like "(69) Manufactures of metals" "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" and "(89) Miscellaneous manufactured articles". Most of them are machinery industries which are quite different from the importation of the other European countries. Therefore, we could say that China has a dominant position of the machinery industries in its trade with Lithuania.

6.2.19 ICB of Malta

As we can see from the figure, Malta doesn't have too many trade relations with China. The leading sectors of Malta in its trade with China are "(65) Textile tarn" and "(77) Electrical machinery". The electrical machinery occupies a huge percentage among the total number of exportation.

The disadvantage sectors are "(51) Organic chemicals" "(74) General industr. mach. + equipment" "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.20 ICB of Latvia

The superior sectors of Latvia are "(24) Cork and wood" "(28) Metalliferous ores and metal scrap" and "(32) Coal".

The inferior sectors are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." and "(89)

Miscellaneous manufactured articles". Through the figure we could notice the mainly disadvantage sectors of Latvia are focused on the machinery.

6.2.21 ICB of Poland

The dominant sectors of Poland in its trade with China are "(28) Metalliferous ores and metal scrap" "(51) Organic chemicals" and "(68) Non-ferrous metals".

The weak sectors are "(65) Textile tarn" "(69) Manufactures of metals" "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.22 ICB of Czech Republic

Czech Republic mainly exports to China its machinery and transport equipment, such as "(71) Power generating machinery and equipment" "(72) Machinery specialized for particular industries" "(73) Metal working machinery" "(74) General industry mach. + equipment" and "(78) Road vehicles (including air-cushion vehicles)".

China mainly exports to Czech Republic its manufactured goods and articles, such as "(68) Non-ferrous metals" "(84) Articles of apparel and clothing accessories" and "(85) Footwear". However, China also maintains its leading advantage in the sectors of "(75) Office machines and automatic data-processing machines" and "(76) Telecommunic. + sound recording + reprod. apparatus + equipm.".

6.2.23 ICB of Slovakia

Slovakia´s superior sectors are "(78) Road vehicles (including air-cushion vehicles)" "(72) Machinery specialized for particular industries" "(58) Plastics in non-primary forms" "(28) Metalliferous ores and metal scrap" and "(26) Textile fibers (other than wool tops)". The automotive sector is among the fastest growing sectors in Slovakia due

to the large investments of Volkswagen (Bratislava), Peugeot (Trnava) and Kia Motors (Žilina Plant, Žilina) (Wikipedia, 2010).

Its inferior sectors are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.24 ICB of Hungary

The ascendant sectors of Hungary are "(71) Power generating machinery and equipment" "(74) General industry mach. + equipment" "(78) Road vehicles (including air-cushion vehicles)" and "(87) Professional instruments".

The disadvantage sectors are "(75) Office machines and automatic data-processing machines" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" and "(89) Miscellaneous manufactured articles".

6.2.25 ICB of Slovenia

Slovenia´s dominant sectors are "(25) Pulp and waste paper" "(28) Metalliferous ores and metal scrap" "(57) Plastics in primary forms" "(71) Power generating machinery and equipment" and "(73) Metal working machinery".

The weak sectors are "(51) Organic chemicals" "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.26 ICB of Cyprus

The advantage sectors are "(54) Medical and pharmaceutical products" "(28) Metalliferous ores and metal scrap" "(27) Crude fertilizers + minerals (excl. coal)" and "(11) Beverages". The exportation of medical and Pharmaceutical products increased quickly during these five years. According to the data, it grew 60% of ICB regarding to the previous year.

The disadvantage sectors are "(66) Non-metallic mineral manufactures" "(69) Manufactures of metals" "(74) General industry mach. + equipment" "(77) Electrical machinery" "(82) Furnit. + parts thereof; bedding" and "(89) miscellaneous manufactured articles".

6.2.27 ICB of Romania

The advantage of Romania´s sectors are diversification, such as "(24) Cork and wood" "(28) Metalliferous ores and metal scrap" "(56) Fertilizers" "(62) Rubber manufactures" and "(78) Road vehicles (including air-cushion vehicles)".

The disadvantage sectors are "(76) Telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" "(84) Articles of apparel and clothing accessories" and "(89) Miscellaneous manufactured articles".

6.2.28 ICB of Bulgaria

The leading export sectors of Bulgaria are "(11) Beverages" "(28) Metalliferous ores and metal scrap" and "(68) Non-ferrous metals".

The major import sectors are "(74) General industr. mach. + equipment" "(76) telecommunic. + sound recording + reprod. apparatus + equipm." "(77) Electrical machinery" and "(89) Miscellaneous manufactured articles".

The same like we did in the first part of this chapter, the top advantage sectors from the calculation of index of contribution to the trade balance are the following table:

Table 6.2 1 Top three sectors of Index of Contribution to the Trade Balance

Contribution to the Trade Balance							
Country	1st	2nd	3rd	Country	1st	2nd	3rd
France	79	71	11	Austria	72	74	87
Belgium	68	57	54	Estonia	28	24	05
Luxembourg	68	67	65	Lithuania	28	05	82
Netherland	28	72	57	Malta	77	65	25
Germany	78	74	72	Latvia	28	32	24
Italy	72	74	73	Poland	68	51	28
UK	78	54	71	Czech R.	71	74	72
Ireland	77	54	51	Slovakia	78	72	28
Denmark	54	01	74	Hungary	71	74	87
Greece	27	28	25	Slovenia	28	57	73
Portugal	28	27	25	Cyprus	54	28	11
Spain	28	78	57	Romania	28	24	56
Sweden	67	78	74	Bulgaria	68	28	11
Finland	72	25	64				

Source: self-elaboration data from DataComex

According to the Index of Contribution to the Trade Balance, the top advantage sectors of each European countries are quite different from the results of previous part of this chapter. It is because the different characteristics of these two indices.

Although these two indices help us to get a conclusion of the advantages and disadvantages of each European country regarding to their trade with China during the year 2008 to 2012. But the first index can have the same results in all sectors without comparing to each situation. For example, the exports of dairy products and bird´s eggs are actually really small amount of value regarding to the total value of exportation, but the RCA index indicates as a leading industry in many EU Member States due to the importation is equal to cero, such as Belgium, Luxembourg and Netherland. Furthermore, this index doesn't take into consideration of a country´s overall trading behavior. For example, if a country has trade deficit, it may exist one sector that is better in exporting than the other sectors of the whole country, but RCA can´t show this fact. Therefore, the second index, comparing with the first one, can present us a relatively real situation of a country.

Through the result of these two indices, we could see that EU exports are largely concentrated in four sectors: crude materials, machinery, chemical products and transport equipment. The sectoral composition of EU exports has been relatively stable over the 2008 – 2012, with a few notable changes due to the financial crisis in 2008. The On the other hand, China shows indeed strong and increasing advantage in manufacturing sector from 2008 to 2012 (perhaps as a consequence of WTO accession in 2001) and a reduction in primary sector specialization. In the whole period 2008 to 2012 China´s leading sector measured by the both indices was manufacturing. In addition, China is outstanding for its rapid increasing exports of office machines and automatic data-processing machines and telecommunications and sound-recording and reproducing apparatus and equipment, which mean China not only has raised its manufacturing but also has expanded its exports of high-tech products.

Finally, the analysis of comparative advantage for single EU Member States shows wide differences in trade specialization among EU Member States. Older industrialized Member states have strong comparative advantage in chemicals, machinery and transport equipment, such as Germany, United Kingdom, France and Italy, while new Member States are working towards achieving comparative advantage in crude materials, such as Estonia, Lithuania and Latvia. Slovakia stands out for its high and increasing specialization in automotive sector due to the large investments from other brands.

CONCLUSIONS

Our study about each European Member States´ specializations and advantages in the Chinese market is really helpful for understanding of the characteristics of each market. Through this study, we can get the following conclusions:

- China has experienced rapid economic and social development. GDP growth averaging about 10 percent a year has lifted more than 500 million people out of poverty. China recently became the second largest economy and is increasingly playing an important and influential role in the global economy. However, rapid economic ascendance has brought on many challenges as well, including high inequality; rapid urbanization; challenges to environmental sustainability; and external imbalances. China also faces demographic pressures related to an aging population and the internal migration of labor. Although China still remains a lot of challenges and its market reforms are incomplete, but its importance to the world economy cannot be ignored.

- The relationship between China and Europe are getting closer and closer in the recent years. As we see from the figure 3.3 and figure 3.4, both of the top trading partners of European Union and China are in their top three ranking list. The influence of these two largest economies could affect the world economic situations.

- From the results of chapter 4 and 5, we made a complete list of each European country about their specializations and their comparative advantages regarding to the trade with China. The numbers are two digit-codes from the SITC Rev.3 of which represent their unique product.

Table 7.1 complete list of specialization and comparative advantage of EU

	Specialization	Comparative Advantage
EU	21,23,25,26,27,28,57,60,61,68,70,71,72,73,74,77,78,79,80,87,91,93,94	28,71,72,74,78
France	11,21,23,24,25,26,28,61,71,72,73,74,77,79,87	11,71,72,78,79
Belgium	21,23,24,25,26,28,51,56,57,66,68,72,73,74,77,99	28,51,54,57,68
Luxembourg	65,68,72,74,77	65,67,68,72,74,77
Netherlands	09,21,25,26,28,29,51,53,57,61,65,71,72,73,74,77,87	25,28,33,51,57,72
Germany	25,28,52,60,70,71,72,73,74,77,78,79,80,87,94	71,72,73,74,78,79,89
Italy	21,25,27,28,52,53,59,61,68,72,73,74,87	28,72,73,74
UK	21,23,25,26,28,57,68,71,72,73,74,77,78,87,89	25,28,54,71,78,87
Ireland	21,25,26,57,71,75,77	09,21,25,51,54,77
Denmark	01,03,21,24,28,51,62,71,72,73,74,77,87,88,93	01,21,54,71,72,74
Greece	21,25,26,27,28,42,53,61,99	25,27,28,42,99
Portugal	24,25,26,27,28,61,63,72,77	25,27,28,63
Spain	03,21,25,26,27,28,29,51,53,57,59,61,71,72,73,74,87,99	28,57,71,78
Sweden	05,21,25,28,51,67,72,73,74,77,79,87	28,51,54,64,67,72,74,78
Finland	05,21,25,27,28,65,68,71,72,73,74,77,87	25,64,68,71,72,74
Austria	26,58,66,72,73,74,77,79,87	72,73,74,79,87
Estonia	05,28,52,57,73,76,77,87	05,24,28,33,87
Lithuania	05,25,26,28,32,51,59,61,81,82,87,88	05,24,28,82
Malta	25,57,65,75,77	25,65,77
Latvia	05,25,28,32,55,57,71,82,85,87	05,24,28,32
Poland	21,23,28,29,51,68,72,74,81,87	28,51,68
Czech Republic	05,21,25,28,29,52,57,61,71,72,73,74,77,79,87	28,71,72,73,74,78,87
Slovakia	26,72,74,78,85	26,28,58,72,78
Hungary	21,71,73,74,79,87	71,74,78,79,87
Slovenia	21,25,28,51,57,71,73,74,77,87	25,28,57,71,73
Cyprus	25,28,54,71	11,27,28,54
Romania	11,24,27,28,51,53,56,57,58,71,72,73,74,87	24,28,56,62,71,78
Bulgaria	28,51,68,73,87	11,28,68

Source: Self-elaboration data from DataComes

- The six oldest members of EU, which are France, Belgium, Luxembourg, Netherlands, Germany and Italy, all have strong specializations in the machinery

and transport equipment. Except Luxembourg, they are all specialized in primary sections, such as raw materials. However, when we compared their specializations and comparative advantages, these six countries all have one sector that is not included in the list of specialization, but they have actually comparative advantages in the Chinese market. For example, "(78) ROAD VEHICLES (INCLUDING AIR-CUSHION VEHICLES)" doesn't include in the list of France´s specialization but in the Chinese market automobile manufactures of France have a great reputation; "(67) IRON AND STEEL" of Luxembourg is the pillar industry of the country but its ratios of specialization were always a little below than 1 during the 2008-2012 periods; the ratios of "(33) PETROLEUM" of Netherlands were rising every year and in the end of 2012 it was higher than 1, consequently this sector is getting stronger than before and it is in the list of comparative advantage.

- In 1973, Denmark, Ireland and the United Kingdom joined the EU. Except Ireland, Denmark and UK have strong advantages in the machinery industries. Besides, UK is powerful in its automobile industries.

- Although Greece doesn't have a strong industry of machinery but Greece is specialized in the raw material industries and it also has comparative advantage in the trade with China.

- Portugal and Spain are focused on the exports of raw material. But in the same time, Spain has advantage of its automobile manufactures. The SEAT is the top ranking automobile in the market of China (Baidu.com)

- Sweden, Finland and Austria have advantages in the crude materials and machinery, especially Austria because of its comparative advantages regarding to the trade with China all belong to machinery.

- Estonia, Lithuania, Malta, Latvia, Poland, Czech Republic, Slovakia, Hungary, Slovenia and Cyprus aren´t like the other European counties because they have less comparative advantages. Except Hungary, they mainly export their raw materials. Estonia, Lithuania, Latvia don't have "(24) CORK AND WOOD" in their lists of specializations. The reason of this is the unstable ratios of specialization from one year to another. For example, in the year 2008 Lithuania had a ratio of 0.54 and until 2011 it extended to 23,86 and it dropped again to 13,61 in 2012. "(28) METALLIFEROUS ORES AND METAL SCRAP"

doesn't show up in the list of specialization is because its imports from china is 0; hence it has comparative advantage in the trade with China. The same happened to Czech Republic and Hungary in the "(78) ROAD VEHICLES (INCLUDING AIR-CUSHION VEHICLES)", their exports are much higher than imports.

- Romania has great specialization in the sector of chemicals. Bulgaria doesn't have too many sectors in the list of specialization. "(11) BEVERAGES" of Bulgaria was raising its advantages every year during the period of 2008-2012. "(78) ROAD VEHICLES (INCLUDING AIR-CUSHION VEHICLES)" doesn't include in the list of Specialization but it is a comparative advantage in its trade with China, due to many of the Romanian manufacturing industry consists of branch plants of foreign firms.

- The main pillar industry of the European Union regarding to the trade with China in 2008-2012 is machinery and transport equipment. Meanwhile, there are many countries that they focused on the exporting of their crude materials to China. "(54) MEDICAL AND PHARMACEUTICAL PRODUCTS" is in the list of comparative advantage in many countries, such as Belgium, UK, Denmark and Sweden. It is a new major exporting industry and it is getting stronger its specialization each year.

- In the future, with the development of China, the commercial relation between China and EU will be more frequent and will not only confined to the machinery, transport equipment and raw material, but also extend to more diversification.

- Although there are more specialized products, this does not mean all these products should be comparative advantages in its trade relationship with China. In addition, we should focus on the differences between index of specialization and index of contribution to the trade balance. Because the index of specialization only has a vision from exporting country compared to the exports to the world. However, the index of contribution to the balance takes into account not only exports but also imports that is associated with another country. Therefore, there are more products in the list of specialization that the list of comparative advantage.

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ANNEX 1 STANDARD INTERNATIONAL TRADE CLASSIFICATION (SITC) – REVISION 3 – LEVEL 2

PROD	DESCRIPTION
00	LIVE ANIMALS OTHER THAN ANIMALS OF DIVISION 03
01	MEAT AND MEAT PREPARATIONS
02	DAIRY PRODUCTS AND BIRD'S EGGS
03	FISH
04	CEREALS AND CEREAL PREPARATIONS
05	VEGETABLES AND FRUIT
06	SUGARS
07	COFFEE
08	FEEDING STUFF FOR ANIMALS (N INC UNMILCEREALS)
09	MISCELLANEOUS EDIBLE PRODUCTS AND PREPARATIONS
11	BEVERAGES
12	TOBACCO AND TOBACCO MANUFACTURES
19	CONFIDENTIAL TRADE OF GROUP 19
21	HIDES
22	OIL SEEDS AND OLEAGINOUS FRUITS
23	CRUDE RUBBER (INCLUDING SYNTHETIC AND RECLAIMED)
24	CORK AND WOOD
25	PULP AND WASTE PAPER
26	TEXTILE FIBRES (OTHER THAN WOOL TOPS)

27	CRUDE FERTILIZERS + MINERALS (EXCL. COAL)
28	METALLIFEROUS ORES AND METAL SCRAP
29	CRUDE ANIMAL AND VEGETABLE MATERIALS
32	COAL
33	PETROLEUM
34	GAS
35	ELECTRIC CURRENT
39	CONFIDENTIAL TRADE OF GROUP 39
41	ANIMAL OILS AND FATS
42	FIXED VEGETABLE FATS AND OILS
43	ANIM. OR VEGET. FATS AND OILS
49	CONFIDENTIAL TRADE OF GROUP 49
51	ORGANIC CHEMICALS
52	INORGANIC CHEMICALS
53	DYEING
54	MEDICAL AND PHARMACEUTICAL PRODUCTS
55	ESSENTIAL OILS + PERFUME MATERIALS; TOILET
56	FERTILIZERS
57	PLASTICS IN PRIMARY FORMS
58	PLASTICS IN NON-PRIMARY FORMS
59	CHEMICAL MATERIALS AND PRODUCTS
60	COMPLETE INDUSTRIAL PLANT APPROPRIATE TO SECTION 6

61	LEATHER
62	RUBBER MANUFACTURES
63	CORK AND WOOD MANUFACTURES
64	PAPER
65	TEXITILE TARN
66	NON-METALLIC MINERAL MANUFACTURES
67	IRON AND STEEL
68	NON-FERROUS METALS
69	MANUFACTURES OF METALS
70	COMPLETE INDUSTRIAL PLANT APPROPRIATE TO SECTION 7
71	POWER GENERATING MACHINERY AND EQUIPMENT
72	MACHINERY SPECIALIZED FOR PARTICULAR INDUSTRIES
73	METAL WORKING MACHINERY
74	GENERAL INDUSTR. MACH. + EQUIPMENT
75	OFFICE MACHINES AND AUTOMATIC DATA-PROCESSING MACHINES
76	TELECOMMUNIC. + SOUND RECORDING + REPROD. APPARATUS + EQUIPM.
77	ELECTRICAL MACHINERY
78	ROAD VEHICLES (INCLUDING AIR-CUSHION VEHICLES)
79	OTHER TRANSPORT EQUIPMENT
80	COMPLETE INDUSTRIAL PLANT APPROPRIATE TO SECTION 8
81	PREFABRICATED BUILDINGS; SANITARY, PLUMBING,

	HEATING AND LIGHTING
82	FURNITURE, BEDDING, MATTRESSES, MATTRESS SUPPORTS, CUSHIONS
83	TRAVEL GOODS
84	ARTICLES OF APPAREL AND CLOTHING ACCESSORIES
85	FOOTWEAR
87	PROFESSIONAL INSTRUMENTS
88	PHOTOGRAPHIC APPARATUS
89	MISCELLANEOUS MANUFACTURED ARTICLES
91	POSTAL PACKAGES NOT CLASSIFIED ACCORDING TO KIND
93	SPECIAL TRANSACT. AND COMMODIT. NOT CLASSIFIED ACCORDING TO KIND
94	COMPLETE INDUSTRIAL PLANT NOT ELSEWHERE SPECIFIED
96	COIN (OTHER THAN GOLD COIN) NOT BEING LEGAL TENDER
97	GOLD
99	CONFIDENTIAL

Trabajo de fin de Grado

(Versión en español)

1- IMPORTANCIA DE CHINA EN EL MUNDO

China es el cuarto país más grande en el mundo (División de Estadística de las Naciones Unidas, 2014), que tiene una población de 1.357 millones (Banco Mundial de Datos de 2014). En la era moderna, la influencia de China en la economía mundial fue mínima hasta el final de 1980. A partir de 1978 comenzaron a generar un crecimiento significativo y sostenido de la inversión, el consumo y el nivel de vida.

Con la rapidez de desarrollo de la economía china, se ha convertido en la segunda mayor economía del mundo. El PIB de China, entre 2008 y 2012, ha pasado de 31,404.5 millones de yuanes a 51,932.2 millones de yuanes (Economía Trending, 2014). Actualmente, China es unos de los países con más importancia en el mundo y juega un papel significante en la economía mundial.

2- RELACIÓN ENTRE EU Y CHINA

Según la Comisión Europea, la Unión Europea y China son dos de los mayores operadores en el mundo. Hoy en día, China se ha convertido en el segundo socio comercial de la UE tras los Estados Unidos y la Unión Europea es el mayor socio comercial de China (Comisión Europea, 05/05/2014).

La importancia del comercio entre la UE y China no puede ser ignorada, no sólo debido a que China es uno de los principales mercados de exportación e importación, sino también por la Unión Europea es uno de los mercados más atraídos:
- La UE es la mayor economía del mundo. Aunque se prevé que el crecimiento será lento, la UE sigue siendo la economía más grande del mundo con un PIB per cápita de 25 000 € para sus 500 millones de consumidores.
- La UE es el bloque comercial más grande del mundo. La UE es el mayor comercializador mundial de bienes manufacturados y servicios.
- La UE ocupa el primer lugar en ambas inversiones internacionales entrantes y salientes.

- La UE es el principal socio comercial de 80 países. En comparación los EE.UU. es el principal socio comercial de un poco más de 20 países.
- La UE es el más abierto a los países en desarrollo. Combustibles excluidos, la UE importa más de los países en desarrollo que en los EE.UU., Canadá, Japón y China juntos.
- Los beneficios de la UE de ser una de las economías más abiertas del mundo y mantiene su compromiso con el libre comercio. Por ejemplo, el arancel medio aplicado a los productos importados en la UE es muy bajo. Más del 70% de las importaciones entran en la UE con cero o reducidos aranceles.

3- METODOLOGÍA DEL ESTUDIO

El estudio proporciona un análisis de los 67 sectores entre la relación comercial de cada Estado miembro de la UE y China de 2008 to 2012, tratando de obtener algunas conclusiones de especialización de los 27 países de EU. Finalmente, podríamos obtener un análisis exhaustivo de las ventajas y desventajas de estos países.

La metodología que se utilizará en nuestro estudio es: especialización de las exportaciones y la ventaja comparativa. Entre la amplia gama de índices de estos dos puntos de vista propuestos en la literatura, utilizaremos cuatro índices que se utilizan con frecuencia por los investigadores y analistas económicos:
- Índice de Exportación Especialización
- Índice de Dependencia
- Índice de Ventaja Comparativa Revelada
- Índice de Contribución al saldo

A lo largo de la realización de este trabajo hemos utilizado numeroso material como apoyo a la elaboración del mismo. Evidentemente cualquier investigación sobre el comercio exterior precisa los datos de exportaciones e importaciones de los países presentes en los mercados internacionales. De las diversas fuentes existentes que además fueran accesibles por internet y de consulta abierta hemos optado por la que se considera más completa y fiable en la Unión Europea: DataComex. En España esta fuente de información sobre las operaciones de comercio internacional está gestionada

por la Secretaría de Estado de Comercio Exterior y de ella se han obtenido todos los datos utilizados en este trabajo.

"*DataComex es bases de datos multidimensionales (cubos OLAP) del comercio exterior de la Unión Europea con especificación de países miembros de la UE, países socios y sus agrupaciones, clasificación de productos o mercancías (TARIC, sectores económicos, CUCI), flujo (exportación-importación), tipo de comercio, periodicidad (series interanuales), variables (valor monetario, peso, unidades arancelarias).*" (Secretaría de Estado de Comercio Exterior, s.f.).

Sobre los productos, vamos a seguir los códigos de CUCI que es clasificación de los productos para comparar las exportaciones e importaciones de un país con los diferentes países y años. Este sistema de clasificación se mantiene las Naciones Unidas. La clasificación CUCI se encuentra actualmente en cuarta revisión, que fue promulgada en 2006. CUCI Rev.3 es mejor para nuestra recopilación de datos, debido a que la investigación se centró principalmente en el período 2008-2012 y la revisión 3 tiene un conjunto de datos completos que la revisión 4. Anexo 1 se muestra una lista completa de todas las categorías de productos.

4- CONCEPTOS DE LOS CUATRO ÍNDICES

El primer índice que utilizamos es <u>índice de especialización</u>. Este índice es utilizado para medir la especialización comercial de un país UE27 en su comercio con China frente a su comercio con el Mundo.

$$ES_{iE} = \frac{X_{iCH}/\sum_i X_{CH}}{X_{iWorld}/\sum_i X_{World}}$$

En donde CH es China, World es Mundo, i es sector (Divisiones CUCI)

Cuanto más elevado sea este índice mayor grado de especialización presenta el país en su comercio con China frente a su comercio con el Mundo en el sector analizado.

$ES_{iE} > 1$ indica que el País UE está especializada en las exportaciones del sector i en relación con lo que ocurre con el Mundo.

$ES_{iE} < 1$ indica que las exportaciones dirigidas a China del sector i por el País UE están por debajo de que ocurre con el Mundo.

El segundo índice es índice de dependencia. Es un índice para medir la dependencia comercial de un país UE27 en su comercio con China frente a su comercio con el Mundo.

$$DI_{iE} = \frac{M_{iCH}/\sum_i M_{CH}}{M_{iWorld}/\sum_i M_{World}}$$

El tercer índice se llama índice de ventaja comparativa revelada. En el comercio bilateral entre dos países es la relación entre la Balanza comercial y el comercio total bilateral del sector i.

$$RCA_i = \frac{X_i - M_i}{X_i + M_i}$$

Donde X_i son los exportaciones del sector i, M_i son los importaciones del sector i.

Este índice toma valores entre +1 y -1, reflejando un índice positivo una ventaja y uno negativo la desventaja.

- Si el índice presenta valores entre +1 y 0 estamos ante una situación que refleja que en el país en estudio eses sector es exportador neto. $RCA_i = 1$ refleja especialización (todo el comercio es de exportación). Máxima ventaja;
- Si el índice tiene valores entre 0 y -1 entonces hablamos de un sector importador neto. $RCA_i = -1$ supone no especialización ya que todo el comercio es de importación. Máxima desventaja;
- Finalmente cuando el índice tiene valor 0 estamos en una situación de igualación de exportaciones e importaciones.

Por lo tanto, alcanzarán valores positivos aquellos sectores donde hay ventaja comparativa del país sobre los demás. Valores negativos donde hay desventaja comparativa. De este modo obtenemos la relación de sectores en los que el país cuenta con ventaja comparativa y aquellos otros en los que tiene desventaja.

El cuarto índice es índice de contribución al saldo. La contribución al saldo comercial es un indicador que permite identificar las fuerzas y las debilidades estructurales de una economía a través de la composición de sus intercambios comerciales. Toma en cuenta no solamente las exportaciones sino también las importaciones, e intenta eliminar las

variaciones coyunturales comparando el saldo comercial de una industria con el saldo comercial global.

Puede ser interpretado como un indicador de las ventajas comparativas reveladas porque permite medir el resultado (el saldo comercial) de una industria en relación al resultado (al saldo comercial) del conjunto de la industria.

$$ICB_i = \left[\left\{\frac{X_i - M_i}{X_i + M_i} - \frac{\sum_{i=1}^{n}(X_i - M_i)}{\sum_{i=1}^{n}(X_i + M_i)}\right\} * \left\{\frac{X_i + M_i}{\left(\sum_{i=1}^{n}(X_i + M_i)/2\right)}\right\}\right] * 100$$

Este índice trata de identificar aquellos sectores en los que se asientan el núcleo de las ventajas y aquellos en los que la situación es desventaja. La información de ICB$_i$ es más rica que la del RCA$_i$.

5- ANÁLISIS DEL ESTUDIO

Nuestro estudio sobre las especializaciones y las ventajas de cada Estado europeo en el mercado chino nos ayudan a conocer las características de cada mercado. A través de este estudio, se puede llegar a las siguientes conclusiones:

- China ha experimentado una rapidez de desarrollo económico y social. El crecimiento del PIB en promedio ha sido alrededor de 10 por ciento cada año y ha sacado a más de 500 millones de personas de la pobreza. China se convirtió recientemente en la segunda economía más grande y está jugando un papel cada vez más importante en la economía global. Sin embargo, el rápido ascenso económico ha traído muchos problemas, así como la gran desigualdad; la rápida urbanización; desafíos a la sostenibilidad del medio ambiente; y los desequilibrios externos. China también se enfrenta a las presiones demográficas relacionadas con el envejecimiento de la población y la migración interna de mano de obra. Aunque China sigue teniendo un montón de desafíos y sus reformas de los mercados son incompletos, pero su importancia para la economía mundial no puede ser ignorada.
- La relación entre China y Europa es cada vez más cercana en los últimos años. Como vemos en la figura 3.3 y en la figura 3.4, ambos de los socios comerciales principales de la Unión Europea y China son dos de los primeros tres en la lista.

Hoy en día, La influencia de ambos podría afectar a la situación económica mundial.

- A partir de los resultados del capítulo 4 y 5, hicimos una lista completa (Table 6.1) de todos los países europeos sobre sus especialidades y sus ventajas comparativas en relación con el comercio con China durante el periodo 2008-2012. Las cifras son de dos dígitos de las divisiones de CUCI Rev.3 por los cuales representan a su producto único.

Table 6.1 Complete list of specialization and comparative advantage of EU

	Specialization	Comparative Advantage
EU	21,23,25,26,27,28,57,60,61,68,70,71,72,73,74,77,78,79,80,87,91,93,94	28,71,72,74,78
France	11,21,23,24,25,26,28,61,71,72,73,74,77,79,87	11,71,72,78,79
Belgium	21,23,24,25,26,28,51,56,57,66,68,72,73,74,77,99	28,51,54,57,68
Luxembourg	65,68,72,74,77	65,67,68,72,74,77
Netherlands	09,21,25,26,28,29,51,53,57,61,65,71,72,73,74,77,87	25,28,33,51,57,72
Germany	25,28,52,60,70,71,72,73,74,77,78,79,80,87,94	71,72,73,74,78,79,89
Italy	21,25,27,28,52,53,59,61,68,72,73,74,87	28,72,73,74
UK	21,23,25,26,28,57,68,71,72,73,74,77,78,87,89	25,28,54,71,78,87
Ireland	21,25,26,57,71,75,77	09,21,25,51,54,77
Denmark	01,03,21,24,28,51,62,71,72,73,74,77,87,88,93	01,21,54,71,72,74
Greece	21,25,26,27,28,42,53,61,99	25,27,28,42,99
Portugal	24,25,26,27,28,61,63,72,77	25,27,28,63
Spain	03,21,25,26,27,28,29,51,53,57,59,61,71,72,73,74,87,99	28,57,71,78
Sweden	05,21,25,28,51,67,72,73,74,77,79,87	28,51,54,64,67,72,74,78
Finland	05,21,25,27,28,65,68,71,72,73,74,77,87	25,64,68,71,72,74
Austria	26,58,66,72,73,74,77,79,87	72,73,74,79,87
Estonia	05,28,52,57,73,76,77,87	05,24,28,33,87
Lithuania	05,25,26,28,32,51,59,61,81,82,87,88	05,24,28,82
Malta	25,57,65,75,77	25,65,77
Latvia	05,25,28,32,55,57,71,82,85,87	05,24,28,32
Poland	21,23,28,29,51,68,72,74,81,87	28,51,68
Czech Republic	05,21,25,28,29,52,57,61,71,72,73,74,77,79,87	28,71,72,73,74,78,87
Slovakia	26,72,74,78,85	26,28,58,72,78
Hungary	21,71,73,74,79,87	71,74,78,79,87
Slovenia	21,25,28,51,57,71,73,74,77,87	25,28,57,71,73
Cyprus	25,28,54,71	11,27,28,54
Romania	11,24,27,28,51,53,56,57,58,71,72,73,74,87	24,28,56,62,71,78
Bulgaria	28,51,68,73,87	11,28,68

Source: Self-elaboration data from DataComes

- Los seis miembros más antiguos de la UE, que son Francia, Bélgica, Luxemburgo, Países Bajos, Alemania e Italia, tienen una fuerte especialización en la maquinaria y equipo de transporte. Excepto Luxemburgo, todos los demás están especializados en sectores primarios, como menas y desechos de metales. Sin embargo, cuando comparamos sus especializaciones y ventajas comparativas, estos seis países tienen algunos sectores de ventajas comparativas que no están incluidos en la lista de la especialización. Por ejemplo, "(78) vehículos de carretera (incluso aerodeslizadores)" no está incluido en la lista de especialización de Francia, pero en el mercado chino los automóviles fabricados en Francia tienen una buena reputación; "(67) hierro y acero" de Luxemburgo es su pilar industrial del país, pero sus ratios de especialización fueron siempre un poco por debajo de 1, durante los períodos de 2008 a 2012; los porcentajes de "(33) petróleo" de los Países Bajos estaban subiendo cada año y al final de 2012 fue mayor que 1, por lo tanto este sector es cada vez más fuerte y está en la lista de la ventaja comparativa.
- En 1973, Dinamarca, Irlanda y el Reino Unido se unieron a la UE. Dinamarca y Reino Unido tienen grandes ventajas en las industrias de la maquinaria. Además, la industria del automóvil de Reino Unido es muy poderosa.
- Aunque Grecia no tiene una fuerte industria de la maquinaria, está especializada en las industrias de materias primas y también tiene una ventaja comparativa en el comercio con China.
- Portugal y España se centran en las exportaciones de materias primas. Pero al mismo tiempo, España tiene la ventaja de sus automóviles. SEAT es el automóvil de alto rango en el mercado de China. (Baidu.com)
- Suecia, Finlandia y Austria tienen ventajas en los materiales crudos y maquinaria, sobre todo Austria.
- Estonia, Lituania, Malta, Letonia, Polonia, República Checa, Eslovaquia, Hungría, Eslovenia y Chipre no son como los otros países europeos, ya que tienen menos ventajas comparativas. Excepto Hungría, los demás exportan principalmente las materias primas. Estonia, Lituania, Letonia no tiene "(24) corcho y madera" en sus listas de especializaciones. La razón es porcentajes inestables de especialización. Por ejemplo, en el año 2008, Lituania tenía 0,54 y hasta el 2011 se extendió a 23,86 y cayó de nuevo a 13,61 en 2012. "(28) menas y desechos de metales" no aparece en el lista de la especialización se debe a que

sus importaciones procedentes de china son 0, así que tiene una ventaja comparativa en el comercio con China. Lo mismo sucedió a la República Checa y Hungría en los "(78) vehículos de carretera (incluso aerodeslizadores)", sus exportaciones son mucho mayores que sus importaciones.

- Rumania tiene una gran especialización en el sector de los productos químicos. Por otro lado, Bulgaria no tiene demasiados sectores en la lista de la especialización. "(11) Bebidas" de Bulgaria estaba aumentado sus ventajas cada año durante el período de 2008 a 2012. "(78) Vehículos de carretera (incluso aerodeslizadores)" no está incluido en la lista de especialización, pero es una ventaja comparativa en el comercio con China, debido a que mucha de la industria rumana de fabricación consiste en plantas filiales de empresas extranjeras.

- El pilar industria principal de la Unión Europea en relación con el comercio con China en 2008-2012 es de maquinaria y equipo de transporte. Mientras tanto, hay muchos países que se centran en la exportación de sus materias crudo a China. "(54) productos medicinales y farmacéutico" está en la lista de la ventaja comparativa en muchos países, como Bélgica, Reino Unido, Dinamarca y Suecia. Eso es una nueva industria exportadora importante y cada vez es más fuerte su especialización.

- Aunque salen los productos especializados, eso no significa que todos estos productos deben ser ventaja comparativa en la relación comercial de China. Además, debemos fijar las diferencias de índice de especialización e índice de contribución al saldo. Porque el índice de especialización tiene solo su visión desde exportación de un país fijo compara con las exportaciones con el mundo. Sin embargo, el índice de contribución al saldo no solo tiene en cuenta su exportación sino también en sus importaciones con el país asociado. Por lo tanto, podemos ver hay más productos en la lista de especialización que la de ventaja comparativa.