



The Relationship between the Maritime Transport and the Chinese FDI

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Abstract: This paper describes the importance of maritime transport to be essential for the understanding of China- Hungary and – in a wider perspective – China-EU relations. Due to its geographical position Hungary has good chances to operate as a logistics center, however, this will require significant investments. The examination of the characteristic of the ports in Central and Eastern Europe also pointed out that there is a need for regional cooperation between countries. The study also highlights the abilities which need to be developed to attract FDI. Because of Chinese export subsidies the imports are expected to rise, going on with challenges to the host countries therefore the assessment of the issue is highly relevant.

1 Introduction

It is feasible to report Chinese investment outflow on a global scale after Deng Xiaoping's open door policy in the 1970s. Since 1980 through nearly a decade it steadily increased but afterwards in order to avoid losses of the previous range of transactions, the Chinese government tightened the investment outflow. However, the slowdown only reflected a slowing rate of the increase and not a decline. Over the following decade the Chinese FDI was primarily targeted at Asia greatly fostered by the Southeast Asian crisis in 1997. In 2002, under the decision of the Communist Party Congress the FDI was liberalized again starting to grow significantly and this trend continues to this day. As a result the Chinese FDI has increased by more than twenty times since 2000.

Europe's significance has grown only in the recent decades but the old continent is still not targeted by the Chinese FDI. Primarily China is interested in those countries either where significant raw materials and energy resources are located or there is a strong advanced technology. On this basis Africa, Southeast Asia and Latin America have benefited from that advantage over the past few years. The Hungarian situation is

especially favorable among the recently joined countries to the European Union mainly due to its geographical location and its China-friendly policy.

According to the experience from the recent years China is reported to invest in sectors and regions which either directly promote the economic development of this vast Asian country or strengthen its international role politically [Artner, 2009]. The condition of the Chinese FDI is to realize countries and companies being open for the cooperation with the Chinese. Countries recently joined to the European Union can offer their knowledge and a market access to the EU in exchange for the Chinese FDI. Therefore a key issue is EU-China relations which are becoming more intense due to the different sectoral cooperation and the Chinese crisis management in some countries.

As the Central and Eastern European region has not been included among the most important economic and political priorities for the last twenty years, the Hungarian government has taken steps to set up a business environment being suitable to Chinese business sector. It should be noted that some similar countries like Hungary have also deep connections such as Czech Republic, Slovakia, Poland and Romania. There are signals revealing that the competition for the Chinese FDI on a regional scale is becoming fiercer consequently, much greater efforts are needed by Hungary to remain more competitive in a long run than any other states in this area. The Hungarian reputation is said to be positive in the region as well as the fact that the initial strategic steps towards China have been carried out.

Although its significance cannot be compared to the investments in Hungary managed by other world powers but the Chinese FDI has undergone a substantial development. Since a rivalry is going on for the FDI in the region, it is essential to know those capabilities which have to be increased in order to improve the FDI attracting ability. The recent study focuses on the marine transport logistics to be just one piece of the Hungarian-Chinese relations though it is an important area considering the fact that the Chinese economy is still strongly dependent on exports and the EU has become the main importer of the Chinese goods.

Two hypotheses will be examined in the study. According to the first hypothesis the Chinese goods linked to marine transport are imported by Central and Eastern European countries primarily where a relatively large population and market exist. Regarding these factors Poland and Romania stand out among the Central and Eastern European states, therefore it is assumed that most of the goods are delivered to these countries.

China has applied an export driven model since 1979 which has been very successful [Inotai, 2010]. China has become the world leading exporter as a consequence of a powerful export led growth achieved for three decades. Based on this it is supposed in the second hypothesis that a correlation exists between the domestic Chinese FDI stock and the import linked to maritime transport. Presumably, by the development of FDI stock in Hungary the import started to increase as China significantly fosters its export driven strategy by direct and indirect instruments.

2 The characteristics of the maritime transport

One of the most challenging and the potent area is undoubtedly the maritime transport logistics. Hungary has no sea therefore it has river and combined transshipment capacities. Considering the fact that the Chinese goods are delivered from the European ports immediately to their destination, Hungary should focus on the goods transfer [Novák-Túry, 2009]. It also should be considered that the Hungarian entrepreneurs could participate in the expansion of the seaport capacity and services since unloading logistics as well as domestic distribution and transport capacity together can guarantee that Hungary can take advantage of its geographical position.

It would greatly facilitate the establishment of a logistics center if Hungary were able to succeed in convincing several large companies that it is able to act the part of a base regarding the Chinese products sold in the European market. The idea to set up a modern logistics center arose previously. It happened not only because of the increasing sales of Chinese goods since it could also have several benefits in general as it could [MLBKT manuscript, 2005]:

- make the Hungarian firms more competitive
- stimulate FDI
- create jobs
- develop the infrastructure
- provide an opportunity to reduce regional disparities of a country
- contribute to carrying out some mitigating solutions due to environmental impacts of the intensity of freight flows

Over the recent years, almost all Central and Eastern European countries have opened towards China realizing the potentials in the Chinese collaboration. The accelerated process, the rising demand and the strong competition resulted that the Hungarians should make more and more efforts to achieve that goal.

	2005	2006	2007	2008	2009	2010	2011
Bulgaria	2	224	238	23	2	6	37
<i>Burgas</i>	2	211	234	6	2	6	36
<i>Varna</i>		13	4	18			
Croatia	444	488	995	696	140	228	253
<i>Rijeka</i>	280	428	708	548	140	228	253
Poland	33	66	220	18	10	1 072	1 642
<i>Gdansk</i>		10	123	4	6	1 072	1 610
<i>Gdynia</i>		36	86	4	2		32
Romania	290	57	88	618	146	129	142
<i>Constanta</i>	290	57	88	618	112	110	142
Slovenia	136	232	499	370	191	442	653
<i>Koper</i>	136	232	499	370	191	442	653

Table 1

Most significant ports in the region in terms of traffic by the goods dispatched in China, 2005-2011
(thousand tons) Eurostat, 2013

The above chart reflects the volume of the cargo dispatched in China¹ and unloaded at a port² in Central and Eastern Europe. It would be beneficial for Hungary to establish partnerships with Central and Eastern European countries with seaports, as China has not reached its peak performance therefore a further imports growth are expected in the region. Hungary could play a key role in the transmission of the goods from the ports in the Nordic countries to the South as well as from the Southern regions to the North and East.

According to the hypothesis it was expected that the Chinese goods are mostly delivered to sea countries having a major market and population in the region. The hypothesis was partly fulfilled, as Slovenia and Croatia also reached more turnover than Romania, however, Poland can show far the highest imported volume.

The authors Novák-Túry carried out some calculations searching the most ideal port in terms of time, distance and volume regarding the goods delivered to Hungary. They concluded that the most appropriate port is Gdansk in Poland, as it is easily accessible by rail and road as well as Hungary plays an important role in the North-South transport. It would be useful to develop a region-wide cooperation since the future investments may promote the essential parameters (time, traffic) and a port can be revalued more.

1 excluding Hong Kong

2 according to Eurostat the Baltic states received very small quantity of goods on an international scale

Regarding the maritime transport, the sub-categories by cargo type distinguished by the European Union are as follows:

- dry bulk goods (e.g.: ores, grains)
- liquid bulk goods (e.g.: crude oil, chemicals)
- mixed cargo including Ro-Ro cargo, other mixed cargo and containers

	Containers	Dry bulk goods	Other mixed cargo	Total
Bulgaria	2		35	37
Croatia	252		1	253
Poland	1 610		32	1 642
Romania		126	16	142
Slovenia	652		1	653

Table 2

Most significant ports in the region in terms of traffic by cargo types by the goods dispatched in China, 2011
(thousand tons)
Eurostat, 2013

Regarding the goods dispatched in China, the container traffic is the most significant. Container shipping is a multimodal transport system meaning that it can be managed by all possible modes of transport (rail, road, water). In the seaports the goods are transloaded to a mode of transport and unloaded at the premises. 90% of the container traffic is transported by maritime transport representing cheap mass products [Fleischer, 2008]. Due to the shortage of statistical data, the rate and the commodity structure of the imports transported by the sea can be only estimated.

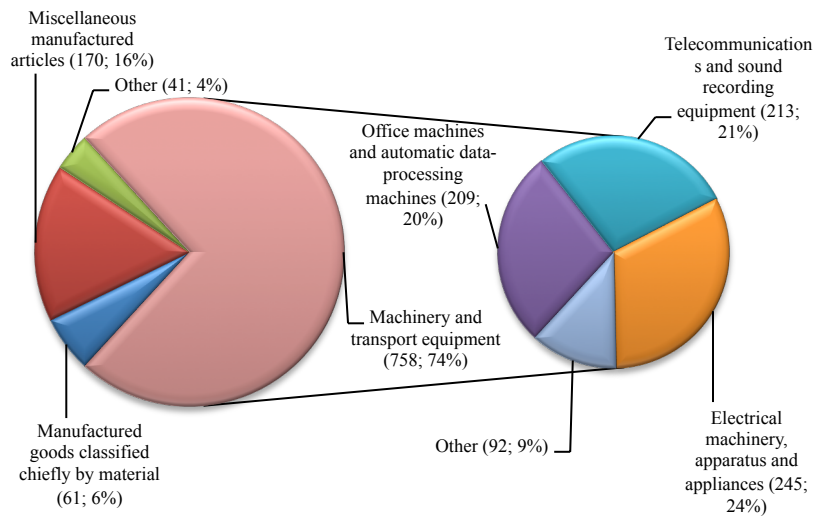


Figure 1
The Hungarian import structure with China according to SITC Rev. 3 nomenclature, 2000
(million EUR and share)
Eurostat, 2013

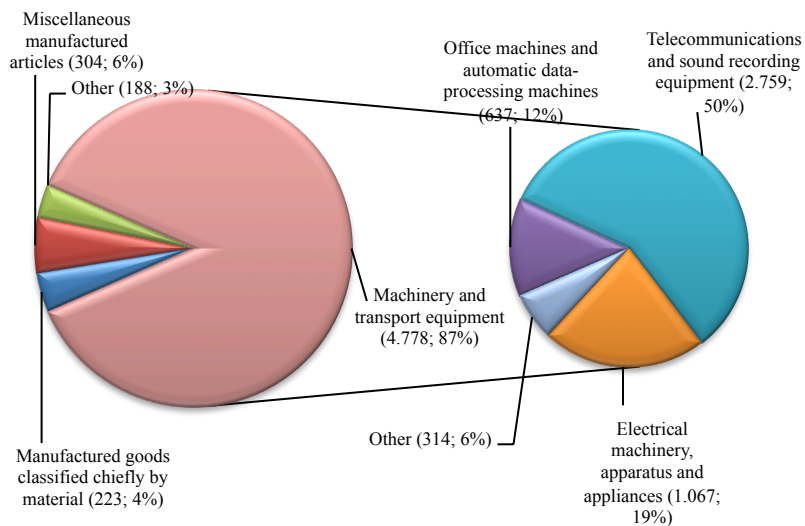


Figure 2
The Hungarian import structure with China according to SITC Rev. 3 nomenclature, 2012
(million EUR and share)
Eurostat, 2013

The value of imports from China has quintupled and at the same time the volume has doubled since 2000. In essence, the machinery and transport equipments have always been dominant within Chinese import structure and this trend has become more significant over the time. The import share of the manufactured goods as well as the machinery and transport equipment together accounted for 96% of total value, 77% of total volume in 2000 and 97% of total value and 91% of total volume in 2012. During the examined period the share of the machinery and transport equipment has grown. While earlier apparel goods and confection had been prevailing within the manufactured goods, today the commodity structure moved towards more labor-intensive products. In the machinery and transport equipment category telecommunications and sound recording equipments are prevailing (50% of the total import in 2012).

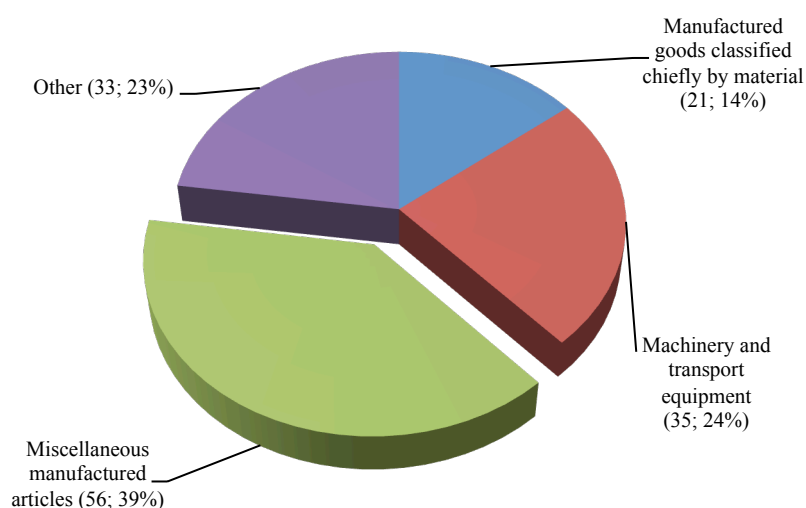


Figure 3
The Hungarian import structure with China according to SITC Rev. 3 nomenclature, 2012
(million EUR and share)
Eurostat, 2013

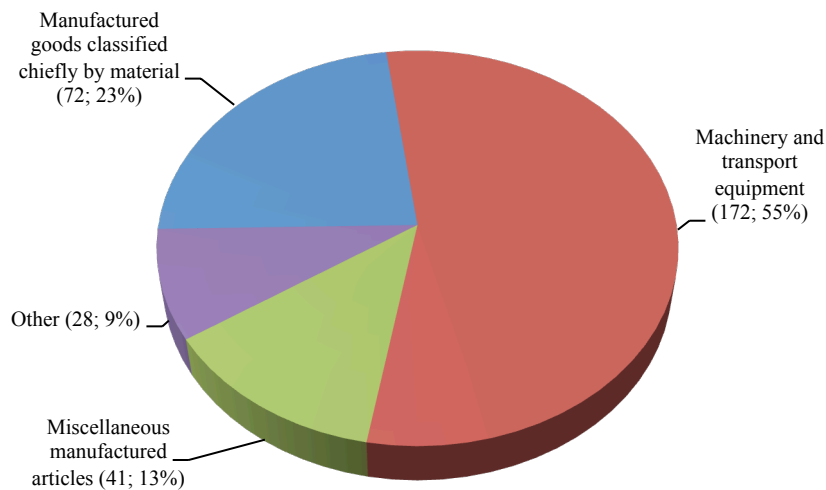


Figure 4
The Hungarian import structure with China according to SITC Rev. 3 nomenclature, 2012
(thousand tons and share)
Eurostat, 2013

The deficit in the domestic trade is caused by the level of machinery and transport equipment so it would be certainly desirable to improve the domestic export capacity in Hungary by increasing exports rather than reducing imports. These types of products are mainly imported to assemble lower value-added articles and they are exported within a short period of time afterwards. There is a massive potential in this sector therefore Chinese FDI can also participate in the manufacture of the goods from the Asian country and production cooperation could provide a framework. The most relevant products belong to electronics, telecommunications, machinery, plastics, chemicals, textiles and footwear sector [Csirikusz, 2011]. First of all the imported raw materials, semi-finished products are converted to finished products and exported to other countries afterwards. Essentially a significant share of import leaves the country since on one hand a part of the components are installed, on the other hand some imported goods are transferred to other countries³ after customs clearance and storage [Juhász, 2007]. The process could not be realized without adequate capacity and expertise therefore the quality of the education and capitalization play an essential role.

The primary driver of the Chinese economy is trade. Exports are also stimulated by an artificially undervalued renminbi. Virtually it can be considered as a hidden aid outside the state budgets [Botos, 2007]. Although renminbi has been revalued slowly against the dollar since 2005, however, in order to reach a fair market price a revaluation of

3 tasks related to logistics center

Chinese national currency would be still required by 30% [Bergsten, 2008]. It is likely that this situation is not going to happen anytime soon due to several factors such as low domestic consumption and high level of forced savings. The amount of the accumulated savings can be generated by the non-existing or non operating pension system and social network [Gábor, 2009]. As a consequence, Hungary can continue expecting Chinese exports to grow fostered by investments from China either. In the context of this type of investment, a recently announced development fund about a billion Hungarian Forints can be mentioned to be available to the members of the Hungarian SME sector to purchase and distribute Chinese products.

Regarding the maritime transport from China to Europe the average time is 36 days and the transport of a ton of freight costs \$167. According to Chinese ideas alternative routes are required to ensure a smoother and cheaper transport of the Chinese goods. The solution is to develop the old Silk Road where the goods could be forwarded through by rail just in 12 days with a cost of \$111 per ton⁴. Currently the project is still in early stage and the experts have to face several other problems such as underdeveloped rail network as well as tax and custom related administrative obligations.

If the above-mentioned obstacles were eliminated, the road transport could be a major challenge to the maritime transport. The Silk Road has not been functioning for more than one-half decades so the transport is fully placed to the seas [Imre, 2010]. However, due to the increase of oil price and security risks the importance of road transport is expected to grow then. Other reasons can be mentioned like the throughput of the channels and canyons, the shortage of port infrastructure, the inadequacy of the access to ports on ground, the lower price levels of the road transport and last but not least the tradition from the bygone days. Based on current trends, maritime transport will not be able to meet the requirements of the transport independently.

The annual level of Chinese FDI stock grew by more than eight times between 2001 and 2011. After the global economic crisis the FDI stock began to fall in the share of import so the development of the FDI stock was lower comparing to the evolution of the import. While examining the relation strength between import and FDI stock, the Pearson correlation coefficient was 0,971 and the R^2 was 0,944 so a particularly strong correlation was observed. As a consequence the second hypothesis has been verified so there is a correlation between FDI stock and import.

4 Central Europe Watch: China's new Balkan's strategy

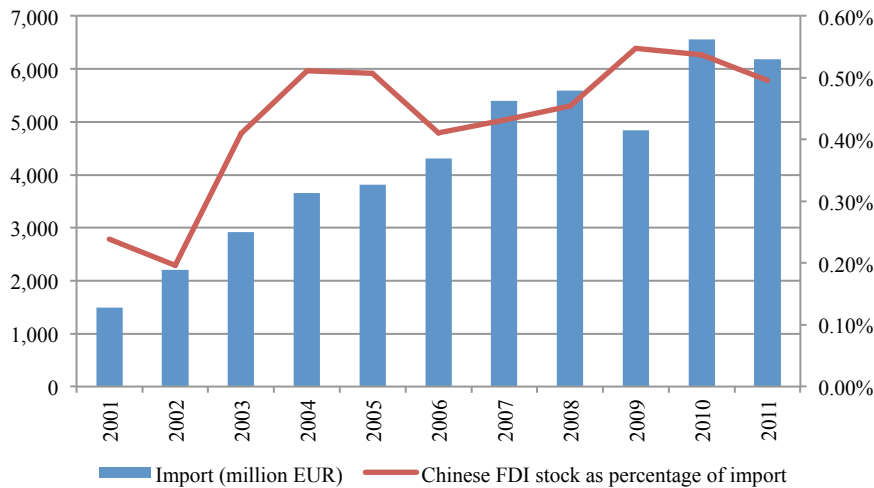


Figure 5
 Chinese FDI stock as percentage of Chinese import in Hungary, 2001-2011
 Eurostat, the Central Bank of Hungary, 2013 (own calculations)

3 Guidelines to develop the FDI attracting ability

Hungary and other Central and Eastern European states have to recognize the fact that the structure of global economy is undergoing substantial changes and to look for opportunities in this new situation in order to be adequately prepared for the new challenges in the 21st century. It has to be realized what factors are preferred by the Chinese FDI to understand the process and to take measures based on these information. A region-wide logistics center could be definitely useful, however, the above mentioned regional cooperation has to be carried out first of all.

Market-based developments are required ensuring sustainability and return of the investments. Due to the fact that the execution is based on market principles, internal development, know-how, openness are required from the domestic entrepreneurs. Ultimately these businessmen are the ones who will take the risks and this will define that how a country will be attractive to the Chinese investors. Participation of the state is necessary in certain areas [Gelei-Halászné, 2006]:

- implementing straightforward communication about the establishment of the logistics centre and the importance of the cooperation with China
- establishing strategic partnerships

- setting up of proper environment for the investors in order to provide a service to the clients on an international level
- providing relevant tools for the domestic logistics providers
- improving the competitiveness of state-owned enterprises
- stimulating the demand for the Hungarian logistics services
- harmonizing the regional transportation and developments between the partner countries
- supporting prioritized projects by the state
- modernizing public administration (e.g.: modern custom clearance)

However, the list could be also supplemented by education to be very important factor. Virtually it is not feasible to achieve competitive logistics without a professional staff. At present, logistics trainings are satisfactory in higher education so a rising generation of junior managers exist in Hungary. The problem appears in the vocational education therefore in order to resolve it a variety of training programs have been launched in recent years allowing the acquisition of modern logistics, language and computer skills. To make a good bargain, it is essential to be aware of other elements like Chinese characteristics, culture, psychology, society, language etc.

Detailed statistical database also belongs to the areas to develop. The decision-makers could be supported by data, information, knowledge, processes and methods, however, to achieve this more detailed information is needed. In the present study only Eurostat data was used since it has proved to be the most suitable for the monitoring of the processes and last but not least it enabled to compare the countries by the same statistical methodology.

Unfortunately the importance of China is still not taken seriously enough even on micro and macro level in Hungary. Very little is spoken about Chinese relations and their development. There is a shortage of experts though it is not China but in Hungary where a proper partnership is really essential. Unfortunately the lack of knowledge of the Hungarian population blocks the cooperation thereby defining the business community's attitude as well. Proper preparedness requires some time and investment with the result therefore many Hungarian entrepreneurs give up at the first hurdle or they do not even start since the almost limitless potential of this Asia-Pacific country is unrealized.

Conclusions

In recent years the increased demands for Chinese goods and an expected further development have been establishing a claim to the logistics industry and its development needs more investments. To handle the challenges, there is need for a Central and Eastern European cooperation and a strategic collaboration. To increase FDI attracting ability is a key issue for Hungary to remain competitive and to properly meet the requirements of providing services of a logistics center.

Studies by experts also point out the fact that Hungary has very good chances to become a logistics center in Central and Eastern Europe. However, functioning⁵ as a gate to

5 the primary objective was to avoid protective tariffs

Europe emphasized after the political system change has lost its significance. The root causes derive from global economic crisis since China has acquired considerable Western European interests during that time. Due to the crisis, the Western European countries considered China as an ideal investor consequently liberalizing their markets as a sign of the approach and terminating the restrictions against Chinese goods. In conclusion, the Hungarian role to be a gate to Europe has almost no reality nowadays [Tarrósy-Vörös, 2013].

By significant state involvement, Hungary can take an advantage of its geographical position. In any case, such activities are required which would mean a major added value to China compared to other countries in the region (a regional service center may be appropriate). Hungary could have an advantage over the other Central and Eastern European countries since it developed the strategic plans of the Chinese economy previously and began their implementation earlier than the other countries in order to provide a more attractive business environment to the Chinese FDI.

In case of investments in Hungary, the primary Chinese idea is to found joint ventures first of all so the Hungarians are counted upon in the implementation of the projects. Good partner relationships and alliances play an extremely important role in today's global world and this fact also has to be realized by the Hungarian businessmen. The development of marine transport could be a good example for the cooperation at regional level. Besides the fact that Hungary is increasing its FDI attracting ability, there can be closer relationships with other countries in the region and it definitely can be fruitful for Hungary and the European Union as well.

Two hypotheses have been tested in the present study. The first hypothesis was partially verified since there was no evidence that the countries bordering sea with higher population and market imported more Chinese goods. Regarding the import linked to maritime transport the analysis also showed that Poland, Slovenia and Croatia play the most important role in the region. In the second hypothesis it was formulated that a correlation exists between Chinese import to Hungary and the domestic Chinese FDI stock. The test results showed a strong correlation between the two indicators so the hypothesis proved to be correct.

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