# INTERNATIONAL TRADE IN LOGISTIC SERVICES IN CEFTA 2006 COUNTRIES

**Aleksandar Trajkov– Jovanka Biljan**

**Abstract**

Logistic industry is one of the leading world industries, which has respectable influence on world economic flows. There are many indicators that confirm the importance of logistic industry in certain country or region. One of those indicators is international trade in logistic services, expressed by all international transactions of a country made on logistic services.

It is difficult to determine the effects of logistic services on balance of payment because of the complexity of logistic industry as well as the lack of necessary data. This paper through extensive analyses of the international trade flows in logistic services emphasizes the importance of the logistic industry in the CEFTA 2006 region. The obtained findings and results, as well as the recommendations that arise from the research, can be used to improve the overall condition of the national economies in CEFTA 2006 and to create the strategy to liberalize logistic services trade on regional level.

**Key words:** logistic services, international trade, CEFTA 2006

**JEL Code:** F 10, F 15

## Introduction

Trade logistics is one of today's leading industries which has a great impact on world economy. Generally, trade logistics which encompasses an array of actions, from transportation, consolidation of cargo, warehousing, and border clearance to in-country distribution and payment systems (Jean-François Arvis, 2012), globally was valued 3.5 billions USD in 2005 (ICRIER, 2008). Additionally, logistic expenditures represent 10-15% of the total world GDP (ICRIER, 2008). The importance of logistic and transportation costs for international trade flows is often analyzed in many research papers (see: Joseph and Hoekman, 2012; Hummels, 2007; Hummels and Lugovsky 2006; Klark & others, 2004; Andreson & van Wincoop, 2004). The factors that determine trade flows are also analyzed by Helphman, Melitz and Rubinstein (2008).

One of the data sources that can express economic importance of trade logistics is the national balance of payments (BOP) where all transactions with foreign countries are registered including those for logistic services. The great influence of trade logistic services on BOP position in many countries directly determines their external liquidity. In general, BOP position reflects the real economic situation of a country. Also it is well known that trade logistics, through revenues that are realized on a basis of hiring domestic logistic operators by foreign entities, could play significant role in increasing the income of the country. In fact, the impact of trade logistics on national BOPs depends on productive capacities of a country as a function of its geographical, economic, technical, social and other characteristics, on one side, and the level of development, on the other side.

The trade in logistics services in CEFTA 2006 countries will be analyzed by using available data from the BOP statistics, starting from 2007 when all members ratified this regional agreement. As indicators of the value of trade in logistics services in the CEFTA 2006 member – countries, the total exports, imports, trade and trade balance of logistic services will be used. The dynamics of international trade in logistic services will be determined through calculation of chain base indexes. Also, the structure of international trade in logistic services in CEFTA 2006 will be made by modes of transport and by countries. The analyses will be focused firstly, on international trade in core logistic services, according GATS W/20 classification list, and secondly, on international trade in related logistic services in the CEFTA 2006 member – countries.

## 1. Methodological issues in logistic services trade balance's analyses

Logistic services, as a wide set of activities, should be correctly identified in order to make proper analyses on logistic services trade. Differences in data collection methodology in different statistical reports, as well as a correct identification of the activities that are considered as a part of logistic services could be a problem. The main reason of the occurrence of this problem is that logistic services are not categorized as a specific service sector in United Nations Central Product Classification (UN CPC). Also, logistic services are not defined as a separate category of services under General Agreement on Trade in Services (GATS) Classification list W/120. Hence, for the purpose of this overview of logistic services, the trade activities suggested in the Checklist of logistic services TN/S/W/20 that is a part of the GATS proposal of the so-called group "Friends of Freight Logistics" will be used.

According to the Freight logistic checklist TN/S/W/20, logistic services are divided into 3 main categories: core, related and non-core freight logistic services (Table 1). It allows easy identification of logistic services that can be recognized in national BOP statistics, according to their description and CPC codes. Still, there it is a difficulty finding the correct identification as data in national BOP statistics are not given exactly according to the GATS list of logistic services TN/S/W/20. It is almost impossible to identify the share of noncore freight logistic services and other related logistic services on total logistic services trade, as these activities are not part of the logistic sector only. On the other hand, all core logistic services and part of the related logistic services related to freight transport are generally considered as a part of the logistic sector, and for that reason when analyzing logistic services trade balance an emphasis will be put on them.

**Table 1: Types of logistic services according Freight logistic checklist TN/S/W/20**

| Group | Description and W/120 category | CPC Codes |
|---|---|---|
| **Core freight logistic services** | 11.H Services auxiliary to all modes of transport | |
| | a. cargo handling services | 7411,7419 |
| | b. storage and warehousing | 742 |
| | c. transport agency services | 748 |
| | d. other auxiliary services | 749 |
| **Related freight logistic services** | (1) 11.A Maritime transport services | |
| | 11.B. Inland waterways transport | |
| **(1) freight transport** | 11.C Air transport services | 732,734 |
| | 11.E Rail transport services | 7112 |
| | 11.F Road transport services | 7123 |
| **(2) other** | (2) 1.F.e. Technical testing and analyzing services | 8676 |
| | 2.B. Courier services | 7512 |
| | 4.A. Commission agents services | 621 |
| | 4.B. Wholesale trade services | 622 |
| | 4.C. Retail trade services | 631,632,6111,6121 |
| **Noncore freight logistic services** | 1.F.c and 1.F.d. Computer, management consulting services | 865,866 |

Source: WTO, Logistics services, TN/S/W/20, WTO, Geneva, 25 June 2004, pp.5-7

Beside this, some other methodological issues must be considered when analyzing data for logistic services trade taken from BOP. For example, some significant categories can be not covered in appropriate BOP statistic item because it is hard to identify their real purpose such as: import of equipment, goods and services for logistic sector development, interest and payments for foreign loans used in logistic sector, payments for foreign staff and profit repatriation of foreign logistic operators, dividend for foreign stakeholders in logistic companies, expenses for promoting the domestic logistic sector in foreign countries etc (Trajkov & Biljan, 2011). Therefore, when analyzing data from logistic services balance of payments, incomes realized on a basis of hiring domestic logistic operators by foreign entities and outcomes when domestic companies hire foreign logistic operators are considered.

## 2. Services sector in the CEFTA -2006 region

Services sector is becoming very important for the national economies of the CEFTA 2006 countries. Following the general trends, data for CEFTA 2006 countries shows that services sector average growth rate is higher than national economies average growth rate. Nowadays, services account 2/3 of Gross Values Added (GVA) in the region (Handjiski & Sestovic, 2010). The CEFTA 2006 consisted of middle income and low income countries. The share of services in middle income countries GDP is about 53%, and the share in high income countries is about 73% of GDP (World Bank, 2010).

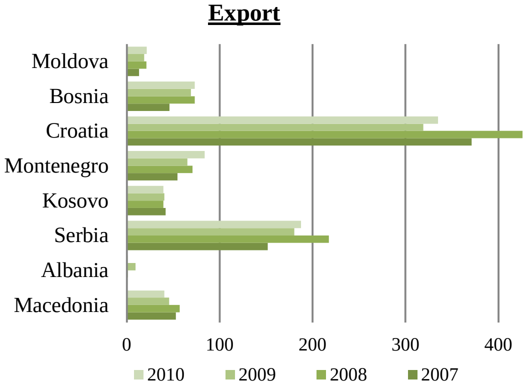
Importance of services sector can be also indicated by the increased trade in services in the CEFTA 2006 countries. Calculations made by Handjiski and Sestovic (2010) shows that average services export and import in the CEFTA countries in 2007-09 period, exceed 10% of GDP, which is similar to the EU countries‘ average. Services have also increased their share in total international trade of the countries in this region in the period 2000 - 2008. For illustration, the share of services in total international trade in Albania increased from 23,7% in 2000 to 39,5% in 2008; in Croatia from 27% in 2000 to 28,4% in 2008; and in Serbia and Macedonia from 16,5% and 16,2% respectively in 2000 to 21,6% in 2008. The share of services export in CEFTA region in 2006 – 2009 period was 36,10% of the total export, and the share of services import in the same period was 15,29% of the total import (ECORYS ICS Consortium, 2010).

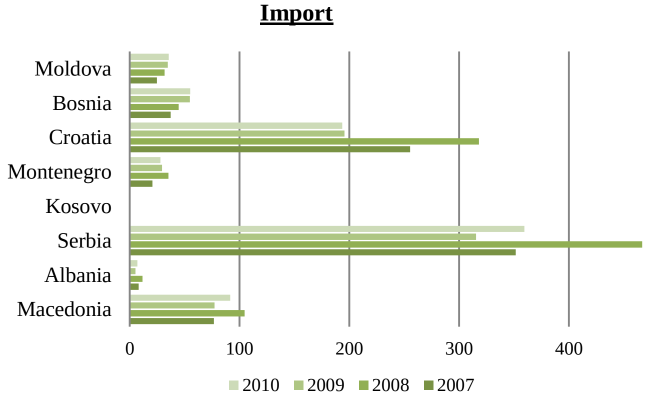
## 3. Trade in core freight logistic services in the CEFTA 2006 region

The analysis of the logistic services in the CEFTA 2006 countries based on BOP data show a constant growth of trade in core freight logistic services before the global economic crisis. For example, the export of core logistic services of CEFTA countries increased 24% in 2008 compared to the previous year. The period of the global economic crisis is characterized with core logistic services export decline of about 17% in 2009 compared to the 2008. But still, data show a slight recovery of the export in 2010 as it increased 4% compared to the previous year (fig. 1). The economic crises influenced the import of core freight logistic services even more. The import of these services had a large decline of over 30% in 2009 compared to the previous year. To sum up, all these changes caused a positive trade balance of core logistic services at the CEFTA 2006 countries which is still occurring nowadays (see data in fig. 1).

Changes in the value and dynamics of export and import growth of core logistic services in the countries in the CEFTA 2006 region are illustrated in figure 1. Croatia is the top exporter of these services sharing 43% of the total export of core logistic services in the region, followed by Serbia with 24%. Montenegro and Bosnia and Herzegovina and Herzegovina share 11% and 9% respectively in the total export of these services followed by Macedonia and Kosovo with 5% each. Moldova shares only 3% of the export of core logistic services in the region and the Albanian export is insignificant.[1] At the same time, as seen from the figure 1, Serbia is the top importer of these services in the region followed by Croatia and Macedonia. As illustrated, positive trade balance in core logistic services refers mainly to the good performance of Croatian logistic operators. Only Serbia, Macedonia and Moldova have negative core logistic services trade balance, which indicates that domestic companies in these countries prefer to outsource core logistic services to foreign logistic operators. It also points out that foreign companies have low level of confidence to logistic operators from these countries when outsourcing these services. It is interesting to reveal that Kosovo in its BOP has only recorded export of core logistic services in air transportation, and has not recorded import of such services in any mode of transportation.

**Figure 1: Export and import of core freight logistic services in the CEFTA 2006 countries in million USD.**




Source: Own interpretation based on IMF Balance of payment statistics online data, last retrieved on 01.11.2011

The analyses of trade in core logistic services of CEFTA 2006 member – countries will be more complete if the different transport modalities are included. Figure 2 illustrates the share of different transport modalities in the total trade of core logistic services of the countries in this region. Land transportation, with 52% in exports and 57% in imports, is the

[1] Own calculation based on IMF Balance of payment statistics online data, last retrieved on 01.11.2011

predominant mode of transportation in all countries in the region. Our calculations indicated that this situation does not correspond with general trends or the trends in the EU, where the share of export and import of core logistic services in maritime transportation is about 2/3 of the total export and import of these services.

The top exporters of core logistic services in land transportation are Croatia and Serbia, followed by Bosnia and Herzegovina and Montenegro. The top importer of these services, by far is Serbia, which suggests that Serbian companies usually outsource core logistic services to foreign logistic operators when transporting the goods in land transportation. The research showed that the import share of core logistic services in land transportation of Macedonia, Croatia and Bosnia and Herzegovina is significant compared to the other countries in the region, but it is still lagging behind the import of these services in Serbia. Because of the high level of trade cooperation among the countries in the region, a great share of export and import of core freight logistic services in land transportation goes to intra-trade among the CEFTA 2006 members.

**Figure 2: Share of different transport modalities in export and import of core freight logistic services in the CEFTA 2006 countries in 2010**


Source: Own interpretation based on IMF Balance of payment statistics online data, last retrieved on 01.11.2011

The analyses of trade in core freight logistic services in maritime transportation show that the top exporter of these services is Montenegro, due to the port in Bar which is one of the biggest gates for entering the goods in the CEFTA region. It means that on this port, most of core logistic services are provided by Montenegrin logistic operators. Despite the fact that Croatia has got the longest seaside and therefore the biggest number of sea ports, it is the top importer of core logistic services in maritime transportation. It indicates that on its ports, core logistic services are generally provided by foreign logistic operators. Albania has also access to sea and the import overlaps the export of core logistic services in maritime transportation. Still, their values are not very significant which points to a conclusion that Albanian ports, especially freight port in Dures, are not quite developed and competitive as ports in the other

CEFTA 2006 countries that have access to sea. Furthermore, freight port services in Albania are generally provided by foreign logistic operators.

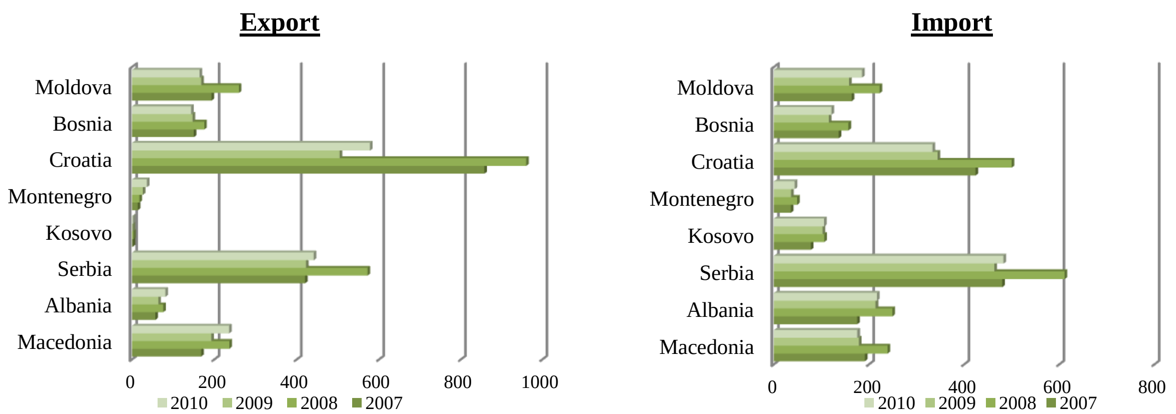
Croatia, Serbia and Kosovo are the top exporters of core freight logistic services in air transportation. At the same time, Serbia and Croatia are the top importers of these services (Trajkov, 2012), which leads to a conclusion that these two countries have developed air corridors and connections to other countries, and also, domestic companies often outsource core freight logistic services in air transportation to foreign logistic operators, on one, and foreign companies use core logistic services of domestic logistic operators, on the other hand.

## 4. Trade in related freight logistic services in the CEFTA 2006 region

The analyses of trade in related freight logistic services confirmed the constant growth of the total trade in these services in the CEFTA 2006 countries before the impact of the global economic crises. The value of the total trade in related freight logistic services increased by 25% in 2008 compared to 2007, but as a result of the crises, it decreased by about 30% in 2009 compared to the previous year. There was a slight recovery of 6.6% in 2010 compared to 2009.[2]

The total trade in related freight logistic services exceeded the total trade in core logistic services in the CEFTA 2006 members in the analyzed period. The calculations show that the related freight logistic services represent 68% of the total trade in logistic services and the core freight logistic services participate with about 32%.

**Figure 3: Export and import of core freight logistic services in the CEFTA 2006 countries in million USD**




Source: Own interpretation based on IMF Balance of payment statistics online data, last retrieved on 01.11.2011

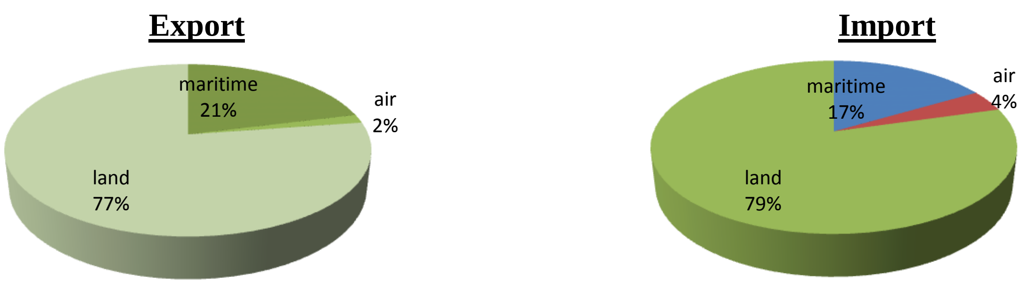
[2] Own calculation based on IMF Balance of payment statistics online data, last retrieved on 01.11.2011

Changes in values and dynamics of growth of the export of related freight logistic services in the CEFTA 2006 members are illustrated in figure 3. The top exporters of these services in the CEFTA 2006 region are Croatia and Serbia.

The global economic crises had a negative impact on the export of related logistic services of the countries in the region, which resulted for example in halving the export of these services in Croatia. The positive overturn in 2010 when the export of these services increased, was not high enough to excel the value in 2008 (fig. 3).

The top importers of related freight logistic services were the countries that had the highest values of the export of these services as well. The only difference regarding import is that Serbia is ranked higher than Croatia. High import values in related logistic services have also been registered in Macedonia, Albania, Moldova and Bosnia and Herzegovina. Same as the export, the value of import of these services in the CEFTA 2006 countries had a decline during the global economic crises. As it can be noticed from the figure 3, due to the higher values of the export than of import of related freight logistic services, the CEFTA 2006 members achieved positive balance in trade with these services. Croatia had the most significant results of trade in related logistic services. For example, this country has registered $460 millions trade surplus in these services. Bosnia and Herzegovina and Macedonia also have achieved trade surplus in these services. On the other hand, Albania, Kosovo and Serbia have high deficit in trade in related logistic services in the analyzed period. Montenegro and Moldova have achieved balanced values of export and import of related logistic services.

**Figure 4: Share of different transport modalities in export and import of core freight logistic services in the CEFTA 2006 countries in 2010**




Source: Own interpretation based on IMF Balance of payment statistics online data, last retrieved on 01.11.2011

More than three quarters of the total export and the total import of the related freight logistic services were realized by the land transportation (fig. 4), which shows that the CEFTA 2006 members mostly use road and railway transportation in international trade of goods. The maritime transportation accounts 21% and 17% share of the export and the import of related freight logistic services, respectively. Compared to the share of the other transport modalities, the share of air transportation in the CEFTA 2006 region is insignificant.

The value of the land transportation services' export in the CEFTA 2006 members exceeded the value of their import. The top exporter of land transportation services in the region was Serbia, and at the same time the top importer of these services registering slight positive trade balance. Croatia and Macedonia had high values of the export of related logistic services in land transportation. Additionally, Macedonia registered high surplus in related trade balance. Moldova and Bosnia and Herzegovina also had considerable values of the export of land transportation services. Only Kosovo and Albania imported more related freight logistic services in land transportation than they exported (Trajkov, 2012).

To conclude, logistic operators from Macedonia, Serbia and Croatia are the most competitive in supplying land freight transportation services in the CEFTA region. Croatian and Serbian railways are considered to be more competitive than Macedonian railways, although logistic operators in Macedonia are quite competitive in supplying road freight transportation services compared to the logistic operators in other CEFTA 2006 countries (Trajkov, 2012).

Considering air transportation, logistic operators in the CEFTA region that supply air freight transportation services are not very competitive which resulted in negative trade balance in these services. Moldova is the top exporter of air freight transportation services and Croatia is the top importer with the highest negative trade balance.

High positive trade balance in maritime freight transportation services of the CEFTA 2006 countries was mostly a result of good performances of the Croatian logistic operators. Other countries with international freight ports such as Albania and Montenegro imported more maritime freight transportation services than they exported (Trajkov, 2012). It indicates that foreign logistic operators in these countries supplied maritime transportation, but the port services in these countries were mostly supplied by domestic logistic operators, which is opposite to the situation in Croatia. The landlocked countries such as Serbia, Macedonia and Moldova have registered higher values of export of maritime freight transportation services than Montenegro. Logistic operators from these countries can provide maritime freight transportation services only if they have their own registered fleet or if they rent a whole vessel or a part of it.

## Conclusion

The logistic industry is one of the most important industries for the world economic development and therefore each national economy must put an effort to improve its competitiveness in the logistic sector. Trade in logistic services is one of the most relevant indicators which emphasizes the importance of the logistic industry for economic development, and also helps national authorities to create sustainable development policy in the logistic sector.

The CEFTA 2006 represents a significant step in the efforts for economic integration of the countries in the Western Balkans. Creating a single free trade area should be beneficial for the small economies and developing countries, such as the countries in the region. Despite the liberalization of trade in goods, this Agreement for the first time in the Western Balkans sets out new trade topics where services are included. The main objectives and new challenges to the members are to provide a progressive liberalization and mutual opening of the services market. That way, this integration should have a significant positive impact on the regional trade and provide better competitiveness of the countries in the region.

General conclusion that can be pointed out from the analyses of international trade in logistic services in the CEFTA 2006 countries is that logistic operators in this region are mostly specialized in providing logistic services in road transportation. Logistic operators form the countries that have access to sea, with the exception of Croatia, are mostly specialized for supplying port services and less for maritime freight transportation services. The top exporters and importers of logistic services in the CEFTA 2006 region are Croatia and Serbia which is also an indicator of the more intensive economic activity of these countries compared to the others in the region. Also it is important to emphasize that most of the international trade in logistic services in the CEFTA countries is intra-regional trade which is also a result of the developed economic relations among these countries.

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**Contact**

Aleksandar Trajkov, PhD
University "St. Kliment Ohridski" Bitola, FTU Ohrid
Kej Marsal Tito 95, 6000 Ohrid, Macedonia
aleksandar.ftu@gmail.com

Jovanka Biljan, PhD
University "St. Kliment Ohridski" Bitola, FTU Ohrid
Kej Marsal Tito 95, 6000 Ohrid, Macedonia
jovankabiljan@yahoo.com