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## GLOBAL TRADE IMBALANCES – AN ANALYSIS BEFORE AND AFTER THE GLOBAL ECONOMIC CRISIS

### ГЛОБАЛНЕ ТРГОВИНСКЕ НЕРАВНОТЕЖЕ – АНАЛИЗА ПРЕ И НАКОН СВЕТСКЕ ЕКОНОМСКЕ КРИЗЕ

**Summary:** *The scope of this paper is to define the notion of global imbalances as well as to present the amounts of trade imbalances of the world's largest traders in the period before and in the aftermath of the global economic crisis. Although the global economic crisis has somewhat corrected high deficits, or surpluses of the world's largest traders, data show that after the recovery of world trade after the global economic crisis, there is a resumption of trade imbalances in these countries. The global trade imbalances of the world's largest traders are shown in absolute terms as the difference between the import and export of goods, but also in relative terms expressed as a share of the surplus or deficit in the gross domestic product of each country. It is important to point out that thirteen countries whose trade imbalances are represented in this paper, either individually or as aggregated within a group of countries, make up over half of the world's total trade in goods.*

**Keywords:** *global trade imbalances, deficits, surpluses, world trade.*

**JEL classification:** *F10, F14*

**Резиме:** *Циљ овога рада јесте дефинисање појма глобалних трговинских неравнотежа (engl. global imbalances) и представљање износа трговинских неравнотежа највећих светских трговаца у периоду пре избијања светске економске кризе, али и у периоду након ње. Иако је светска економска криза у некој мери кориговала високе дефиците, односно суфиците, у спољној трговини највећих светских трговаца, подаци показују да након опоравка светске трговине, после светске економске кризе долази до поновног продубљавања трговинских неравнотежа ових земаља. Глобалне трговинске неравнотеже највећих светских трговаца приказане су у апсолутним вредностима као разлика између увоза и извоза роба, али и као релативне вредности исказане као учешће суфицита или дефицита у бруто домаћем производу сваке земље. Битно је истаћи да тринаест земаља чије су трговинске неравнотеже приказане у раду, било појединачно или агрегирано у оквиру неке од група земаља, чини преко половине укупне светске трговине робом.*

**Кључне ријечи:** *глобалне трговинске неравнотеже, глобални дисбаланси, дефицит, суфицит, светска трговина.*

**JEL класификација:** *F10, F14*

## 1. INTRODUCTION

The world trade in the last 20 years is characterized by huge surpluses and deficits in the foreign trade of individual countries. Global imbalances are perhaps the most interesting and most complicated macroeconomic phenomenon of contemporary times. This term implies that some countries are experiencing high deficits, and others high surpluses of their current accounts. According to the basic macroeconomic identity, this means that countries with a current account deficit have a surplus or net capital inflow in the capital account, while countries with a current account surplus have a deficit or net outflow of capital in the capital part of the balance of payments.<sup>1</sup>

Many recognized researchers deal with the study of this phenomenon, sometimes with the contradictory conclusions. Some believe that the imbalances are a benign phenomenon of today, or they are even a phenomenon in which there is a "win-win situation" (Dooley et al. 2008; Cooper 2005;

<sup>1</sup> The basic macroeconomic identity is:  $(X-M) = (S-T) + (T-G)$ , which means that the surplus in the current account is equal to the surplus of savings over investment, while, the current account deficit is equal to the surplus of investment over savings.

Mendoza et al. 2008), while numerous other scholars advocate rebalancing of the world economy which is necessary in order to maintain its stability and conditions for future growth (Krugman 2007; Bracke et al. 2008; Portes 2010; Mann 2010; Kowalski and Lesher 2011).

Some researchers even consider that the underlying cause of the latest economic crisis is precisely that disproportionate movement of capital that arises as a consequence of disproportion in the current accounts (Kenett and Rogoff 2009; Bini 2008), while some authors (Suominen 2010) do not have a clear view on that but emphasize that this problem should be the subject of analysis and resolution, although it may not have caused a crisis.

The term commonly referred to as a synonym for global imbalances is the "global saving glut", which was coined by Ben Bernake in 2005, who was formerly the first man of the US Federal Reserve (Bernake 2005). At that time, in his speech he explained that the phenomenon of global abundance of savings might explain why some countries, like the United States, have consistently expressed current account deficits, while some other countries, like China and other fast-growing Asian economies, have high surpluses. The explanation of this author is as follows: the high current account deficit of the United States is the result of a huge capital inflow from countries with a surplus of their current accounts. The money inflow made on the basis of their net export is engaged on the US financial market. By doing this for many years countries with a current account surplus finance the current account deficit of the United States through financing of its capital account.

Situation described above is correct, but the causes and consequences are replaced. While the problem of global trade imbalances is correctly perceived by researchers as a problem of high deficits and surpluses in the current account of the balance of payments, therefore in its real component, the analysis of the causes and growth of global imbalances is mainly based on explanation of growing imbalances in its capital component, which we consider not to be right.

Thus, researchers indicate as one of the main causes of global imbalances the low savings rate in the US and the low real interest rates that enabled high borrowing (investment) and consumption in the US. By contrast, as one of the most important causes of current account surplus in the fast-growing Asian countries, high savings rates in these countries are highlighted (Aizenman 2010).

When analysing global imbalances, it is truly crucial to divide causes from the consequences. We consider that high savings rates in the surplus countries are only one of the consequences of the high inflow of money generated through larger exports. Therefore, as the title of this paper suggests, the intention in this paper is to analyse the problem of imbalance not through the prism of the capital part of the balance of payments, but through its trading part.

The scope of this paper is to present deficit and surplus in the trading part of balance of payments of countries with high deficits and surpluses. Given that a large portion of the current account deficit can be "corrected" purely by financial transactions such as interest incomes, profits and dividends, remittances from abroad and current transfers, we consider that the analysis of the global imbalances would be best done through the intersection of balance of payments in their trading parts, thus analysing only imports and exports of individual countries. In this paper we observe the trade balance of the countries measured as the difference between the total export and total import of goods, given that the goods continue to be the dominant subject of world trade with almost 80% of the total world trade.<sup>2</sup>

## 2. GLOBAL TRADE IMBALANCES – ANALYSIS IN THE PRE-CRISIS PERIOD

Table 1 shows the trade balance of several major or largest world traders, measured by the share of their imports and exports in the world's total trade in the years preceding the global economic crisis, according to the World Trade Organization (*WTO Statistics: International Trade Statistics*).

It should also be noted that the countries whose trade balances are shown in Table 1, together constitute more than a half of the world's total trade. In addition to the countries shown in the Table 1, the major world traders include Canada, Mexico, Hong Kong (in the domain of re-exports). All countries that are among the ten largest world traders, and those who follow them, have huge trade imbalances – surpluses or deficits in absolute terms, which is one of the "burning" phenomena of today's world economy.

<sup>2</sup> Services make up less than 20%, while 1% of world trade is spent on trade in intellectual property as a subject of trade.

Table 1. Trade balance in goods of large world traders (in millions of dollars, current prices)

	2001.	2002.	2003.	2004.	2005.	2006.	2007.
<b>Surplus economies</b>							
<b>China</b>	22.545	30.426	25.468	32.097	102.000	177.517	264.340
<b>Germany</b>	85.526	125.548	146.948	194.145	193.842	201.423	266.231
<b>Russia</b>	48.120	46.335	59.859	85.825	118.364	139.270	130.917
<b>Japan</b>	54.407	79.532	88.887	111.133	79.074	67.661	92.084
<b>S. Korea</b>	9.341	10.345	14.990	29.382	23.181	16.082	14.643
<b>Netherlands</b>	22.217	24.794	31.308	37.748	42.550	46.797	58.139
<b>Singapore</b>	5.751	8.736	23.684	25.038	29.602	33.097	36.153
<b>Belgium</b>	11.685	17.816	20.672	21.246	15.700	15.110	19.394
<b>Deficit economies</b>							
<b>US</b>	-	-	-	-	-	-	-
	450.080	507.127	578.279	710.805	831.624	892.110	872.204
<b>UK</b>	-	-	-	-	-	-	-
	-71.070	-83.880	-93.774	123.139	128.413	161.764	196.432
<b>Spain</b>	-	-	-	-	-	-	-
	-37.990	-39.418	-52.456	-75.708	-96.141	114.979	136.004
<b>France</b>	-	-	-	-	-	-	-
	-5.229	2.457	-6.801	-18.839	-40.696	-46.051	-71.249
<b>Italy</b>	-	-	-	-	-	-	-
	8.269	7.411	1.814	-1.519	-11.656	-25.679	-11.781

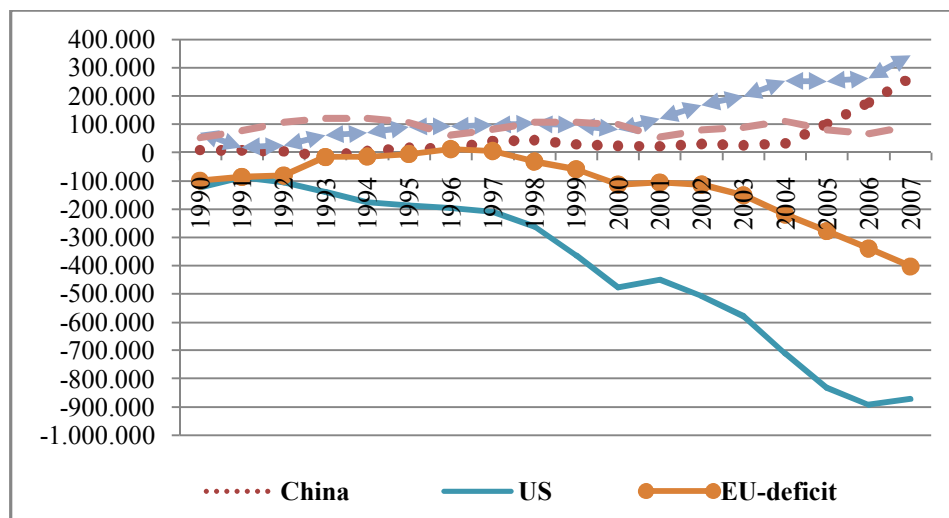
Source: WTO, Statistics Database, Time Series on International Trade (calculation of author)

From the Table 1 we can see that each of these countries has either a huge absolute surplus or huge absolute deficit, and we will see that these amounts are also significant in relative terms as percentages of corresponding gross domestic products. The absolute largest trade deficit in goods is in the United States, while the absolute largest surplus is recorded by China and Germany.

As Table 1 indicates, in the analysis of the global trade imbalances it is not enough to understand only the huge US deficit and the huge Chinese surplus. Besides China, there are significant other large net exporters such as Japan (whose surplus is slightly decreasing), "Asian tigers" like Singapore and South Korea, Russia, and large European net exporters such as Germany, Belgium and the Netherlands. In fact, the surplus of Germany in the years observed before the crisis is absolutely higher than the surplus of China. Also, apart from the United States, large net importers of goods are also major European economies such as United Kingdom, Spain, France and Italy.

Chart 1 shows the movement of trade balance of goods between 1990 and 2007. In order to have clearer picture, several countries with absolutely highest surpluses and deficits were selected, while we also aggregated the EU countries into two groups – EU-surplus and EU-deficit countries.

Chart 1. Trade balance in goods of world largest traders (1990–2007, millions of dollars)



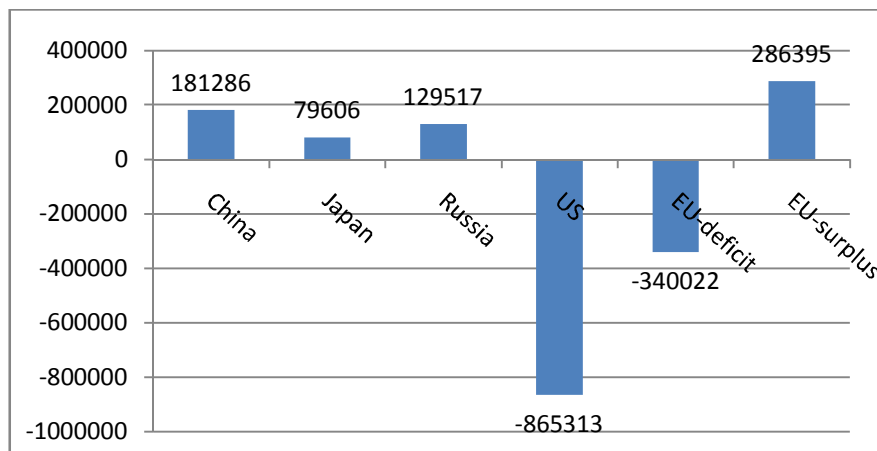
Source: WTO, Statistics Database, Time Series on International Trade (calculation of author)

It is evident that the US level of trade deficit in goods has deepened considerably since the 1990s, as well as the deficit of EU-deficit countries, while net exporters such as China, a group of EU-surplus

countries and Japan have had steadily growing surpluses. In several pre-crisis years, when world trade reached its highest recorded value, global trade imbalances were most pronounced.

Chart 2 shows absolute trade balance in goods as average of three pre-crisis years.

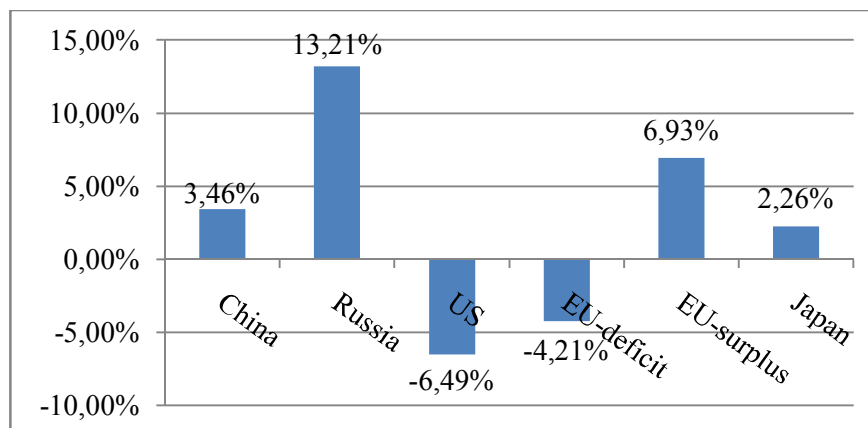
Chart 2. Three-year average of trade balance in goods (2005–2007, millions of dollars, current prices)



Source: WTO, Statistics Database, Time Series on International Trade (calculation of author)

Until now, as an indicator, we used the absolute amounts of the trade balance in goods – surpluses or deficits. In order to clarify these phenomena, we will show their relative measures when they are compared with the gross domestic product of the observed countries, as shown in Chart 3.<sup>3</sup>

Chart 3. Three-year average surplus or deficit in three-year average of GDP (2005–2007, in percentages)



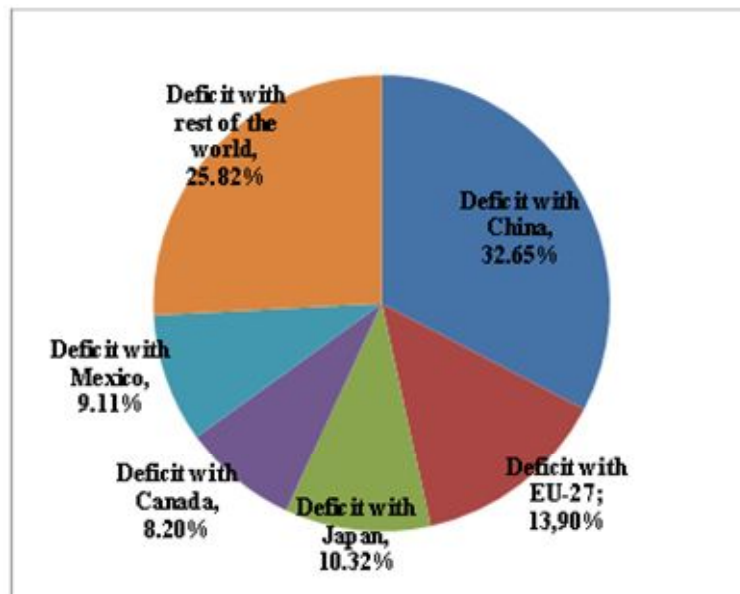
Source: WTO - Statistics Database, Times Series on International Trade и IMF - Data and Statistics, World Economic Outlook September 2011, calculation of author

Obviously, in the pre-crisis years, the United States had also a huge deficit in trade of goods in relative terms. Russia had the only relatively larger imbalance in trade in three pre-crisis years, which is largely the result of the growth of oil and energy prices in this period, which are the most important Russian export products. We can also conclude that the imbalances of the EU's deficit countries are relatively high, while the surplus of European exporters is also high in relation to the GDP of these countries.

Although the problem of global imbalances is not only a problem of the US deficit and the Chinese surplus, given the enormous absolute and relative level of the US deficit, it is interesting to look at its geographical structure by countries in 2007, as shown in Chart 4.

<sup>3</sup> As relative indicator of the imbalances for certain groups of countries, we use a share of their total deficit or surplus in the sum of the gross domestic product of these countries.

Chart 4. Share of 5 the most important trade partners of US in the balance of trade in goods of US in 2007

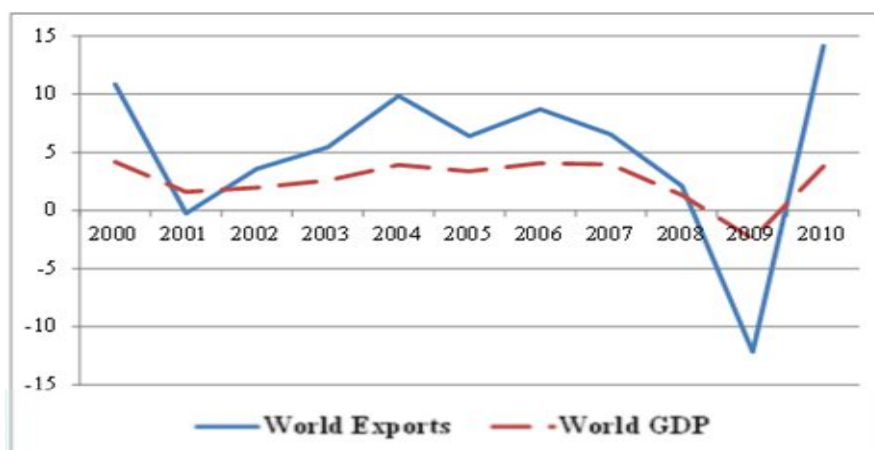


Source: World Trade Organization, International trade statistics 2008, calculation of author

### 3. WORLD TRADE IN THE PERIOD OF THE GLOBAL ECONOMIC CRISIS

The global economic crisis, which started in the financial sector in 2007, and intensified in September 2008, influenced the pre-crisis trends of international trade. In 2009, world trade registered an annual decline of 12.5% (according to the OECD 2010). The decline in world trade in the conditions of the latest crisis is not as deep as during the Great Depression, but it took much less time to emerge. At the time of the Great Depression, it took 24 months for negative effects to be reflected in world trade to the extent that they were reflected during the last crisis of 2008/2009 from November 2008 to July 2009 (Tescic and Gligoric 2010, 346).

Chart 5. World Exports and world GDP, annual rates in volumes (2000-2010)



Source: WTO International trade statistics 2011, based on Tabel A1.

[http://www.wto.org/english/res\\_e/statis\\_s/its2011\\_e/its11\\_appendix\\_e.htm](http://www.wto.org/english/res_e/statis_s/its2011_e/its11_appendix_e.htm), calculation of author

Chart 5 shows the growth rates of total world exports and the global GDP in the period 2000-2010. It is evident that the fall in global exports was sharper and faster than the fall in the global production.

Quarterly observed, this drop was even more severe. Between September 2008 and January 2009, the volume of international trade declined by 17.5% (Gregory et al. 2010). According to the Dutch Bureau for Economic Policy Analysis, in November 2008, the beginning of the fall was 0.5%, while the last two months of 2008 and January 2009 were months in which world trade declined by then unreleased rates.

Table 2 shows the fall rates of world trade on a monthly basis, as well as falling rates for the world's leading economies.

Table 2. Monthly growth rates of world exports from November 2008–January 2009

	Oct. 2008	Nov. 2008.	Dec. 2008.	Jan. 2009.	Fall in the previous three months ending January 2009 (on annual basis)
Worldexports	-0,5	-6,6	-5,3	-7,5	<b>-41,6</b>
EU (15)	-2,3	-6,1	-2	-6,9	<b>-36,8</b>
US	-0,7	-4,3	-6,5	-7,8	<b>-44,3</b>
Japan	-2,8	-14	-9,7	-15,8	<b>-68,7</b>
Rest of the world	1,5	-7	-7	-6,8	<b>-41,0</b>

Source: Netherlands Bureau for Economic Policy Analysis – World Trade Monitor, various issues <http://www.cpb.nl/en/world-trade-monitor>, calculation of author

Although it is usual that in the time of declining economic activity there is an even faster decline in international trade, this decline was so sharp, sudden and synchronized across countries that it was characterized in the literature as "Great Trade Collapse" (Baldwin 2009).

#### 4. GLOBAL IMBALANCES AFTER THE GLOBAL ECONOMIC CRISIS

We saw that the decline in international trade was sharp, fast and synchronized during the crisis. Another feature of this decline was that trade in net-importers such as the US, imports fell faster than exports, while in countries that are net-exporters, exports have fallen faster than imports (e.g. in Japan). Such scenario in world trade affected the narrowing of global trade imbalances.

Table 1, which shows the trade imbalances of the world's largest traders ending in 2007 as a pre-crisis year, will be expanded for years of crisis in which there is a reduction of imbalances for both – countries with a negative balance of trade in goods, as well as for countries with a positive balance of trade in goods. Table 3 shows trade imbalances in goods for world's largest trading economies.

It is evident from the Table 3 that in the crisis years, the imbalances of countries with previously deepest imbalances have been reduced. A very interesting figure is indicated in Table 3, which is that in 2011, Japan, as a traditional net exporting country, recorded a deficit in trade in goods that has continued to date (marked in the table). It is also interesting that Italy has again turned from the net-importer to the net-exporter (marked in the table), mainly due to the decline in demand and deflationary effects in the Italian economy in recent years, and less due to the higher competitiveness of Italian exports.

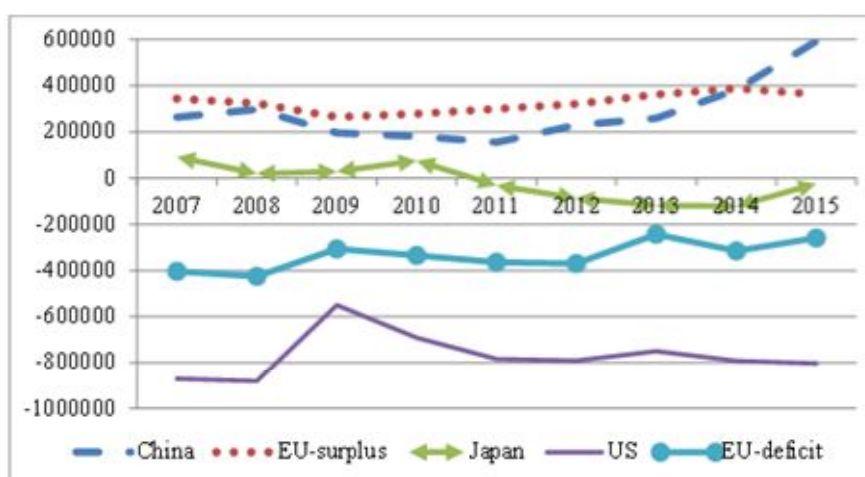
Table 3. Trade balance in goods of the world's largest traders (in millions of dollars, current prices)

	2007.	2008.	2009.	2010.	2011.	2012.	2013.	2014.	2015.
<b>Surplus economies</b>									
<b>China</b>	264.340	298.126	195.689	181.507	154.897	230.309	259.015	383.060	592.998
<b>Germany</b>	266.231	261.104	193.693	204.110	219.116	246.261	263.834	287.567	279.444
<b>Russia</b>	13.0917	179.745	111.585	151.996	198.180	193.810	181.941	189.737	146.262
<b>Japan</b>	92.084	18.878	28.738	75.715	-32.197	-87.276	-118.069	-121.967	-23.555
<b>S. Korea</b>	14.643	-13.267	40.449	41.172	30.801	28.285	44.048	47.150	90.256
<b>Netherlands</b>	58.139	56.981	54.738	57.842	72.735	68.447	81.859	83.231	61.411
<b>Singapore</b>	36.153	18.396	24.047	41.076	43.733	28.670	37.234	43.540	53.761
<b>Belgium</b>	19.394	5.533	16.761	16.515	8.729	6.811	17.083	17.687	22.891
<b>Deficit economies</b>									
<b>US</b>	-872.204	-882.045	-549.253	-690.689	-783.516	-790.821	-749.467	-792.015	-803.031
<b>UK</b>	-196.432	-185.615	-164.185	-175.136	-170.326	-222.429	-119.419	-185.261	-165.360
<b>Spain</b>	-136.004	-139.310	-65.879	-72.598	-70.055	-42.088	-22.765	-34.389	-27.456
<b>France</b>	-71.249	-100.555	-76.092	-87.303	-123.556	-105.707	-100.504	-96.133	-66.764
<b>Italy</b>	-11.781	-19.171	-8.195	-39.748	-35.529	12.706	38.821	55.706	50.136

Source: WTO, Statistics Database, Time Series on International Trade (calculation of author)

From Chart 6, which is based on Table 3, it is even more apparent that imbalances decreased in years in which international trade declined, while it is also evident that with the growth of international trade after 2010, global imbalances widened again. Figure 6 shows aggregated data for EU-surplus and EU-deficit countries, where Italy is excluded from the EU-deficit countries, as from 2011 Italy became a net-exporter.

Chart 6. Trade balance in goods of world largest traders (2007-2015, millions of dollars)



Source: WTO, Statistics Database, Time Series on International Trade (calculation of author)

Chart 6 shows that the deficit of the US and the EU's deficit countries that represent the countries with the most pronounced deficit in trade in goods, has decreased in the crisis, but it is also evident that after the exit out of crisis (2010 and 2011) when there was recorded a recovery in international trade flows, these deficits were gradually growing again. They tend to reach the 2007 pre-crisis level. Also, the surplus of China and the EU-surplus countries has diminished in the years of the sharp decline in world trade (2009). But, surplus of China again reached the pre-crisis level. After 2014, the surplus of China is even bigger, as well as the surplus of other large exporters (Germany, Netherlands and Belgium).



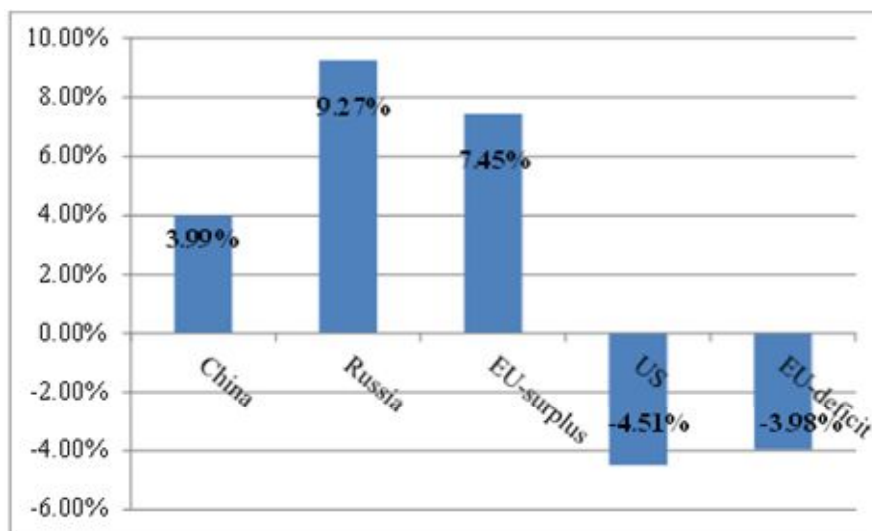
This phenomenon or "illusion" that the crisis will solve the problem of global trade imbalances has been noted in the work of numerous authors. Thus, Baldwin and Taglioni (2009) state that the narrowed imbalances of the US, China, Germany and other countries will rapidly return with the renewal of international trade flows. Since the authors wrote the paper in 2009, it is obvious from our charts and the presented data that these authors had good predictions.

Given that the cause of the decline in international trade lies in falling demand, international trade has recovered very quickly with demand recovery, which was not unexpected. Thus, the problem of trade imbalances quickly returned to the agenda of analysts, intergovernmental and international organizations.

Similar conclusions about the future permanence of global trade imbalances are also provided in Chinn et al. (2011) who analysed the causes of imbalances in internal economy, such as fiscal deficits and low savings rates in the United States and the United Kingdom, and, on the other hand, insufficient demand in China as the cause of its surplus.

In order to clarify these phenomena, we will also show their relative measures, i.e. when trade imbalances are put in relation to the domestic product of the observed countries, as shown in Chart 7.

Chart 7. Three-year average surplus or deficit in three-year average of GDP (2013-2015, in percentages)



Source: WTO - Statistics Database, Time Series on International Trade and IMF – Data and Statistics, Worlds Economic Outlook April 2016, calculation of author

We note that deficits and surpluses are also high in relative terms. Compared to the three-year average in the pre-crisis period, the US deficit and surplus of China remain high - China's relative surplus in the period 2013-2015 was even bigger than in three pre-crisis years, while the US deficit is relatively rather lower compared to the situation before the outbreak of the global economic crisis. The countries of the European Union, both those with deficits, and those with surpluses, still have high imbalances. Russian relative surplus is somewhat lower, but still relatively high due to the structure of Russian exports, which is largely made up of energy resources and natural resources.

## 5. CONCLUSIONS

The problem of global imbalances and the tendency for their correction in the literature is very often analysed by observing the causes that lead to huge imbalances in the capital part of balance of payment. The issue of many researchers is to clarify how some of the countries that were previously net-recipients of capital have now become net-providers (such as the fast-growing emerging economies of Asia), while earlier net-providers have become net-recipients (such as the US). This is important to conclude, since current account deficits are reflected as surpluses in the capital part of the balance of payments, but not the most significant.



The important things to analyse are sources of surplus or deficit in the current part of the balance of payments, in its most important part, which is the import and export of goods. Simply put, if a country is a net exporter of goods and services, it means that it produces more than it spends, while a net importer is a country that consumes more than it produces. The conclusion that the current account deficit of the US is simply funded by capital inflows from abroad is not logical. The US economy could use inflows from abroad in many other ways, not only spending on Chinese and other imported goods. Given that Africa is the only region with which the United States has a surplus in trade in goods, it is reasonable to conclude that one of the problems in the US trade with the rest of the world is the competitiveness of US products. Ultimately: if the current account deficit is financed by savings from abroad, why American consumers do not use American goods which would encourage their own economy, instead of buying Chinese, Japanese or German goods? Countries like the United States, the United Kingdom, France and Italy, which once were countries with a surplus in foreign trade, today have huge deficits, which is an obvious sign that their products are also slowly losing competitiveness both on the foreign and domestic market. On the other hand, the high surplus, or export capacity of countries like China, is based on the consumption and purchasing power of consumers in other countries, and it is justifiable to raise the question: how sustainable are these deficits and surpluses?

Global trade imbalances also impact further developments of the international trade system and the liberalization process of international trade regime. Experience with previous crises shows that the pressure for protectionism is directly proportional to the speed, depth and duration of the crisis (Tescic 2012, 80).

Global trade imbalances are a problem that is addressed in various places: both in scientific and professional economic circles, as well as in decision-making centers such as the US Congress, the Parliament of Great Britain, and the Communist Party of China. The risk of permanent deficits and surpluses is the possibility of tackling this problem through the introduction of protectionist measures in countries that have unsustainable deficits, above all, the US and EU countries with high deficits.

As stated in Bracke et al. (2008, 27): "In a scenario in which imbalances are not corrected quickly and automatically, there is a growing risk of the growth of political pressure for protectionism in order to correct these deficits. Such solutions as measures that discriminate imports and encourage exports could be useful and simple in order to solve this problem, but protectionism certainly has negative effects on world trade and production growth in the world." We are witnessing that the problem of the US deficit in the Congress is addressed mainly through the question of the underestimation of the Chinese Yuan and the need for its revaluation, which is certainly not *a panacea* for the US deficit. As stated in Gligoric and Tescic (2011, 250), the main culprit for this deficit is not only underestimated Yuan.

Proof that protection measures can only exacerbate world production and growth is found in Faruquee et al. (2006) where the authors showed in a detailed empirical way that the attempt to solve the deficit through "beggar their neighbour policies" is understandable, but short-sighted and short-term. According to the conclusions of these authors, a country can improve its foreign trade relations through the introduction of unilateral measures, but it risks the retaliation of trading partners that ultimately eliminate the initial improvement, and all partners, and thus the overall global economy, would be at risk. According to their empirical results, the introduction of 10% tariff on imports from Asian economies, from which the United States imports the most, improves the ratio of the US deficit and GDP by just 0.1%, and this effect disappears in two years if there is no restructuring of the savings and consumption in the internal economy. The authors have also come to the conclusion that in the hypothetical situation of the introduction of simultaneous tariffs in the most important trading partners in the US, there would be a decline in economic growth in all blocs, in the United States by 1.2%, Japan and the Eurozone by 2.8%, the emerging Asia by 3.2% and other countries by 2.4%.

What is also important from the point of view of small and poor countries is that the protectionism of the big countries impacts the Doha Development Round, and delays the positive effects of liberalization of international trade. The permanent deficits of some big economies that are trying to be solved by foreign trade policy certainly postpone and slow down the liberalization of world trade. Thus, the phenomenon of global trade deficits (surpluses) makes it difficult for the underdeveloped countries to access the world market, and has to be taken into account when discussing on foreign trade policies of countries.

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