EVALUATING THE EFFECTS OF ECONOMIC RECESSION ON IRANIAN SHIPPING MARKET

Procjena učinaka ekonomske recesije na brodarsko tržište u Iranu

Amir Saeed Nooramin

Faculty of Maritime Economics & Management
Khoramshahr University of Marine Science and Technology
Khoramshahr, Iran
E-mail: saeid.nooramin@yahoo.com

Sajjad Abdi

Faculty of Economics
University of Tehran
Tehran, Iran
E-mail: sajad.abdi3@gmail.com.

UDK 338.47:656.61

Summary

The financial crisis which started in 2007 is considered to be responsible for the creation of the greatest financial dislocations since the Great Depression in the 1930s causing a drop in the international trade.

In this respect, shipping market as the main service provider to international trade experienced a downfall wherein many shipping companies lay-upped or scrapped their vessels. The main purpose of this research is to evaluate the changes in Iranian liner shipping connectivity index caused by economic recession. For this purpose, this paper studies the Iranian economy from 2007 to 2009, i.e. the recession period, and evaluates the effects of world financial crisis on the Iranian shipping market.

Keywords: Shipping market, economic recession, Liner Shipping Connectivity Index, Iranian shipping market

Sažetak

Smatra se da je financijska kriza koja je započela 2007. odgovorna za nastanak najvećih financijskih poremećaja od velike depresije 1903-ih, izazvavši pad u međunarodnoj trgovini.

U tom smislu, brodarsko tržište kao glavni pružatelj usluga u međunarodnoj trgovini pretrpjelo je pad zbog kojeg su mnoge brodarske kompanije bile prisiljene staviti svoje brodove u raspremu ili ih prodati u staro željezo. Cilj ovog istraživanja je procijeniti promjene u indeksu povezanosti linijske plovidbe u Iranu koje su nastale uslijed ekonomske recesije. U tu svrhu ovaj rad analizira iransko gospodarstvo od 2007. do 2009. godine, t.j. period recesije, te procjenjuje učinke svjetske financijske krize na brodarsko tržište u Iranu.

Ključne riječi: brodarsko tržište, ekonomska recesija, indeks povezanosti linijske plovidbe, brodarsko tržište u Iranu.

ISSN 0469-6255 (215-222)

INTRODUCTION / *Uvod*

Maritime transportation is the backbone of international trade, but the share of its weight borne by sea is hard to come by (Barnhart and Laporte, 2007).

Beginning in 2007, the global economic recession brought significant changes in the world economy. It was not surprising that a global crisis would lead to a significant decline in global activity; the extent and duration of this decline representing a major area of research (Claessens et al., 2008). As studied by Mohi-Eldin and Mohamed (2010), the existence of 2008 economical crisis and its deep impact on all economic sectors worldwide, caused a severe impact on container sector and particularly on container shipping line due to the nature of the maritime market in the sense of reaching the equilibrium point between supply and demand. This crisis is unique for its depth and global effect that no region or country has remained unaffected.

ITF report (2009) showed that vessel owners have idled vessels –in May 2009 almost 10% of the world container fleet capacity (1.1 million TEU's). Idling vessels has been an immediate response to the drop in demand but many owners have also sought to scrap their older, less economic vessels. In addition, drop in scrap vessel values has an influence on fleet renewal as owners may wish to now hold on to vessels while waiting for higher scrap values in order to regain some of the residual capital value of their ships and many ship owners have cancelled new build orders. Barring major structural changes in world trade patterns, the recession will delay maritime activity growth for a few years, without fundamentally changing projected trends (OECD/ITF, 2009).

The economic sectors that were affected the most are those whose operation relies on the financial system and mainly on bank credit, namely housing and consumer lending, as well as the shipping industry, as the demand for transportation is influenced by the demand for global trade (Pagoulatos and Triantopoulos, 2009), and since the demand for global trade has fallen, the impact on the ocean container transportation is also noticeable (Slack, 2010). Apart from the idle ships, the over capacity is enhanced by the arrival of new deliveries, whose building orders were placed in previous years (Slack, 2010). It is important to note that the carriers' new orders are significantly reduced compared to the previous years (Containerization International, 2010). The financial recession of the post 2008 period has a significant impact on international trade, transport and logistics (Ng and Liu, 2010).

Characteristic was the decision of Maersk Line to lay off 3000 employees operating in the container division, January 2008, to reduce by 700 the working places in the Chinese market by 2009, and shut down the global services centre in Guangdong, November 2008 (Luo et al., 2009).

This paper aims at evaluating the effects of recession on Iranian shipping market. To achieve this purpose, liners shipping connectivity index coupled with the changes in different shipping markets, i.e. tanker, container, and bulk, of Iran are studied. However, needless to say that the future of the maritime industry is dependent on the time that is needed, in order to recover from the effects of the recession (Samaras and Papadopoulou, 2010).

ECONOMIC RECESSION / *Ekonomska recesija*

The financial crisis has occurred at a time when many developing economies have been enjoying years of good growth, and this together with improved macroeconomic management has resulted in more robust economies in the developing world, and with this more optimistic prognosis, it may be possible for many individual developing countries to manage the impact of the crisis through appropriate policy responses (Naudé, 2009).

Given the openness of U.S. financial markets and the heavy participation of foreign banks and financial firms in those markets, the U.S. financial crisis quickly spread throughout the world (Krugman, 2008). The financial crisis that started in 2007 is considered to be responsible for the creation of the greatest financial dislocations since the Great Depression of the 1930s (Melvin and Taylor, 2009).

While the crisis quickly resulted in deep recessions in a number of advanced economies, the emerging market and developing economies were also seriously affected, but the impact varied across regions and countries (Claessens *et. al.*, 2008), resulting in a deepening economic crisis affecting worldwide productivity and employment (Floer and Coutts, 2009).

World Trade Organisation and World Bank, predicting the biggest global economic contraction on record since World War II, due to the reduction of global exports by 9% in 2009 (WTO, 2009), as well as a 2.9% decrease in global economic output, representing the first decline since 1982, a 10% decrease in global trade volume for 2009, and a decline of 38-79% in gross domestic product growth in 2009, relative to 2008, in developing nations (World Bank, 2009).

ISSN 0469-6255 (215-222)

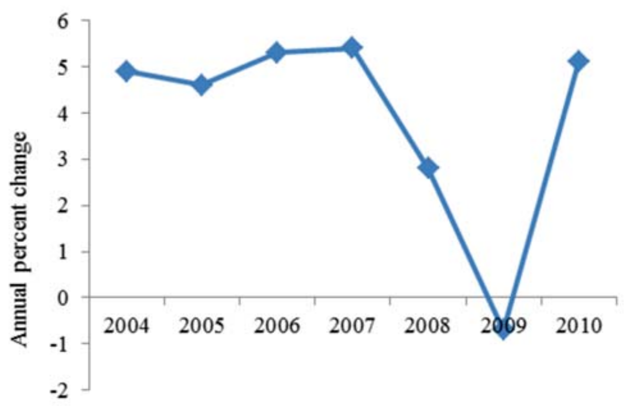


Figure 1 Annual percent change world output (IMF, 2004-2010)

Slika 1. Promjena u prosječnoj svjetskoj proizvodnji (IMF, 2004-2010)

Excessive accumulation of debt (Reinhart *et. al.,* 2009), the rapid increase of asset prices in a number of countries before the crisis, the credit booms ahead of the crisis experienced by a number of key economies, the dramatic expansion in a variety of marginal loans, the inability of regulation and supervision of financial institutions to keep up with developments (Claessens *et al.*, 2008). Besides the similarities, commentators, especially in the media, argue that the latest crisis is different. Krugman (2009) identified that its root causes lie in the excessive global savings, flowing through a poorly regulated shadow banking system in the United States to its housing market. Additionally, Claessens *et. al.* (2008) suggested the four main points that differentiate the present crisis with the previous ones. Firstly, there is no clarity among the products that the financial institutions used to offer. Secondly, the unification of the financial markets in a domestic and global range is to be mentioned. Thirdly, the acceleration of the banking leverage is sharp. Finally, there is a difference in the role of the household. The combination of the above four elements compose the right climate for the 2007 financial crisis. They further stated that the global recession affected all advanced economies; the consequence of it was the drop of the house prices and a credit shock, followed by the immediate decrease in the consumption and the investment ability.

Around the world, most countries have responded to the economic crisis by cutting interest rates and injecting more liquidity into financial systems. Many governments have concluded that the best way to combat recession is to introduce fiscal stimulus packages that can boost domestic demand and help counteract losses in confidence (UN, 2009).

Figure 2 represents the global oil demand including LPG, Naphtha, Motor Gasoline, Jet fuel, Kerosene, Gasoil, and Residual Fuel Oil.

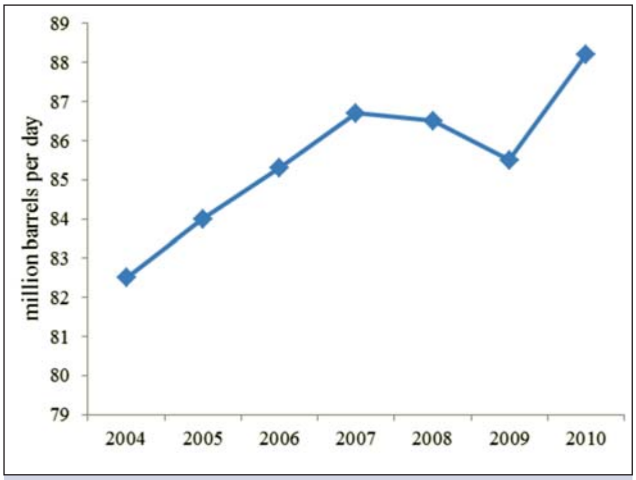


Figure 2 World oil demand (International Energy Agency, 2007-2011)

Slika 2. Svjetska naftna potražnja (International Energy Agency, 2007-2011)

As illustrated from figures 1 and 2, there is a decrease in both of the global oil production and demand during economical recession.

RECESSION IN IRAN / *Recesija u Iranu*

Like other open economies, Iranian economy was also affected by the difficult condition of financial markets. Although many Iranian analysts optimistically assessed the first round impact of the global financial crisis on the Iranian economy negligible, soon the depth and width of the world crisis hit all aspects of the financial market in Iran in a meaningful way. However, the weak connections of the capital and financial markets and institutions of Iran with their counterparts abroad proceeded to less impact on operational indices of securities market in Iran (Central Bank of Islamic Republic of Iran, 2008/2009).

The first and most compelling transmission of the world economic crisis on the economy of Iran was related to the sharp fluctuation and then decline of oil prices in international market. With sharp oil price falls during the second half of 2008 and the consequent decline in Iran's oil production and export, the country experienced immense amounts of forgone foreign exchange earnings.

ISSN 0469-6255 (215-222)

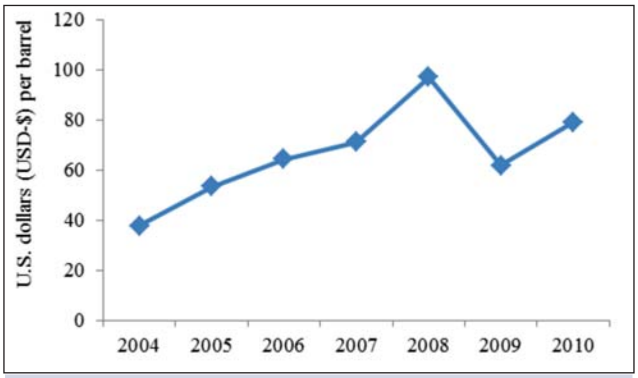


Figure 3 Crude oil average spot price (World Bank commodity price date, 2011)

Slika 3. Prosječna spot cijena sirove nafte (World Bank commodity price date, 2011)

As oil refinery and petrochemical products constitute a large portion of non-oil exports of Iran, the non-oil export of the country also suffered similarly at the second half of the year, leading to the assessment that non-oil exports cannot compensate for declines in oil exports at difficult conditions of international oil market. Of course the weaknesses in commodities' international prices and markets lowered the import prices for trade which benefited the Iranian economy over the second half of the year (CBI, 2008/2009).

However, as of August 2008, oil prices plunged rapidly as demand from the Organization for Economic Co-operation and Development (OECD) countries came to a sudden halt and recession loomed as the financial crisis severely impacted the global economy (IDS, 2008).

Oil represents 80% or more of the exports of Iran in 2008 (The World Bank Middle East Department, 2009), thus it caused a decrease in Iranian GDP, as shown in figure 4.

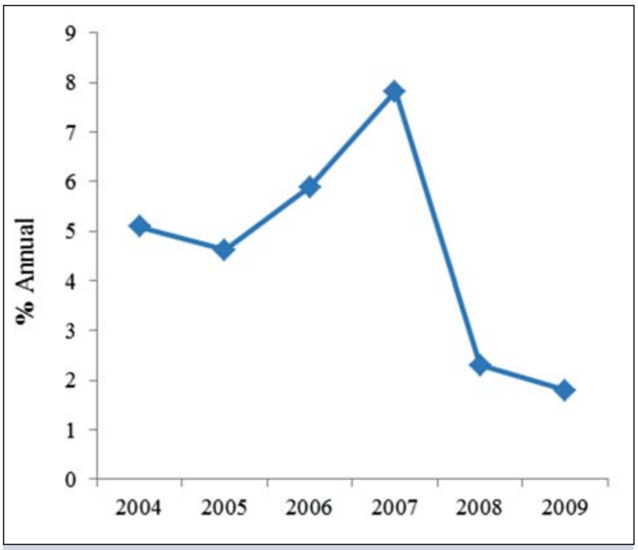


Figure 4 Iranian GDP growth (World Bank, 2011)

Slika 4. Rast BNP u Iranu (World Bank, 2011)

Although Lebanon, Iran and Jordan's stock market indices declined alongside other MENA[1] countries, they declined less than in most other emerging market economies. Apart from Lebanon, which has some cross-border banking transactions and sovereign and corporate presence on the global bond market, the ME-5 [2] region is relatively isolated from the global financial system (The World Bank Middle East Department, 2009).

While the impact of the crisis of ME-5 financial systems has been limited so far, going forward, one cannot exclude a significant impact on the real economy (The World Bank Middle East Department, 2009).

Beyond these macroeconomic considerations of the initial conditions, ME-5 entered the crisis with a challenging position from asocial and structural perspective due to a long standing social contract and difficult to retract commitments. First, ME-5 countries share the characteristics of high unemployment (above 10 percent). Their unemployment rates are generally much higher than developing countries averages. Another characteristic of ME-5 is their high level of youth unemployment. Second, in some ME-5 countries, subsidies are high and seen as part of the social contract (Iran and Syria), and other inefficiencies in state-owned enterprises creates a burden on public finances similar to subsidies (Lebanon and Iraq). Third, in the Iran, Iraq, and Syria political economy can make it difficult to implement reforms quickly to respond to a fast changing global environment. While the impact of the global financial crisis on ME-5 financial systems has been limited, the impact on the real economy can be Significant (The World Bank Middle East Department, 2009).

The Iranian economy's most significant challenge is the fall in oil export revenues due to the reduction in global demand and subsequent fall in global oil prices. So far, through the end of Iranian year, i.e. March 20, 2009, the magnitude of this impact was relatively modest, due to exceptionally high oil prices and revenues in the first half of the Iranian year. Compared to the 2008-2009 budget revenues and expenditures of the Central Government are expected to decrease in 2009-2010 by more than 10 percentage points of GDP, from 28.7 percent to 18.4 percent. Current revenues (taxes) are budgeted to fall by 1.8 percent of GDP, showing signs of an expected slow-down in economic activity; while disposal of capital assets (oil revenues) is

[1] 1.The MENA (Middle East & North Africa) Region includes: Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West Bank, Gaza, and Yemen

2. Middle East 5 countries include Iran, Iraq, Jordan, Lebanon, and Syria

ISSN 0469-6255 (215-222)

expected to fall by 5.6 percent of GDP (The World Bank Middle East Department, 2009).

As shown in figure 5, the most effective impact of the world economic and financial crisis on the Iranian economy took place in the oil sector as a result of the high dependence of country's foreign exchange earnings on the oil revenue (CBI, 2008/2009).

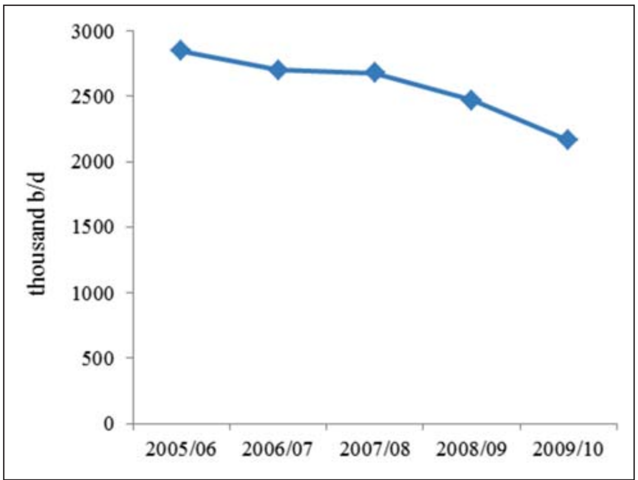


Figure 5 Iranian oil export (CBI annual review, 2005 - 2010)
Slika 5. Izvoz nafte u Iranu (CBI annual review, 2005 - 2010)

The 150th (Extraordinary) meeting of the OPEC conference convened on October 24th, 2008 discussed the current global financial crisis, the world economic situation, and their impacts on the oil market. The state of worrying about a dramatic reduction in demand and oil prices made the OPEC decrease the current OPEC-11 production ceiling (excluding Iraq and Indonesia) by 1.5 mb/d, effective November 1st, 2008 (CBI, 2008/09).

IRANIAN MAIN SHIPPING MARKETS / *Glavna brodarska tržišta u Iranu*

The Liner Shipping Connectivity Index captures how well countries are connected to global shipping networks. It is computed by the United Nations Conference on Trade and Development (UNCTAD) based on five components of the maritime transport sector including number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in a country's ports. For each component a country's value is divided by the maximum value of each component in 2004, the five components are averaged for each country, and the average is divided by the maximum average for 2004 and multiplied by 100. The index generates a value of 100 for the country with the highest average index in 2004 (World Bank, 2010).

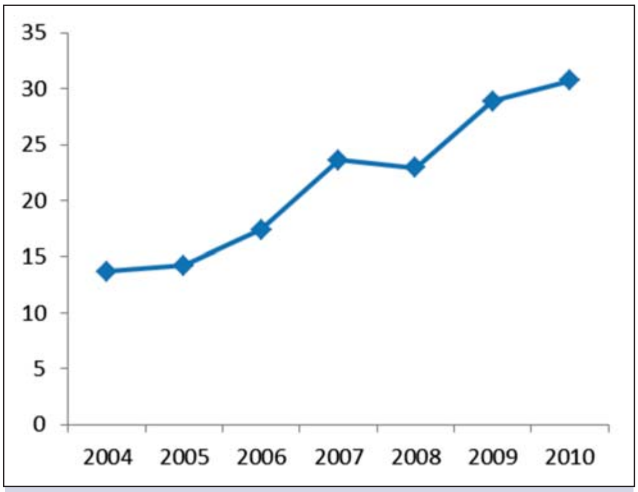


Figure 6 Iranian Liner Shipping Connectivity Index (World Bank, 2011)
Slika 6. Indeks povezanosti linijske plovidbe u Iranu (World Bank, 2011)

As shown in figure 6, although there were a decrease on number and capacity of Iranian vessels, but Liner Shipping Connectivity Index has an increase, which represents Iranian vessels continue their global trade, during the economical recession.

Port container traffic measures the flow of containers from land to sea transport modes, and vice versa, in twenty-foot equivalent units (TEUs), a standard-size container. Data refer to coastal shipping as well as international journeys. Transshipment traffic is counted as two lifts at the intermediate port (once to off-load and again as an outbound lift) and includes empty units.

Figure 3 shows the Iranian container port traffic.

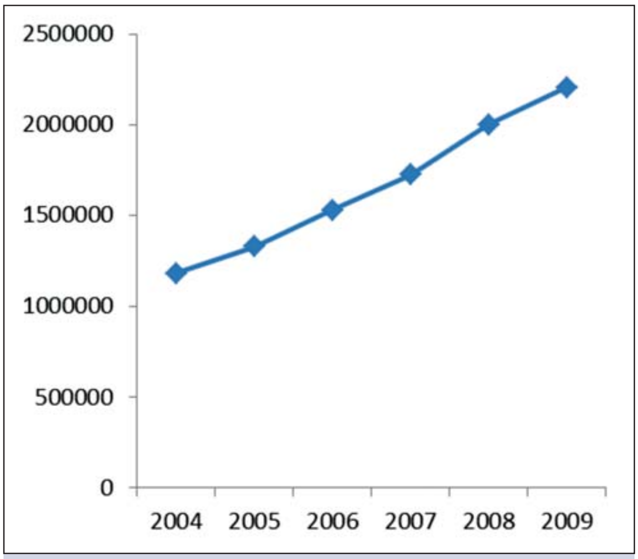
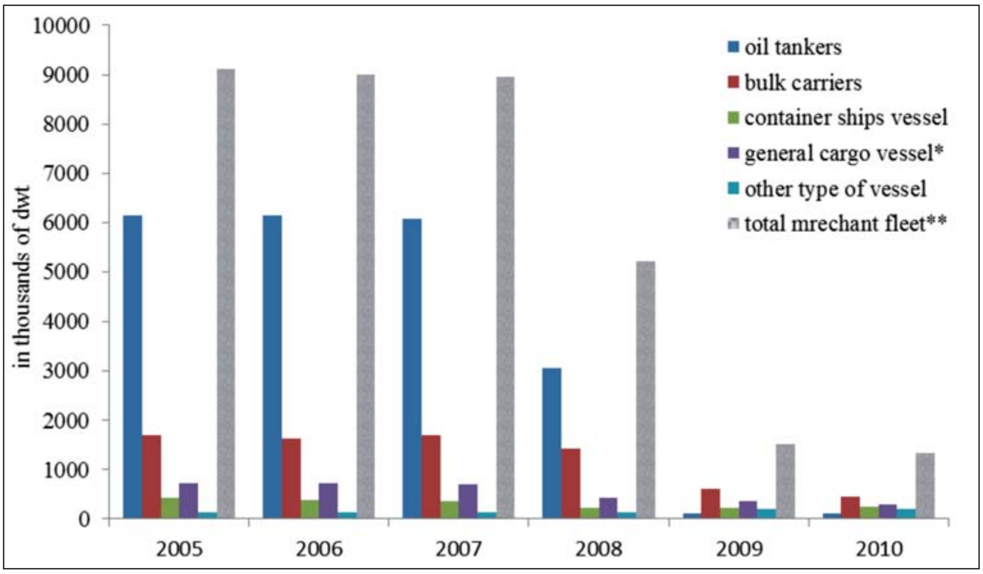


Figure 7 Container port traffic of Iran (UNCTAD, 2010)
Slika 7. Kontejnerski lučki promet u Iranu (UNCTAD, 2010)

ISSN 0469-6255 (215-222)



* Including passenger/cargo, Vessels of 1,000 GT and above

**Ships of 100 GT and over total Merchant fleet

Figure 8 Iranian merchant fleets (UNCTAD, RMT 2004-2010)

Slika 8. Trgovačke flote u Iranu (UNCTAD, RMT 2004-2010)

As illustrated from figure 7, Iranian container port traffic enjoyed an increase, which might be affected by large amount of cargoes annually import to the country.

Iranian Shipping Market in Economic Recession / *Iransko pomorsko tržište u ekonomskoj recesiji*

Figure 8 represents the Iranian merchant fleets.

As shown in figure 8, there was a decrease in Iranian tanker fleets, which is caused by the international embargoes and changing the flag of Iranian tankers. In addition, as other countries, total merchant fleets of Iran experienced a decrease during the recession periods.

Figure 9 shows the amount of cargo loaded/unloaded in Iranian ports.

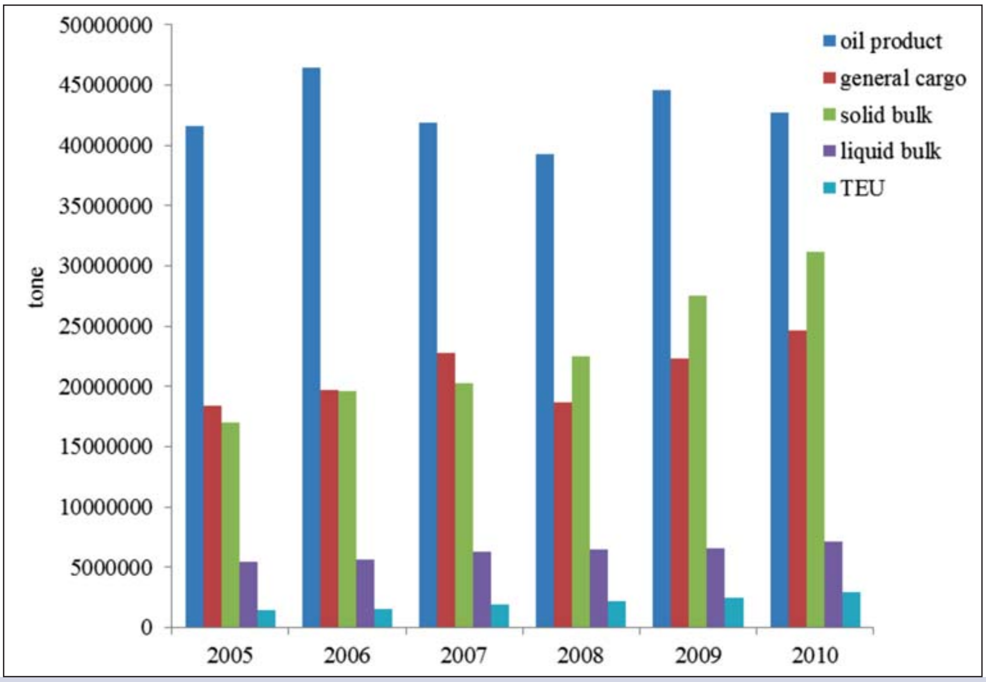


Figure 9 Amount of cargo loaded/unloaded in Iranian ports (Iranian ministry of road and transportation reports, 2000-2010)

Slika 9. Količina ukrcanog/iskrcanog tereta u iranskim lukama (Izvješće iranskog Ministarstva prometa i veza 2000-2010)

ISSN 0469-6255 (215-222)

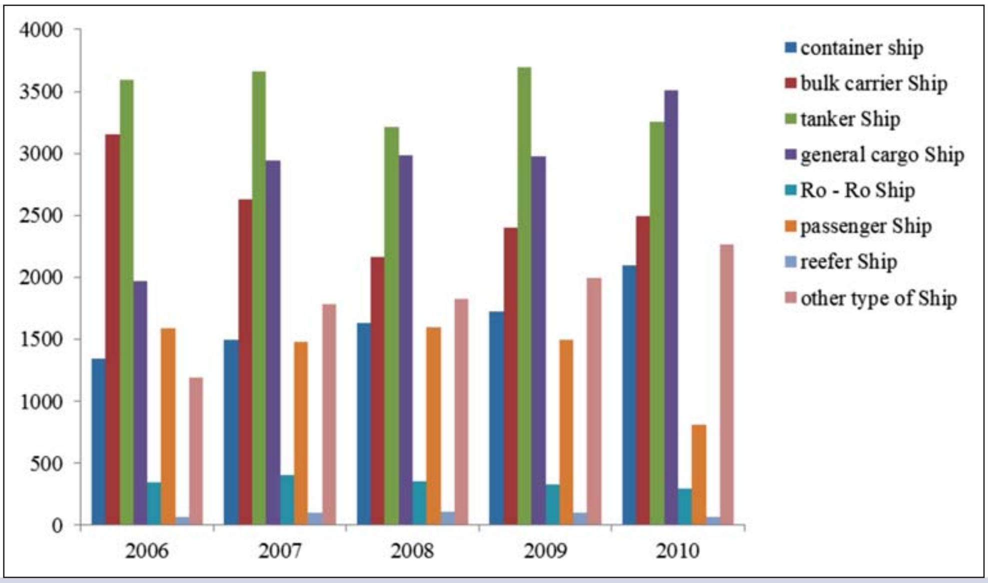


Figure 10 No. of ships called in Iranian ports (Iranian ministry of road and transportation reports, 2000-2010)
Slika 10. Broj brodova koji su ticali iranske luke (Izvješće iranskog Ministarstva prometa i veza 2000-2010)

As illustrated from figure 9, there is an increase in solid bulks, which is the result of large amount of bulk import in the country. Other types of cargo are shown variable behaviour, which is directly affected by Iranian policies and tariffs on different types of cargo.

Number of ships called in Iranian ports during 2000-2010 is shown in figure 10.

Indeed, number of container and general cargo vessels called in Iranian ports enjoyed an increase; but other types of vessels experienced a decrease in number.

The Treasury Department of US added Islamic Republic of Iran Shipping Line (IRISL), its vessels and related entities, to a list of blacklisted Iranian companies in September 2008, accusing it of shipping military-related cargo, including a chemical used in missiles, to Iran's defence ministry, through deceptive techniques so Iran's state shipping company has changed the names and ownership of most of its vessels to evade U.S. sanctions (Wall Street Journal, 2010). Figure 11 shows the number of Iranian vessels which sailed under foreign flags.

As illustrated from figure 11, there is a large increase in number of Iranian vessels under foreign flags; which may be the cause of the decrease in number of Iranian merchant fleets, as shown in figure 8.

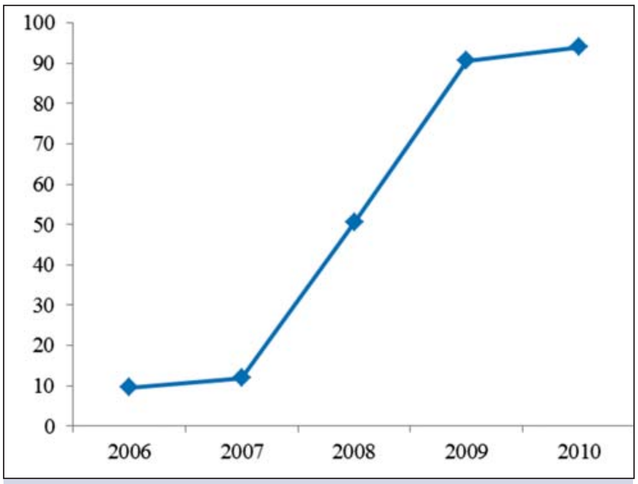


Figure 11 No. of Iranian vessels under foreign flag (UNCTAD RMT, 2004-2010)
Slika 11. Broj iranskih brodova koji viju strane zastave (UNCTAD RMT, 2004-2010)

CONCLUSION / *Zaključak*

International economic recession changed the relations in global shipping market. Such as all the countries all around the world, Iranian shipping market was affected by this recession, which was coupled with international embargoes. This paper studied the mentioned effects in Iranian shipping

ISSN 0469-6255 (215-222)

market, in particular, Iranian liner connectivity index.

Following is to be concluded on the basis of the results of this research:

- As there is an increase in liner connectivity index, Iranian vessels continue their global trade, during the economical recession.
- There was an increase in Iranian container port traffic, which is the result of amount of cargo importation in the country. Furthermore, amount of solid bulk cargoes enjoyed an increase in Iranian ports.
- Due to recession and international embargoes, total number of Iranian fleets experienced a decrease. In addition, there was a large increase in the number of Iranian ships which sail under foreign flags.
- Unlike other types of vessels, number of container and also general cargo ships has increased during the recession.

REFERENCES / *Literatura*

Barnhart, C. and Laporte, G. 2007, Handbook in OR & MS, Vol. 14, Elsevier B.V.

Central Bank of Islamic Republic of Iran, CBI (2006/07, 2007/08, 2008/2009), Annual Review, Iran.

Containerization International Yearbook, 2010.

Elsayeh, M., Mohi-Eldin, M. and Elkolla M. 2010, The impact of the financial crisis on container terminals (A global perspectives on market behavior), 26th International Conference for Seaports & Maritime Transport - Integration For a Better Future, 7 – 10 February 2010, Alexandria, Egypt: Port Training Institute of the Arab Academy for Science, Technology and Maritime Transport.

Floer, O., and Coutts, A. 2009, Potential ramifications of the global economic crisis on human-mediated dispersal of marine non-indigenous species, Marine Pollution Bulletin.

IMF, world economic outlook, September 2010.

Institute of Development Studies (IDS), 2008, Voices from the South: The Impact of the Financial Crisis on Developing Countries. IDS Report, November.

International Energy Agency- Oil Market Report, 2007-2011.

International Transport Forum 2009-10, Forum Paper, Research findings on the evolution of the world economy and its link with transport, ITF Secretariat OECD/ITF, Paris.

Iran Ministry of Road and Transportation 2011, Port and Maritime Statistic Report, 2000- 2010.

Luo, M., Fan, L. and Liu, L. 2009, An econometric analysis for container shipping Market

Melvin, M., and Taylor, M., 2009, The global financial crisis: Causes, threats and opportunities, Introduction and overview, Journal of International Money and Finance.

Ng, A. and Liu, J. 2010, The port and maritime industries in the post-2008 world: Challenges and opportunities.

OECD/ITF. 2009, Discussion Paper 2009-12.

Pagoulatos, G., and Triantopoulos, C. 2009, The Return of the Greek Patient: Greece and the 2008 Global Financial Crisis.

Reinhart, C. and Rogoff, K. 2009, This Time is Different: Eight Centuries of Financial Folly, Princeton Press.

Samaras, E. and Papadopoulou, M. 2010, The Global Financial Crisis – The Effects on the Liner Shipping Industry and the Newly, Adopted Leading Practices, 1st Olympus international conference on supply chains, 1-2 October, Katerini, Greece.

Slack, B. 2010, Battening down the hatches: How should the maritime industries weather the financial tsunami?

Steve Stecklow. 2010, Iran Shipper Evades U.S. Blacklist, Wall Street Journal, 10 April, Available at: http://online.wsj.com/article/SB10001424052702304222504575174170457394054.html, Accessed 27 October 2011.

Stijn, C., Kose, M. and Terrones, M. 2008, What Happens During Recessions, Crunches, and Busts?, IMF Working Paper 08/274 (Washington: International Monetary Fund).

The World Bank Middle East Department. 2009, First/Second quarter 2009, Lebanon.

The World Bank. 2009, Global Development Finance, Charting a Global Recovery I: Review, Analysis and Outlook 2009, The World Bank, Washington, DC.

UNCTAD, Review of Maritime Transport. 2010, United Nations, Geneva.

United Nations publication. 2009, The Global Economic and Financial Crisis: Regional Impacts, Responses and Solutions.

Wim Naudé. 2009, The financial crisis of 2008 and the developing countries.

World Bank. 2011, Commodity Price Data.

World Bank. 2011, WDI

Rukopis primljen: 18. 6. 2012.

ISSN 0469-6255 (215-222)