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Abstract
The financial crisis that started in 2007 is considered as the most synchronized global recession episode of the past seventy years. The aim of this paper is to identify the effects of the crisis on the Liner Shipping Industry and register the newly adopted strategies that have been deployed by both shippers/consignees and carriers. Moreover the paper comprehensively records what happened, why and the substantial issues incurred by the recession.

Keywords: financial crisis, liner shipping, containerization.

1. Introduction
The global economy is recovering from the deepest recession in the post-World War II era, triggered by a severe financial crisis in key advanced economies that coincided with the freezing of global financial markets and the collapse in global trade flows. The crisis originated in the United States, but it spread rapidly across markets and borders. Although it was not surprising that a global crisis would lead to a significant decline in global activity, the extent and duration of this decline represent a major area of research. (Claessens, Kose, Terrones, 2008). 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).

The study investigates the effects of the 2007 financial crisis on the container shipping industry. In the first part, the root causes of the 2007 global financial crisis are presented, its overall effects along with a comparison with previous recessions. In the second part the impact of the crisis on the container shipping industry is investigated, as well as the efforts of the shipping sector to respond to and confront the challenging situation through the adoption
of new practices. Finally, both the effects and the newly adopted practices are summarised and clearly presented, so that future research is facilitated.

2. Prior Research
The topic of the 2007 financial crisis has triggered the conduct of multiple surveys and analyses aiming at investigating the impact of the crisis on various business sectors. The sector of containerized ocean transport has not been so far systematically investigated, which signifies a gap in the academic literature. This study aims at identifying the impact of the crisis on the container shipping sector, as well as the newly adopted practices employed by the ocean container carriers.

2.1 The 2007 financial crisis: root cause, effects, comparison with previous crises
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). The crisis generated the most synchronized global recession episode of the past seventy years, as substantially every developed economy deepened into depression and many emerging and developing economies followed suit. Although the global economy started to show recovery signs and an important reduction of the real activity around the globe, the restoration seems to be inconstant and the global economy is likely to feel the adverse effects of the crisis for a long time period (Claessens and Kose, 2008).

The severe financial crisis in key advanced economies coincided with the freezing of global financial markets and the collapse in global trade flows. Although the crisis originated in the United States, it spread rapidly across markets and borders. It was not surprising that a global crisis would lead to a significant decline in global activity, albeit the extent and duration of this decline represent a major area of research. (Claessens, Kose, Terrones, 2008)

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, Kose, Terrones, 2008), resulting in a deepening economic crisis affecting worldwide productivity and employment (Floer and Coutts, 2009).

Significant forecasts were released by the World Trade Organization and the 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 (World Trade Organization, 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 (The World Bank, 2009). Although the recovery plan of the global economic recession is in progress, academics and policymakers are still trying to investigate the nature and the consequences of the crisis, in an attempt to recognise the similarities and the differences between the present and past recessions.

The current financial crisis has several features similar to earlier episodes, such as the 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, Kose, Terrones, 2008) etc.

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.

2.2 The effects of global financial crisis on the liner shipping industry

The financial recession of the post 2008 period has a significant impact on international trade, transport and logistics (Ng and Liu, 2010). The derived effects are considered to be both negative and positive, in the sense that the recession provides the carriers with the opportunity to review and establish new methods in the advent of optimization. The liner shipping industry has been influenced as well, in terms of capacity, new ship-building orders, supplied services and collaboration patterns among the key players.
2.2.1 The financial crisis negative effects

The shipping industry is considered to be capital-intensive, displaying a high debt ratio, high financial risks and unstable income. Moreover, it is also affected by oil price and exchange rate. For the above mentioned reasons, the debt paying ability of shipping companies’ represents an important standard for investors, especially during the period of economic crisis (Lin et al., 2010).

The steadily increasing low-cost manufacturing capability of the Far East countries during the period of 2005-8, consequently led to a significant increase in demand for ocean transport, with shipping rates reaching significantly high levels (Bradley et al., 2009). The current global financial crisis triggered a plunge in international trade that has affected the demand for containerized transportation, finally leading to charter rate reduction. Moreover, the volatility of the Euro/US dollar exchange rate had as a consequence the agreement on long term charters using a combination of currencies. The volume of containerized cargo was also affected by the substantial reduction in bulk carrier rates that resulted in a partial shift of cargo back to the bulk carriage (Alphaliner, 2009).

Consequently, freight rates in the containerized business have significantly declined, with the 60% decline in the Europe-Asia lane, between 2008 and 2009 being a prominent example (Alphaliner, 2009). In the Asia- Europe segment, the rate decline was incremental after the first quarter of 2008. In both the Transpacific (US-Asia WB and Asia/ US EB) and the Transatlantic (Eur-US WB and US/ Eur EB) routes the rate reduction was radical after the fourth quarter of 2008 (Containerization International – accessed 5 June 2010). The econometric model proposed by Luo et al. (2009) suggests that the freight rate reductions will continue until 2010 and then increase gradually till 2013. Besides the freight rate reductions, parts of both existing and new services have been either postponed or withdrawn (i.e. Navibulgar, closed its Europe-Black Sea network (Alphaliner, 2009), due to the fall of respective traffic volumes.

Further to changes in sailing schedules and routings, the idleness of vessels (usually the small and less profitable ones) at ports’ anchors in the absence of charters or cargo, represents an additional feature of this period (Floer and Coutts,2009; Slack, 2010).

Apart form the idle ships, the overcapacity is enhanced by the arrival of new deliveries, whose building orders were placed in previous years (Slack, 2010). More than 120 units of 12,000 TEU/14,000 TEU were expected to arrive till December 2011, if cancellations, due to the global financial crisis (Luo et al., 2009) would not accelerate the capacity balance (Alphaliner, 2009). Regarding the top carriers, Maersk Line orders for new builds consist of
58 vessels of total 408,750 TEU to be delivered till 2012. The orderbook of MSC contains 34 new vessels with a capacity of total 374,600 TEU, with the majority of them to be delivered in 2011. CMA CGM has placed 46 ship orders with a total capacity of 416,110 TEU to be delivered till 2012, with the majority to be delivered in 2010. APL Co has ordered only 11 new builds of 100,508 TEU with the majority of them to be delivered till 2012. It is important to declare that the carriers’ new orders are significantly reduced compared to previous years (Containerisation International, 2010).

The shipping sector has been also influenced by the difficult economic situation of the manufacturing companies, as the shutting down of enterprises leads to weak export demand. Characteristic was the decision of Maersk Line to layoff 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).

2.2.2 The financial crisis positive effects

Apart from the negative effects, the financial crisis gives the opportunity to shipping companies to optimize their fleet capacity, decide on the type of vessels needed to be ordered, as well as to decide on alternative shipping routes. Further practices to tackle the crisis can be deployed by the companies, including the fleet operation efficiency improvement, the fleet operation benefit improvement, the increase of single vessel Deadweight, the control of fleet costs, the build on win-win co-operations and fair competition, and the strengthening of information exchange (Min et al., 2009).

Discussion

The shipping industry represents one of the cornerstones of global economy, and thus has to develop and deploy new practices adjusted to the current situation.

Prominent is the practice of rerouting (followed by Maersk, CMA-CGM and MSC) that has begun to be applied. Carriers aim to avoid expenses, such as the Suez Canal’s tolls, and, also, to absorb the advantages offered by the implementation of longer voyages, i.e. cargo volume increase (Slack, 2010). In comparison with 2008, the containership transits through the Suez Canal have declined by 25% (Containerisation International Library, 2010)

Furthermore, the practice of Mergers and Acquisitions (M&A) is embodied in the attitude of the shipping industry, either in the form of straight sales when the market is at its peak, or as distress sales, when the market is at low. M&As are expected to flourish, due to the difficult
trading conditions and the stiff competition from the major carriers that benefit from economies of scale. In 2008, the most prominent event was the sale of Hapag-Lloyd by TUI AG to German investors (Alphaliner, 2009). Besides M&As, the strategy of Joint Ventures or Slot Charters is evident, with CMA CGM and Maersk leading by example. In some cases, the withdrawal of services from specific markets is a fact, such as MISC’s withdrawal of its shared Europe-Asia services in the Grand Alliance. Although the carriers face significant difficulties, only Senator Lines, has actually ceased operation, so far (Slack, 2010).

Export demand is influenced by supply chain decisions of consignees that may decide to search for partners in areas, where labour costs may be higher than in Asia, for instance, but transit time is shorter. The strategy of nearshoring has been adopted from many firms during the economic crisis, especially in order to cover the needs for time-sensitive cargoes, having significant impact on shipping (Slack, 2010).

The economic recession has led to the increased concentration in the Liner Shipping Industry. This is evident from the data provided by Sys (2009), mentioning that the 50% of total capacity in service was provided by 16 ocean carriers in 1995, which were reduced to 11 in 2000, remained 10 in 2003 and finally only 7 in 2008.

The scope of this study is to identify the root causes of the 2007 financial crisis, the effects on liner shipping, along with the new implemented practices. These are presented in Table 1 below.

**Table 1.** The effect of the 2007 financial crisis on the Liner Shipping Industry and the newly adopted practices

<table>
<thead>
<tr>
<th>Root causes of the 2007 financial crisis</th>
<th>Negative effects on liner shipping</th>
<th>Positive effects on liner shipping</th>
<th>Newly adopted practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive accumulation of debt</td>
<td>Overcapacity due to new deliveries</td>
<td>Fleet capacity optimization</td>
<td>Changes in sailing schedules</td>
</tr>
<tr>
<td>Toxic banking products</td>
<td>Difficult trading conditions</td>
<td>Decision on vessel types</td>
<td>Mergers &amp; Acquisitions</td>
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<tr>
<td>Interconnectedness of the markets</td>
<td>Cease of company operation</td>
<td>Alternative shipping routes</td>
<td>Joint Ventures</td>
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<tr>
<td>House price burst</td>
<td>Weak export demand</td>
<td>Improvement of fleet operation efficiency</td>
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<tr>
<td>Global linkage of the</td>
<td>Increased</td>
<td>Improvement of fleet services</td>
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</table>


3. Conclusion

The global recession has provided an experience that mostly policymakers, economists and practitioners never thought they would verify. This paper provides a comprehensive view of what happened and why according to the crisis along with the effects on the linear shipping sector. If any lessons can be learnt from historical events, is that the world after September 2007 will not be the same as it was before the economic crisis. This study addressed the topics related to the development of the shipping sector in the post 2007 world, including the corresponding leading practices. The future of the maritime industry is dependent on the time that is needed, in order to recover from the effects of the recession.

References


