Open University of Cyprus

Faculty of Economics and Management

Postgraduate (Master's) Programme of Study
MBA Master In Business Administration

Postgraduate (Master's) Dissertation

Corporate Governance and the Financial Performance of Listed Companies

Markos Karadimos

Supervisor

Anna Giannopoulou Merikas

December 2019

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Abstract

This master's dissertation investigates the challenges that arise from the implementation of Corporate Practices and the effect that the adoption or no adoption of such practices have in the profitability of listed shipping companies. Literature review illustrates the significant changes that may be observed in the structure, operation and definition of the goals that companies are required to achieve globally and what difficulties are encountered. A more detailed presentation of three listed companies highlights the complexity of regulations and the effect that they have in a company's framework of activities and interactions. The dissertation highlights the importance of shipping industry in understanding these effects due to the intense developments in the industry as a whole and in the implementation of Corporate Governance in particular. The importance of certain variables of Corporate Governance are revealed , such as board size, Board Structure with emphasis to the role of independent members, Ownership Concentration, CEO duality and Diversification through women presence in the Boards. The outcome of the statistical analysis, further supports or contradicts past empirical findings that have produced contradictory evidences regarding how profitability is affected from the Corporate Governance variables.

Περίληψη

Αυτή η μεταπτυχιακή διατριβή διερευνά τις προκλήσεις που προκύπτουν από την εφαρμογή των πρακτικών εταιρικής διακυβέρνησης και την επίδραση που έχει η υιοθέτηση ή όχι των πρακτικών αυτών στην κερδοφορία των εισηγμένων ναυτιλιακών εταιρειών. Η ανασκόπηση της βιβλιογραφίας παρουσιάζει τις σημαντικές αλλαγές που μπορεί να παρατηρηθούν στη δομή, τη λειτουργία και τον καθορισμό των στόχων που πρέπει να επιτύχουν οι εταιρείες σε παγκόσμιο επίπεδο και ποιες δυσκολίες συναντώνται. Μια λεπτομερέστερη παρουσίαση τριών εισηγμένων εταιρειών υπογραμμίζει την πολυπλοκότητα των κανονισμών και την επίδραση που έχουν στο πλαίσιο των δραστηριοτήτων και αλληλεπιδράσεων μιας εταιρείας. Η διατριβή υπογραμμίζει τη σημασία της ναυτιλίας στην κατανόηση των επιδράσεων λόγω των έντονων εξελίξεων στον κλάδο στο σύνολό του και στην εφαρμογή της Εταιρικής Διακυβέρνησης ειδικότερα. Αναδεικνύεται η σημασία ορισμένων μεταβλητών της Εταιρικής Διακυβέρνησης, όπως το μέγεθος του Διοικητικού Συμβουλίου, η Διάρθρωση του Διοικητικού Συμβουλίου με έμφαση στο ρόλο των ανεξάρτητων μελών, η Συγκέντρωση της Ιδιοκτησίας, η Δυαδικότητα του Διευθύνοντος Συμβούλου και η Διαφοροποίηση μέσω της παρουσίας των γυναικών στα Συμβούλια. Το αποτέλεσμα της στατιστικής ανάλυσης υποστηρίζει ή διαφωνεί με προηγούμενα εμπειρικά ευρήματα που έχουν δημιουργήσει αντιφατικές ενδείξεις σχετικά με τον τρόπο με τον οποίο επηρεάζεται η κερδοφορία από τις μεταβλητές της Εταιρικής Διακυβέρνησης.

Contents

Chapter 1
Introduction

Corporate Governance is crucial to the achievement of a new frontier of competitive advantage and profitability for companies globally (Chapman & Hutton, 2017). OECD (2019) indicates the dynamic nature of the changes that companies proceed with in different countries, regarding the framework and the application of corporate governance, especially in the aspects of Board Size, Board Structure with emphasis to the role of independent members, Ownership Concentration, CEO duality and Diversification through women presence in the Boards. These changes can affect not only the way that a company operates but also the financial performance of the company.

Corporate Governance significance is underlined by the various scandals that have at times seen the lights of publicity, such as for example the scandals of Enron and the collapse of Lehman Brothers. According to the OECD (1999), the Corporate Governance includes the mechanism that defines the objectives of the business and the means to achieve them, as well as the monitoring of company's performance. Moreover, as Ernst & Young (EY)'s Center for Board Matters found(2017), corporate governance is a "topic of increasing interest to policymakers, investors and other stakeholders," nevertheless , the way it is enacted by businesses is not always consistent.

The purpose of this Master's Dissertation is the literature review that could illustrate the significant changes that may be observed in the structure, operation and definition of the goals that companies are required to achieve globally and what difficulties are encountered. This Master's Dissertation also attempts to show whether it is affected and, if so, to what extent the financial performance of companies which apply Corporate Governance policies.

This Master's Dissertation demonstrates that the understanding, implementing and fully practicing from a company of the Corporate Governance policies is a major challenge for all businesses, especially for listed companies, as there are further regulatory frameworks outside the laws and regulations governing them. This Master's Dissertation also demonstrates that companies need to implement appropriate policies, as Corporate Governance variables significantly affect their profitability.

Two rival theoretical approaches make contradictory recommendations for the design of corporate governance systems (Tosi et al. 2003, p. 2055), agency theory and stewardship theory. The shipping industry, as a sector with unduly specialized characteristics, might present more profound results regarding the implementation of Corporate Government policies that were conducted and either imposed by laws or regulations, or voluntarily created by companies, given that this is a sector with strong conservative traditions and relatively limited transparency due to the widespread use of the contentious practice (Shaughnessy & Tobin, 2007) of flags of convenience. The sector is of particular interest as it is directly influenced by internal and external factors such as increased world trade, increased protectionism, technological developments, and environmental concerns, among others. By focusing on the shipping sector, we can draw conclusions by looking at its evolution in corporate governance, without the presence of factors that influence other sectors(Andreou et al.,2012).

In order to illustrate the changes in the structure and operations of companies, this Master's Dissertation examines in a more detailed level two shipping companies listed in New York Stock Exchange, and outlines the data that are important for drawing conclusions about our dissertation. In order to compare the degree of adjustment of shipping, one company from another industry is also examined.

In order to investigate the impact of corporate governance on profitability this master's dissertation selects a sample from listed shipping companies in the New York Stock Exchange. From the 43 companies listed the37 have been selected covering the 6-year period i.e. from 2013 to 2018 for which it was possible to extract from their annual reports individually all required corporate governance data. Data relating to profitability have been taken out from Bloomberg database. A panel data for six years is used because panel data are more informative, provide more variability, less collinearity among the variables, more degrees of freedom and more efficiency.

The master's dissertation is organized as follows:

Chapter 1 provides an introduction to the Master's Dissertation. Chapter 2 provides the definition and basic theory regarding Corporate Governance in general, as well, its purposes, how it is evolving and in which degree is adopted worldwide. Chapter 3 presents a review of Corporate Governance's examined variables literature. Chapter 4 presents a global shipping industry review. Chapter 5 presents specific Corporate Governance characteristics and the compliance of three NYSE listed companies. Chapter 6 presents the methodology, analyzes the findings and provides a discussion on the results. Finally, chapter 7 provides a conclusion that includes implications for further research.

Chapter 2
Definition & Basic Theory

The consecutive collapses of companies and the simultaneous revelation of scandals that led to this outcome brought forth the corporate governance. Corporate governance refers to a set of principles by which a business seeks to be responsible for its organization, operation, management and control, with the aim of maximizing its value in the long term and safeguarding the legitimate interests of its affiliates (Colley , 2005).

In his definition, Friendman (1970) first mentioned the concept of corporate governance as the ability of senior management of a business to meet the expectations of its owners and shareholders, within the framework of laws and regulations, as well as and the value system of the society in which it operates, giving ,thus, the economic as well as social dimension of the term.

According to the OECD (1999), the Corporate Governance also includes the mechanism that defines the objectives of the business and the means to achieve them, as well as the monitoring of company's performance. The definition of Corporate Governance is further enhanced by the OECD in 2004, stating that it is a system of relationships between management, the Board of Directors , shareholders and stakeholders and that adhering to good Corporate Governance practices will create a climate of investor confidence, reduce costs capital, improving the functioning of financial markets and attracting more stable financing flows. The OECD, formulating the ED principles in 1999 and revised in 2004, covers the following Corporate Governance areas:

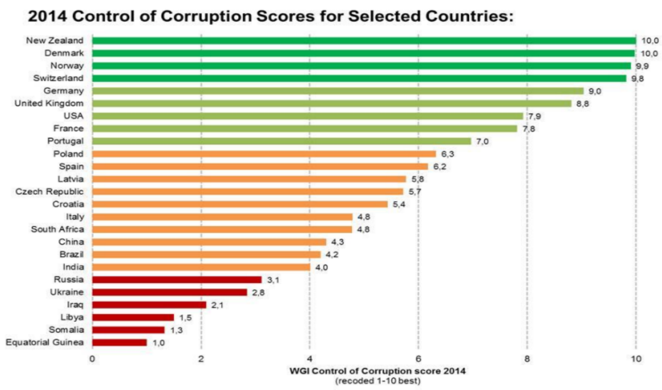
- The creation of an Corporate Governance framework common to most countries in the world
- The rights and fair treatment of shareholders
- Institutional investors and stock markets

o The role of the members concerned

o The disclosure and transparency of the operating and performance elements of the business

o The Board of Directors

O'Donovan (2008) gives a similar definition and emphasizes that the aim of corporate governance is to ensure that companies that are not managed by their owners are run in the best interest of the shareholder. He notes, however, that “to date, too much of corporate governance debate has centered on legislative policy, to deter fraudulent activities and transparency policy which misleads executives to treat the symptoms and not the cause” (O'Donovan, 2008).



Graph 1: Purpose and utility of corporate government

Source:www.againstcorruption.eu

The Corporate Governance should have favorable benefits for all parties involved and safeguard the interests of all stakeholders in order to safeguard the company's growth and investment interest (Monks & Minow , 2011).

How useful Corporate Governance is becomes perfectly understood by the various scandals that have at times seen the lights of publicity, such as for example the scandals of Enron and the collapse of Lehman Brothers, companies that were major forces and seemed impossible to fail. The lack of transparency in the operation of business organizations, the rudimentary functioning of the internal control system or even its complete absence are some of the reasons for these scandals.

A successful model of Corporate Governance usually includes (Colley , 2005) :

- Appropriate composition of the Board of Directors with independent and separate responsibilities from the management bodies
- Management bodies with clear roles
- Remuneration, evaluation and development systems for executives
- Make decisions with transparency, integrity and responsibility
- Internal control procedures for risk management
- Providing information to investors and the wider social environment
- Proper management of confidential information by all employees
- Social responsibility

Basic Theories of Corporate Governance

According to Donaltson and Davis (1991);Donaltson and Preston(1995);Davis et al.(1997) there are five fundamental theories of Corporate Governance:

- Agency Theory
- Stewards hip Theory
- Stakeholder Model
- Transaction Cost Theory
- Managerial Hegemony Theory

For the purposes of our master's dissertation, we will briefly refer to the first two as they relate to the analysis of specific variables of corporate governance.

The most important aspects highlighted by agency theory and stewardship theory are shown in the table below:

	Agency theory	Stewardship theory
Theoretical basis	Economics	Organizational psychology and sociology
Performance criterion	Shareholder value	Interest of the company/ Stakeholder value
Owner–manager-relationship	Goal conflict	Goal alignment
Model of man	Individual opportunism	Pro-organizational behavior
Managerial motivation	Extrinsic	Intrinsic
General approach to uncertainty about managerial behavior	– Distrust – Avoidance	– Trust – Acceptance
Representative design recommendations	– Monitoring as primary board role – Independence of directors – Sharing decision rights – Incentives	– Advice as primary board role – Large discretion for management decisions – Fixed salary

Table 1: Contrasting agency theory and stewardship theory, Source: Jens Grundei

Are managers agents or stewards of their principals? Logic, critique, and reconciliation of two conflicting theories of corporate governance (Grundei ,2008).

The prevailing theory applied in the study of Corporate Governance is the Agency Theory (e.g.Zajac and Westphal 1998; Daily et al.2003) which, nevertheless, has received various criticisms regarding its contribution to the design and implementation of governance mechanisms (Donaldson, 1990; Muller, 1995).

According to the theory, problems arise from the separation of ownership and control, as the owners (agents) of the business entrust the accomplishment of their financial activities to specialists (representatives) who may, for personal reasons, take actions contrary to the company's interests thus requiring control over the effectiveness and efficiency of the management it performs, which becomes both difficult and costly for the owners (Shleifer & Vishny , 1997) .

Alternatively, Stewardship Theory is suggested, which argues that executives are motivated to act in the interests of their agents motivated not only by the incentive of payment but also by non-financial incentives such as satisfaction from the results of their work and the achievement of goals, their personal development and recognition, respect for the authority and professional ethics (Donaldson and Delvis, 1989, 1991).

Consequently, two rival theoretical approaches make contradictory recommendations for the design of corporate governance systems (Tosi et al.

2003, p. 2055), each involving advantages as well as disadvantages. Hence, it seems to be not recommendable to rely on either one theory alone to tackle issues of corporate governance.

The evolution of the framework and the application of corporate governance, although it has long been a business concept as we have seen in the relevant literature, its forced implementation has emerged relatively recently and its importance has been reinforced following the scandalous collapses we have mentioned and global financial crisis of 2007-2008.

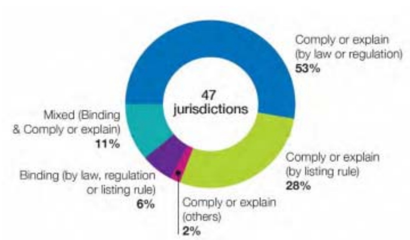
The establishment of a committee by Adrian Cadbury following the bankruptcy of Maxwell Communication in 1990, which is one of the first attempts to systematize all U.K. companies in specific corporate governance systems, address the concerns increasingly voiced at that time about how UK companies dealt with financial reporting and accountability and the wider implications of this. The Committee was sponsored by the London Stock Exchange, the Financial Reporting Council and the accountancy profession. It published its final report and recommendations in December 1992(Spira & Slinn, 2013). The code adopted had a positive impact on business in U.K. (Dahya, McConell & Travlos, 2002).

In United States of America the Sarbanes-Oxley Act, in response to a series of scandals such as ENRON,TYCO INTERNATIONAL ,ADELPHIA & WORLD COM together with new listing requirements, governance rating agencies, and tougher judicial opinions about corporate governance issues led to the seismic shift in corporate governance policies applicable to American public corporations(Clark,2005) .

The OECD in 2004 drafted the corporate governance principles that have been applied to date (OECD, 2004) and have been mentioned above.

Looking at the most recent developments in the implementation of corporate governance, we will refer to its elements as presented in OECD FACTBOOK (2019).

The review of the factbook (OECD, 2019), stresses the dynamic nature of the changes being made by the responsible authorities worldwide. An 84% have changed their corporate or securities law since 2015. About half have made the changes over the last two years. The balance between formal regulation and a “comply or explain” approach in the corporate governance framework varies among jurisdictions. Countries choose different blends of legal and regulatory tools, some of them by applying a “comply or explain” framework while others are addressing corporate governance issues through laws, regulations and listing requirements. In figure, we see that national authorities in a 29% percentage among other custodians are committed to settling and enacting the compliance codes.



Implementation mechanisms of corporate governance codes, %

Custodians of corporate governance codes, %

Graph 2: Implementation mechanisms   Graph 3: Custodians

Source: OECD, 2019

In the United States, the framework for listed companies has a binding approach . That is the reason we choose to investigate a sample from NYSE listed firms in order to conduct our masters’ dissertation.

Jurisdiction	Key national corporate governance codes and principles	Implementation mechanism			
		Basis for framework	Approach	Disclosure in annual company report	Surveillance
United States	NASDAQ Listing Rules	Law or regulation, Listing rule	Binding	Required	Securities regulator & Stock exchange
	NYSE Listed Company Manual		Binding	Required	

Table 2: The main elements of the regulatory framework: National codes and principles (PART)

Source: OECD,2019

More findings in OECD Factbook regarding the rights of shareholders and key ownership functions as the informed use of shareholder rights and the effective exercise of the ownership function are key elements of corporate governance:

- All jurisdictions require companies to provide advance notice of general shareholder meetings, with a majority establishing a minimum notice period of between 15 and 21 days, while another third of jurisdictions provide for longer notice periods.
- Approximately 80% of jurisdictions establish deadlines of up to 60 days for convening special meetings at the request of shareholders, subject to specific ownership thresholds. This is an increase from 73% in 2015.
- Almost all jurisdictions allow companies to issue shares with limited voting rights. In many cases, such shares come with a preference with respect to the receipt of the firm's profits .Also, a growing majority of jurisdictions require listed companies to publish voting results promptly (within five days) after the general meeting, as well as to prescribe a formal procedure of vote counting.
- Legal and regulatory frameworks address related party transactions through a combination of measures, such as mandatory disclosure, board approval, and shareholder approval. Regarding the disclosure of related party transactions, 82% of jurisdictions now require use of International Accounting Standards (IAS24) for disclosure of related party transactions, while an additional 8% allow flexibility to follow IAS 24 or the local standard. Two-thirds of jurisdictions surveyed require or recommend board approval of certain types of related party transactions. The types of RPTs brought to the board and conditions for their consideration vary. Shareholder approval of related party transactions can be regarded as an alternative or complement to board approval, but is often limited to large transactions and those not on market terms.
- In framing mandatory takeover bid rules, four-fifths of jurisdictions take an ex-post approach.
- During the last decade, many OECD countries have experienced dramatic increases in institutional ownership of publicly listed companies.

Significant discrepancies remain, however, with regard to the ability and incentives of institutional investors to engage in corporate governance. Many jurisdictions impose different requirements for different types of institutional investors, but voluntary codes are also increasingly common. Some jurisdictions oblige or encourage institutional investors to exercise their voting rights. Institutional investor disclosure of voting policies is required or recommended in 75% of jurisdictions, whereas only 47% require or recommend disclosure of actual voting records. All but two jurisdictions provide a framework for institutional investors to address conflicts of interest. However, disclosure of policies for managing conflicts of interest and their implementation is less common, required or recommended in 57% of jurisdictions. Nonetheless, this is a significant increase from 2015, when just 32% required or recommended such disclosure. Some jurisdictions provide specific requirements or recommendations with regard to various forms of ownership engagement, such as monitoring and constructive engagement with investee companies and maintaining the effectiveness of monitoring when outsourcing the exercise of voting rights.

Regarding the corporate board of directors as different national models of board structures are found around the world:

- One-tier board systems are favored in twice the number of jurisdictions as two-tier boards, but a growing number of jurisdictions allow both one and two-tier structures. Limits on the maximum size for boards are rare, existing in only 10 jurisdictions. Most jurisdictions impose minimum limits on board size of three to five members. Three-year terms for board members are most common practice, while annual reelection for all board members is required or recommended in seven jurisdictions. Despite differences in board structure, almost all jurisdictions have introduced a requirement or recommendation with regard to a minimum number or ratio of independent directors. The recommendation for boards to be composed of at least 50% independent directors is the most prevalent voluntary standard, while two to three board members (or at least 30% of the board) are more commonly subjected to legal requirements for independence. Some jurisdictions link the board independence requirement with the ownership structure of a company. The percentage of jurisdictions requiring or encouraging the separation of the board chair and the CEO has risen sharply in recent years to 70%. National approaches on the definition of independence for independent directors vary considerably, particularly with regard to maximum tenure and independence from a significant shareholder. Many jurisdictions also establish a maximum tenure for board members to be considered independent. Only China and some European countries have requirements for employee representation on the board.

- Nearly all jurisdictions require an independent audit committee. Nomination and remuneration committees are not mandatory in most jurisdictions, although more than 80% of jurisdictions at least recommend these committees to be established and often to be comprised wholly or largely of independent directors. Requirements or recommendations to assign a risk management role to board level committees (87% of jurisdictions) and to implement internal control and risk management systems (90%) have grown sharply in recent years.
- In almost all jurisdictions, shareholders can nominate board members or propose candidates, and there has been a substantial increase in the number of jurisdictions that have established majority-voting requirements. Nearly three-fourths of jurisdictions set out general requirements or recommendations for board member qualifications. Some jurisdictions give more emphasis to the balance of skills, experience and knowledge on the board, rather than on the qualifications of individual board members. There has been a significant increase in the number of jurisdictions requiring or at least recommending disclosure of relevant information to shareholders about board candidates. The market for managerial talent has gradually developed in some European countries and the United States.
- Nearly all jurisdictions have introduced a mechanism for normative controls on remuneration, most often through the "comply or explain"

system. A majority of jurisdictions now set forth a requirement or recommendation for a binding or advisory shareholder vote on remuneration policy. Binding votes on remuneration amounts have also become common (39%), with another 22% of jurisdictions requiring advisory votes. Besides the classification between binding and non-binding, there are wide variations among "say on pay" mechanisms in the scope of approval. The trend toward increased transparency of company remuneration policy and remuneration levels has continued; nearly all jurisdictions surveyed now have a requirement or recommendation for the disclosure of the remuneration policy and the level/ amount of remuneration at least at aggregate levels. Disclosure of individual remuneration levels is now required or recommended in 76% of jurisdictions.

- A growing number of jurisdictions have adopted measures to promote women's participation on corporate boards and in senior management, most often via disclosure requirements and regulatory measures such as mandated quotas and/or voluntary targets.

Regarding flexibility and proportionality in corporate governance, since policy makers have a responsibility to establish a regulatory framework that is flexible enough to meet the needs of corporations that operate under widely differing circumstances. Only then do governments provide market participants with the right incentives to exploit new business opportunities that create value and ensure the most efficient use of capital and other corporate resources.

- Company size and the listing status of a firm are the most common reasons for allowing flexibility and proportionality (Table).

The use of flexibility mechanisms and their application by jurisdiction

Flexibility mechanisms	Board composition	Disclosure of information	Major shareholding disclosure	Pre-emptive rights	Related party transactions	Say on pay	Takeovers
Accounting standards	0	4	0	0	4	1	0
Maturity of firm	4	2	0	1	3	3	1
Ownership/ control structure	12	4	6	7	10	2	14
Legal form	16	7	5	9	6	9	6
Size	29	17	9	3	11	11	9
Listing/publicly traded	28	27	24	7	21	25	16

Source: OECD Survey of proportionality and flexibility covering 7 areas of corporate governance regulation.

Table 3: Use of Flexibility mechanisms. Source: OECD

- In many countries, the statutory requirements with respect to the board's composition, committees and qualifications are therefore quite limited.
- Jurisdictions increasingly provide shareholders with an opportunity to exercise either binding or advisory votes on executive pay.
- In most jurisdictions, independent directors are also given a key role in the review and approval processes of material related party transactions. In many cases where there is a requirement for shareholder or board approval, various quantitative criteria—such as thresholds based on market capitalization, annual turnover and total assets—allow for proportionality.
- Strengthening disclosure requirements for certain types of companies, such as large companies and group companies, is also used as a flexibility and proportionality tool
- In virtually all jurisdictions, this has resulted in reporting requirements with respect to shareholdings above a certain thresholds and of significant changes in the size of existing shareholdings. Some scope for flexibility and proportionality still exist, for example with respect to the size and the purpose of the shareholdings. The rationale for such flexibility can be linked to the administrative burden for certain types of shareholders and to maintain incentives for shareholders to identify and build a portfolio of what they may consider being an undervalued stock.
- Some jurisdictions, notably the United States, leave it to the bidder's discretion how to approach the takeover process and do not require a mandatory bid regime. A majority of jurisdictions assess the fairness of the offer. A majority of jurisdictions have also established a mandatory bid regime. However, 32 of 39 jurisdictions also have criteria that allow for flexibility and proportionality in applying such requirements.
- In the area of pre-emptive rights, 31 out of the 39 jurisdictions have criteria that allow for flexibility and proportionality. Some jurisdictions have more than one criterion. The most frequent criteria are the ownership/control structure and the listing/publicly trading and legal form (75% of jurisdictions).

In order to obtain a more realistic picture of the situation regarding corporate government of NYSE listed companies, we will examine and comment how two listed companies from shipping industry are addressing the issues of Corporate Governance, namely COSTAMARE INC. and Danaos Corporation. Furthermore, we will compare with a firm from other industry, Novo Nordisk, a pharmaceutical company, and we will comment on the findings.

The corporate governance model of the shipping firms is under extensive dynamic adjustment. Core reasons for that include the corporate transformation of the shipping firms from private and family run into publicly listed (Syriopoulos &Tsatsaronis, 2011). We are examining the situation of mandatory compliance of listed shipping companies with us securities law including Sarbanes-Oxley Act and the New York Stock Exchange Corporate Governance Listing Standards.

Chapter 3
Review of literature Regarding Corporate Government variables

A plethora of studies addresses the issue of the impact of corporate governance variables on firm profitability. More specifically, opinions regarding the impact of the size of the Board on the literature vary. According to Yermack (1996); Conyon, Peck (1998);Hossain et al. (2001); Andres et al. (2005);Mashayekhi, Bazaz (2008);Frick, Bermig (2009) , large boards have negative effect in profitability and may be less effective than small ones. That is because large council causes representation problems. Shareholders, due to diversified portfolio, lack of knowledge, skills and time, outsource management to delegates making them intervals between the shareholder and his company and these delegates should be checked for the effectiveness and efficiency of the management that they exercise (Jensen & Meckling, 1976).

On the other hand, Linck et al. (2008) argues that board size positively affects business profitability, due to the advantage of expert advice and diversity of experience, skills, nations and genders. Great numbers of people are able to monitor and record managers' decisions and actions (Nicholson & Kiel, 2003).Furthermore, empirical support found in literature (Mak & Li, 2001) strongly supports the idea that there is a host of advantages in larger boards (Wu, 2003). Small boards may cost less and loaf less, but are not able to monitor effectively (Rashid, 2011).

Lipton and Lorsch (1992) argue that boards of eight or nine members are the most effective. According to these authors, limited time in meetings does not allow them to express opinions and ideas, if they exceed this optimum number. Jensen (1993) lowers this number to seven or eight members saying that more members function less effectively and are easier for the CEO to control. Empirical support for these arguments (Yermack, 1996) shows a significant negative correlation between Tobin's Q and board size for large public firms in the United States (US).

From an agency perspective, it is assumed that a larger board is more likely to be attentive regarding agency problems for the reason that a greater number of people will be evaluating management actions (Nicholson & Kiel, 2003),since larger companies need a greater number of directors in order to monitor and control firm's activities (Yermack, 1996). Even though Mak and Li(2001) showed a significant and positive correlation between Tobin's Q and board size for Singapore firms in OLS regressions , agency theorists recognize that there is an upper limit to boards (Huse, 2007) with a maximum of eight directors(Jensen,1993).A greater number would probably impede the performance of the board by interfering group dynamics.

From a resource dependence perspective, according to Nicholson & Kiel (2003), big and diversified firms appoint more directors in order to gain access to greater range of resources that are necessary for their operations.

In a more recent study by Mohan, Aswathy and Chandramohan,2018 , panel data analysis showed board size's significant negative impact on firm performance, while Dzingai and Fakoya,(2017), determining the relation between board size and return on equity (ROE), find a weak negative relationship. Balagobei, (2018) reveals that board size has significant impact on ROA and Tobin's Q indicating negative relationship with firm performance, suggesting that small boards perform with better results.

Finally, Dimitropoulos, Asteriou (2010); Dung To Thi (2011) find no significant correlation between board size and profitability. Dung To Thi (2011) explains that due to the fact that his sample includes Vietnamese companies that have recently entered the market, thus Corporate Governance principles have not yet been fully understood and assimilated.

In one of the relatively few studies regarding Corporate Governance in shipping industry, Andreou et al. (2014) found that the number of board members plays an important role regarding investment's efficiency. More specific they show that bigger board size performs lower sub-optimal investments. Syriopoulos and Tsatsaronis (2011) contradicted this view and found that small number of board members results in better decision making.

The board of directors plays a key role as the core corporate governance mechanism that controls managers' actions and performance and lines up shareholder's interests with management (Rose, 2005; Brennan, 2006). It consists of executive and non-executive independent members. Boards give strategic lines (Johnson, 2005) and also play the role of whistle-blower when identify problems(Salmon, 1993).Considerable academic research followed the collapse of big scale firms including Enron, WorldCom and HIH insurance, (Braun & Sharma, 2007).

According to Fama and Jensen (1983), independent directors on the board play a fundamental role in promoting good governance due to market appreciation and good acceptance towards them. The presence of independent non-executive members on the board has a positive impact on the profitability of the company, as they can provide specialized knowledge, evaluate strategic decisions, control functions and remove ineffective executives (Weisbach, 1987; Mashayekhi, Bazaz, 2008). In addition, independent non-executive members can provide a much higher degree of objectivity in their evaluation of the company's situation, particular in times of major restructuring events such as mergers and acquisitions. On the other hand, a stream of supporters such as Hossain et al. (2001), Yermack (1996) says that independent non-executive members' actions are significantly restrained by the lack of time and necessary information. Additionally, independent non-executive members may be appointed for political reasons, thereby reducing business performance or being bound by political constraints (Agrawal, Knoeber, 1996).

Some studies, examining the ratio of non-executive to executive directors (Weisbach, 1988; Pearce & Zahra, 1992; Daily & Dalton, 1993; Rosenstein &Wyatt, 1994; MacAvoy & Millstein, 1999) argue that a positive relationship between board composition and firm performance exists. On the other hand, various studies have found no such relationship (Bhagat & Black, 2002; Daily & Johnson, 1997; Dulewicz & Herbert, 2004).Moreover, findings in other studies suggest that introducing external directors can harm firm performance as it might deprive boards of valuable firm and industry-specific knowledge (Finegold, Benson & Hecht, 2007).

Examining maritime industry and the role that corporate governance plays, Randoy et al. (2006) find out that a high level of board independence improves firm profitability. Syriopoulos and Tsatsaronis (2011) on the other hand, found a negative relation between board independence and shipping firm financial performance. A more recent study by Andrikopoulos et al.(2019), focusing in the shipping industry board interlocks as a measurement of board independence, finds that profits and interlocks are bidirectional related, indicating the positive effect that interlocking directorates have on asset returns.

Andreou et al.(2014) findings provides support to the thesis that independence directors in shipping industry by serving on other firm's boards, they gain expertise , skills and experience for better decision making (Ashbaugh-Skaife et al., 2006) . As Andreou et al.(2014) found, there is negative and significant relationship between firm's Tobin's Q and independence directors measure and these findings supports the arguement that these directors contribute to higher performance of maritime firms and contrast the view that are too busy to efficiently participate in decision making and management monitoring(Fich and Shivdasani, 2006).

The initially dominant belief in literature was that greater ownership concentration by managers benefited shareholders, since managers themselves were motivated to increase the value of the company (Jensen and Meckling, 1976, Morck, Shleifer and Vishny, 1988, Stulz, 1988). On the other hand, if managers own a significant stake, they are likely to want to further strengthen their position and lead to overinvestment that may have a negative present value, thereby reducing the company's wealth (Demsetz, 1983, and Fama and Jensen, 1983). Muller-Kahle(2012) examined the impact of dominant ownership to firm performance . The author categorizes dominant owners in three classes: pressure resistant owners, pressure sensitive owners and CEO owners and examines them in conjunction. The study shows a negative relationship between CEO dominant ownership and firm performance, which supports the entrenchment hypothesis (Demsetz, 1983; Fama & Jensen, 1983). Firms with pressure resistant dominant owners are more likely to have better firm performance than pressure sensitive dominant owners using both market and accounting based measures which supports prior research that pressure resistant owners can impact strategic decisions in the firm (Kochhar & David, 1996).Scholars (Wook Joh , 2002; Ehikioya , 2009) find that ownership concentration positively affects profitability . Yeo et al. (2002) contrariwise to these researchers reported that ownership that is more concentrated leads to fewer opportunities for earnings management.

Concerning shipping companies, the industry consists of companies with concentrated ownership structure and family owners in numerous firms (Andreou et al., 2014). Large stakeholders might affect firm performance either positively or negatively; findings in literature present that there might be entrenchment effects (La Porta et al. ,1999) or alignment effects (Shleifer and Vishny , 1986) , depending on the proportion of dominant owners. Furthermore, according to Fama and Jensen (1983), there is a positive outcome if there are family relationships among ownership and management, an argument also supported more recently by Syriopoulos and Tsatsaronis (2011). Tsionas, Merikas and Merika (2012) support the argument that ownership dominance is positively and strongly associated with better firm performance through their survey of a sample near 60% of total listed shipping firms.

Ceo Duality applies when the same person serves as a Chief Executive Officer and President of the Board of Directors and constitutes another one controversial mechanism of Corporate Governance (Syriopoulos and Tsatsaronis, 2011). The two theories dealing with Corporate Governance , Agency Theory , that highlights agency costs and managerial opportunism(Zona et al.,2015) assuming that the CEO should be supervised to be effective(Peng et al.,2007) and Stewardship Theory , that assumes managers are 'stewards' that work for owners interests(Ramdani and Witteloostuijn,2010), focusing attention on CEO duality as a unity factor(Donaltson and Davis,1991) , provide controversial arguments.

CEO that serves also as a chairman might be driven to manipulate BoD satisfying his own ambition but probably far from shareholders's benefits, resulting to underperformance (Rechner and Dalton, 1991). On the other hand, a strong CEO/Chairman position secures unity of command resulting in efficient and fast decision-making (Peng et al, 2007).Further CEO duality research continuous being equivocal. The data analysis of Rutledge, Karim & Lu (2016) results to the conclusion that CEO duality is associated with lower performance. Cornett et al, (2008) work results to the same findings as Daily and Dalton (1994) previously also concluded, the negative effect of CEO duality on firm performance. Contrariwise, Krause & Semadeni (2013) found that CEO non-duality has negative effects, Ramdani and Witteloostuijn (2010) found a positive relation between duality and performance, Baptista et al (2011) found that duality has a positive impact in various indicators of company performance such as Return on Equities, Return on Assets and Market to Book Value.

Ceo duality in shipping firms has been analyzed in the work of Tsatsaronis and Syriopoulos(2011). According to the scholars, agency theory is supported, since Ceo non-duality exerts a positive impact in firm performance. Evidences for shipping industry are presented also by Andreou et al.(2014) , yet the conclusions are different , since the scholars in this study reach to the conclusion that there are many benefits in maritime industry regarding firm's performance. This finding supports the stewardship theory, which argues that CEO duality, moves in lockstep with powerful and decisive leadership of one manager whose decisions are value added (Donaldson and Davis, 1991).

Another component of the Board's composition is the presence of women in it. Carter et al. (2003) report that diversification on the board increases corporate performance as people of different gender, origin or culture tend to ask questions that 'traditional' members would not ask. In a complex professional environment, businesses should make use of all available resources for effective competition, and women are empowered to do so through creativity and innovation. Smith et al. (2006) emphasize that female board members provide unique perspectives, experiences, and enhance decision-making processes, encouraging other members to adopt strategies that are more effective. They also enhance the image of the business, having a positive effect on customer behavior. On the other hand, there are some who argue that the presence of women has a negative impact on profitability and that is why women are more averse to risk (Vera & Martin, 2011). Ahern and Dittmar (2011) demonstrated a negative effect in stock market price and deterioration in asset value during the years that followed implementation in diversity legislation in Norway, due to non-experience and inefficiency of the board structure.

More empirical results in the matter, present a strong interaction between womenin senior positions and firms' financial performance. McKinsey (2010) found that boards with high proportion of female board members resulted in a 56% higher operating profit comparing to male-dominated boards. Ernst & Young (2011) survey detected that the presence of at least one female on the boards of the 290 largest publicly listed companies delivered higher earnings compared to companies that did not have women board member. Moreover, Torchia et al.(2011) sets 3 as the "magic" number that boosts firm's performance and Dunn (2012) demonstrates women's influence in male board members with enriched knowledge and skills. Adams and Ferreira (2008) conclude that women's presence in European firms' boards positively affects ROA and firm performance in general. Furthermore, they examined the reasonable argument that well-performed firms choose to hire more women to staff their boards.

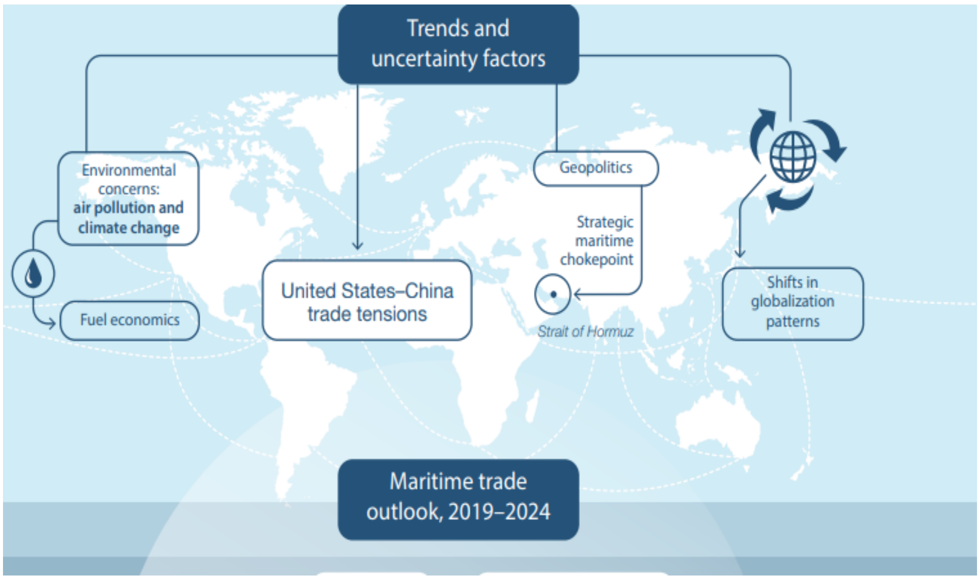
The above studies demonstrate the benefits that shipping industry can acquire by women's presence on boards. Despite the notably low percentage (6%) of women's participation in the board composition of shipping companies (Pastra et al.,2015) , Melas(2019)increased this figure to 11% in 2015, observing the percentage's tendency to go up among the years, since women on boards seem to consistently play an added value role regardless the sector or geographical area the firm operates(Campell and Minquez –Vera ,2008;Rose,2007) .

It appears that corporate governance variables and their effect on profitability has been at the center of attention for scholars as well as practitioners. In shipping, a limited number of studies has investigated the issue, during and before the major financial crisis of 2008-2011. In this master's dissertation, we try to investigate the impact of corporate governance variables on the profitability of a sample of US listed shipping companies in the period 2013-2018 and compare our results against the findings of the literature.

Chapter 4

Shipping Industry Review

According to UNCTAD (United Nations Conference on Trade and Development) 2019 reviewof Maritime Transport, international maritime trade lost momentum in 2018, even though the milestone of 11 billion tons was reached in the same year. Further examining maritime industry basic trends in UNCTAD review, both for 2018 and 2019, a growing seaborne trade is demonstrated, 4% and 2, 7% respectively, with positive prospects, together with growth in fleet capacity. Fleet capacity showed improvement after 5 years decelerating growth. Faster seaborn trade due to stronger global demand surpassed the growth in global tonnage and thus the market balance was affected resulting in significantly improved freight rates and earnings. On the other hand, exogenous factors such as trade protectionism that arises from the tensions between China and the USA, global energy transition and the structural shifts in China economy together with inward looking policies create an uncertain environment for the industry. Maritime business might be positively affected by the developments in e-commerce and digitalization. There are also possibilities for positive effect from Belt and Road Initiative (BRI), a development strategy proposed by China that focuses on connectivity and cooperation on a trans-continental scale. BRI can substantially reduce shipment times and trade costs for BRI economies (up to 3.2 and 2.8 percent, respectively) and for the world as a whole (up to 2.5 and 2.2 percent, respectively) (De Soyres et al., 2019). In the below graph, factors that determine the course of global shipping are illustrated.



Graph 4: Trends and uncertainty factors

Source: Review of Maritime Transport 2019

Liners/containerships are important for world economy as they transport products of manufacturing and handcraft industries, helping economic development and having higher value per unit of weigh (Goulielmos, 2017) and according to McConville (1999) and Stopford (2009) they earn 40% - 60 % of world shipping revenue. The consolidation in liner shipping through strategies of M&A (Merge and Acquisitions) forms alliances and the joint forces of carriers empowers their bargain ability to the point of transforming to a loose monopoly(Sys,2009). The formation of the allies comes as a respond to a series of recent developments that according to Sys et al (2011), deeply affect liner shipping: globalization, deregulation, vertical/horizontal integration, increasing cooperation, rationalization, information technology, consolidation and increasing concentration.

Further examining the results of UNCTAD review for years 2017 & 2018, it is demonstrated that competition among ports led also to lower loading/unloading charges, since carriers invest in fully or semi dedicated terminals (Kaselimi et al., 2011). As a result, ports became part of the above-described global alliances. Container shipping lines have become major players in the container terminal market by entering key ports, using shareholdings, joint ventures with local or global terminal operators, sister companies or subsidiaries focused on terminal operations (Parola et al., 2013; Satta and Persico, 2015). The formation of strategic alliances has resulted in a more complex relationship between the terminal involvement of these alliance members and actual port calls (Parola et al., 2014; Satta et al., 2014).

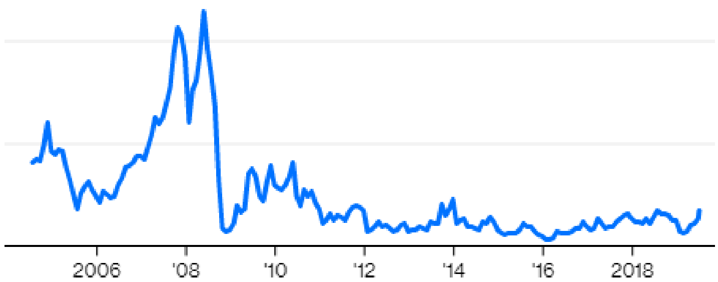
Marine vessels owned and operated by corporations account for about 3% of total global greenhouse gas(GHG) emissions and if no action is taken, the amount will increase to 18% by 2050 (Helfre and Boot,2013). This amount is substantial and growing fast. Due to shipping companies' corporate responsibility policies towards the environment, there is a strong commitment to reduce greenhouse gas emissions (McKinnon, 2007). Furthermore, January 1st, 2020 is the day on which the Sulphur limit imposed under *IMO (International Maritime Organization) 2020* comes into effect (IMO,2019) and constitutes a massive change that will demand rapid adjustments across the global fuel supply chain to comply with the deadline. Most probably, operating fuel costs and price volatility will be affected, driving carriers to pass the cost to shippers and finally to end users (King,2019). Supply capacity and vessel availability will be also affected (Leonard,2019), creating a new challenge for the industry.

Further uncertainties arise from digitalization and automation. Artificial Intelligence, drones and blockchain applications are promising better and more efficient controls, faster documentation procedures that save time and money. Nevertheless, they there is still precariousness concerning safety and security/cybersecurity and appropriate frameworks of safeguards, institutional and regulatory, are required (Manaadiar, 2019). Another issue is that technology in shipping raises threats for job positions of seafarers(Frey and Osborne, 2017),particularly from the moment that there is discussion for maritime autonomous surface ships, that , regardless the traditionally conservative nature of maritime industry , are already a reality since some players claim to have already autonomous ships in operation. (Paton 2018).

In connection with the above discussion regarding new technologies and innovation, a literature review shows that much ink has been devoted to determine if these innovations formulate a value added factor (Hayashi, 2013). The fail or success depends in internal factors of the industry like leadership, implementation competencies and company culture (Tellis, 2013; Adner 2012) together with external like the innovation environment or ecosystem (Adner, 2012). Furthermore, as IMO 2019 review indicates, not only innovation adds value in shipping but also should determine the value of shipping together with cargo volume.

Concluding the brief presentation of the industry, highlighting the contribution to the world economy, we briefly present the importance of Baltic Exchange Dry

Index (BDI) that is released by the Baltic Exchange (Baltic Exchange, 2012) every weekday at 13:00 in order to assist the public in monitoring the cost of dry bulk shipping globally.



GRAPH 5: The Baltic Dry Index during 1999-2019

Source: Bloomberg

BDI growth rate predicts the growth in global economic activity, establishing further BDI's role in revealing a link between the real and financial sectors. (Bakshi,Panayotov & Skoulakis,2010).Thus, the BDI is higlighted as a leading economic indicator. Nevertheless, there are opposite opinions regarding the predictive power of the index (Fickling, 2019; Saul, 2015).

Shipping is a major global, highly volatile and fully regulated industry. As such, it presents a special case of interest in the context of corporate governance compliance that goes hand to hand with transparency and socially responsible companies. How do the well-known indicators of good corporate governance relate to firm profitability, which is the main motive of operation for the internationally listed shipping companies? This is what we have set out to investigate.

Chapter 5

Characteristics and Compliance

Costamare Inc.

As Costamare Inc declares (Costamare, 2019) the company is committed to a culture of integrity in its business and operations in order to protect the corporate reputation and to fulfill company's responsibility towards investors and other stakeholders. The company also embraces that high standards of corporate governance are an integral part of this goal. The company dictates compliance with high ethical standards when conducting company's activities.

According to Corporate Governance Guidelines of Costamare Inc. regarding Director Qualification Standards, at least two directors of the company will be independent under the rules of NYSE and all members of the Audit Committee will be independent directors. There is the restriction that one member of the Audit Committee will serve on maximum three audit committees of other publicly traded companies except if the BoD decides that such case negatively affects the ability of the director to serve on the Company's Audit Committee.

Specifying Director's responsibilities, the company declaration sets that Directors should exercise their business judgment in what they reasonably believe to be in the best interests of the Company and its stockholders and dedicate the necessary effort to accomplish their responsibilities on a deliberate and fully informed basis. They also should attend all regularly scheduled meetings in person or by telephone, absent mitigating circumstances, review in advance the information furnished to them prior to meetings and maintain confidentiality of all Board discussions and materials.

The guidelines describe that the Board of Directors will receive appropriate updates and information from management. Regarding executive sessions, the non-management directors of the Company will meet without management at regularly scheduled executive sessions. “Non-management” directors include those directors who are not executive officers, and include such directors who are not independent by virtue of a material relationship, former status or family membership, or for any other reason. If the Company has one or more non-management directors who are not independent, the Company will also hold at least once a year an executive session including only independent directors.

The full Board will set the Director’s Compensation recommended by the Corporate Governance, Nominating and Compensation Committee. At the time of considering compensation of directors, the Board should be informed of all substantial charitable contributions made by the Company to an organization with which a director is affiliated, as well as any direct or indirect compensation made to a director.

It is company’s responsibility the orientation of Directors towards company’s business and policies, together with their continuing education.

Board, selects, monitors and reviews CEO’s performance and arranges the policy regarding succession.

The Board is conducting self-examination at least annually.

After presenting the company’s corporate governance guidelines, a review of the Statement of Significant Differences between the Practices of COSTAMARE INC. and the New York Stock Exchange, INC. Corporate Governance Standards is following.

In this statement (Costamare annual report, 2019) , Costamare Inc. states that the company is not required to comply with certain of the corporate governance practices followed by U.S. and noncontrolled companies under the NYSE listing standards , however, pursuant to Section 303.A.11 of the NYSE Listed Company

Manual, company is required to disclose any significant ways in which its corporate governance practices differ from those followed by a domestic company under NYSE standards. Forth below the stated differences:

- The Board consists of a majority of non-independent directors when NYSE requires that listed companies have a majority of independent directors.
- Nominating and compensation committee is not composed wholly of independent directors when NYSE requires that nominating/corporate governance committee and compensation committee should be composed of independent directors.
- The Audit committee is composed of two members when NYSE requires that a listed U.S. company's audit committee have a minimum of three members.

Danaos Corporation

According to Danaos Corporation , a corporation domesticated in the Republic of The Marshall Islands, the established practices in the area of corporate governance that he company applies are in line with the spirit of the New York Stock Exchange standards and provide adequate protection to company's stockholders. As in the Danaos 2018 annual report is declared , pursuant to Section 303.A.11 of the New York Stock Exchange Listed Company Manual and the requirements of Form 20-F, that requires from foreign listed companies to state any significant differences between corporate governance practices and the practices required by the New York Stock Exchange, 2018, a non-independent director, who is a member of the management and also serves on the board of directors, serves on the nominating and corporate governance committee of the board of directors and until September 2018 served on the compensation committee of the board of directors, as permitted under Marshall Islands law. New York Stock Exchange requires that a listed U.S. company have a nominating/corporate governance committee and a compensation committee, each composed of independent directors.

Except from the above regarding compliance with NYSE regulations, Danaos Corporation Board of Directors, as it is declared in the ethics and compliance reporting, recognizes the on-going and energetic debate about corporate governance and intends to periodically review the guidelines and other aspects of the Company's governance that has adopted.

More specifically, the guidelines indicate the role of BoD and management that is the fulfillment of the company's mission of long term value and protection of owners' and other stakeholders' interests , BoD oversights DEO's conduct of business in a way that responsibly addressing the concerns of employees, customers, suppliers, government officials, and the public at large. Additionally the Board of Directors:

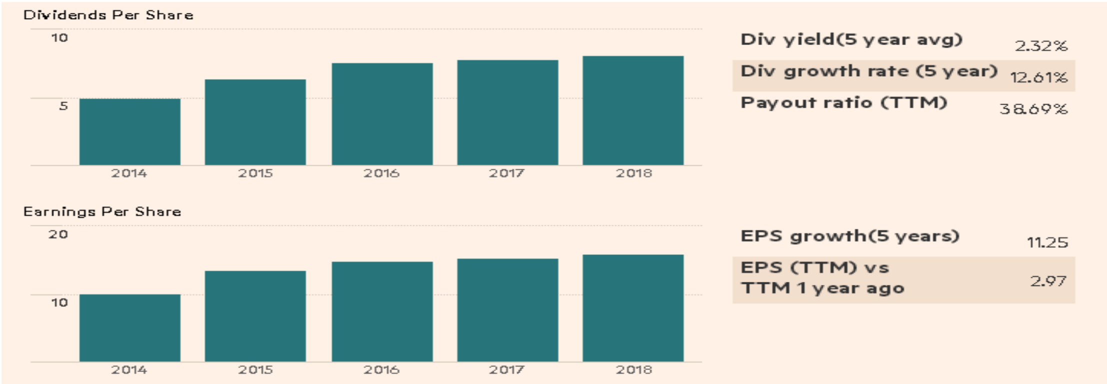
- holds at least four scheduled meetings a year,
- reviews, approves and monitors strategies and actions,
- ensures integrity and compliance with laws ,codes and regulations,
- mitigates risks,
- selects, evaluates and compensates executive officers,
- provides counseling in selection, evaluation and compensation of senior management
- Regarding the director's qualifications, the requirements, include high personal and professional ethics, integrity and values, diverse experience related to business activities, loyalty. The role of the director does not have arbitrary limits.
- The independence directors are considered as valuable contributors although under the New York Stock Exchange ("NYSE") listing standards the majority will be independent. Furthermore, the guidelines determine the independent director qualifications and the objective factors that demonstrate the independency. The members of the Audit committee should be independent and should not accept any compensatory fee or be an affiliated person of the company or any subsidiary. The guidelines set

the procedures to determine the director independence and the effect of non-determination.

- Regarding the Size of the Board, the Bylaws of the corporation, give the Board authority to specify the number of directors.
- Three committees are established: Audit Committee, Compensation Committee, Nominating and Corporate Governance Committee
- The independent directors will have at least one scheduled annual meeting and may meet without management present at such other times as determined by the Presiding Director.
- The directors will be requested to provide their assessments of the effectiveness of the Board and the committees on which they serve annually.
- The guidelines' framework also provides information regarding the annually setting of Board agenda proposed by the CEO, the ethics policy, the Reporting of Concerns, the compensation of the Board ,CEO's succession plan , directors' orientation and contacts between independent members and executive officers and independents with board and committees and finally.

Novo Nordisk

Novo Nordisk A/S is a public limited company incorporated in Denmark and admitted to trading on Nasdaq Copenhagen. As the company has ADRs listed on the New York Stock Exchange (the "NYSE") is therefore required to comply with U.S. securities laws and regulations, including the Sarbanes-Oxley Act and the NYSE Corporate Governance Standards (the "NYSE Standards") applicable to listed companies as described in the NYSE Listed Company Manual's section 303A. As a foreign private issuer, Novo Nordisk A/S is permitted to follow the corporate governance practice of its home country in lieu of certain provisions of the NYSE Standards.



Graph 6 : Novo Nordisk growth rates in Danish Krones

Source: Financial Times

Novo Nordisk has an integrated framework consisting of the Articles of Association, Rules of Procedure of the Board of Directors and Competence Profile of the Board of Directors. Novo Nordisk A/S complies with the requirements of the SEC and NYSE except that Novo Nordisk as a "controlled company" (a listed company of which more than 50% of the voting power for the election of directors is held by an individual, a group or another company) pursuant to section 303A.00 of the NYSE Listed Company Manual is not obliged to comply with sections 303A.01 (majority independent directors), 303A.04 (nominating/corporate governance committee) and 303A.05 (compensation committee) of the NYSE Listed Company Manual. Moreover, Novo Nordisk A/S as a foreign private issuer is permitted to follow home country practice in lieu of sections 303A.02 (independence tests), 303A.03 (executive sessions), 303A.07 (audit committee), 303A.08 (shareholder approval of equity compensation plans), 303A.09 (corporate governance guidelines), 303A.10 (code of business conduct and ethics) and 303A.12 (a) (certification requirements).

Revised Danish Corporate Governance Recommendations were introduced in November 2017. Novo Nordisk adheres to all of the Danish Corporate Governance Recommendations designated by Nasdaq Copenhagen except the following four:

- Independence of board committees: the majority of the members of the Nomination Committee and the Remuneration Committee are not independent.

- Tasks of the Nomination Committee: responsibility for succession management and recommending candidates for the executive management resides with the Chairmanship and not with the Nomination Committee.
- Tasks of the Remuneration Committee: responsibility for the remuneration policy applicable to employees in general resides with Executive Management and not with the Remuneration Committee.
- Termination payments: two executives' employment contracts entered into before 2008 allow for severance payments of more than 24 months' fixed base salary plus pension contribution, and thus the total value of the remuneration relating to the notice period and of the severance payment exceeds two years of remuneration.

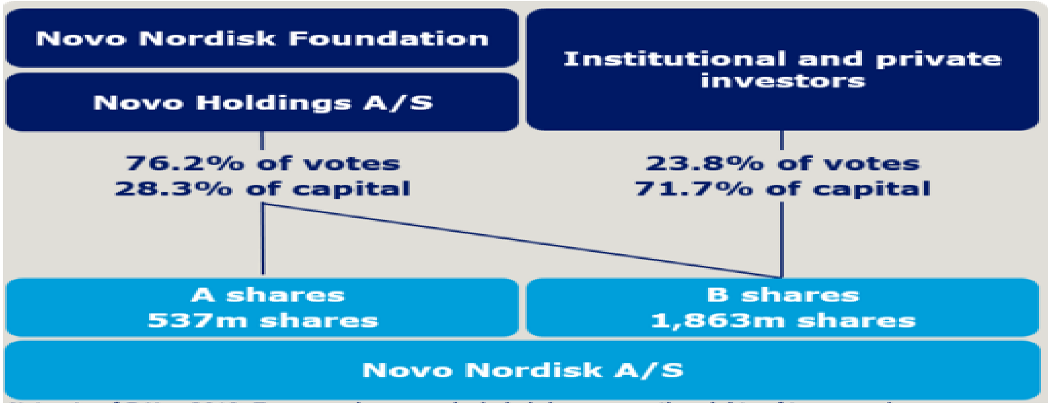
As a foreign listed private issuer, Novo Nordisk is in compliance with the corporate governance standards of the New York Stock Exchange, where Novo Nordisk's ADRs are listed. Below a summary is provided of the significant ways in which Novo Nordisk's corporate governance practices differ from the corporate governance standards of the NYSE applicable to domestic US-listed companies.

- The majority of the members of the Nomination Committee and the Remuneration Committee are not independent. Novo Nordisk is a "controlled" company since it has more than 50% of the voting power for the election of directors held by an individual, a group or another company (graph 7), therefore NYSE requirement does not apply, as it is for US companies. (Standard fulfilled)
- The statutory Annual Report provides detailed and individual information regarding the board members, but it does not explicitly identify which board members the Board of Directors consider independent under NYSE's Corporate Governance Listing Standards.(Partially fulfills standard)
- The Board has established a Remuneration Committee and the Remuneration Committee consists of two non-independent members,

including the chair, and two independent members pursuant to the Danish Corporate Governance Recommendations. One member is an employee representative. Thus, since pursuant to NYSE listed companies must have a compensation committee composed entirely of independent directors, the standard is partially fulfilled.

- Four employees have in accordance with the requirements in the Danish Companies Act been elected as board members by the Danish employees of the company. One director serves as chief executive officer of the majority shareholder, Novo Holdings A/S. The above characteristics are not entirely fulfill the NYSE Standards under which listed companies must have at least a majority of independent directors and no director qualifies as "independent" unless the Board of Directors affirmatively determines that the director has no material relationship with the listed company (either directly or as a partner, shareholder or officer of an organization that has a relationship with the Company).
- The Board has established a Nomination Committee and the Nomination Committee consists of two members who are independent, including the chair, as defined in the Danish Corporate Governance Recommendations and two members who are non-independent. One member is an employee representative. NYSE standard is sets that listed companies must have a nominating/corporate governance committee composed entirely of independent directors.(standard partially fulfilled).
- The Board has established a Remuneration Committee and the Remuneration Committee consists of two non-independent members, including the chair, and two independent members pursuant to the Danish Corporate Governance Recommendations. One member is an employee representative. Furthermore, the Chairmanship annually evaluates the performance and target setting for Executive Management. NYSE standards indicate that listed companies must have a compensation committee composed entirely of independent directors.(standard partially fulfilled).

- The Audit Committee has four members. NYSE requires minimum three members. Regarding independency, three Audit Committee members satisfy the independence requirements. One Audit Committee member is an employee representative relying on the exemption from the independence requirements. Novo Nordisk does not believe the reliance on such exemption will materially affect the ability of the Audit Committee to act independently. (partially fulfilled standard)
- the Audit Committee's oversight responsibility only includes oversight of compliance with legal and regulatory requirements relating to business ethics compliance and does not include the integrity of the listed company's financial statements, the independent auditor's qualifications and independence, and the performance of the listed company's internal audit function and independent auditors.(partially fulfilled standard)
- the practice of voting on equity-compensation plans is not contemplated and accordingly, equity compensation plans are only subject to shareholder approval if it results in the issuance of new shares when NYSE require to vote on all equity-compensation plans and material revisions thereto.(partially fulfilled standard)
- There may be topics regarding code of business conduct and ethics for directors, officers and employees, which are not covered in the extent NYSE requests .(partially fulfilled standard)
- Each listed company CEO must certify to the NYSE each year that he or she is not aware of any violation by the listed company of NYSE corporate governance listing standards, qualifying the certification to the extent necessary. Novo Nordisk has opted to follow Danish law and regulations, which do not contemplate such certifications.(partially fulfilled standard)



Graph 7 : Share and ownership structure

Source : Novo Nordisk company web page

Chapter6

Methodology,Findings,

Discussion

Based on the literature review and objectives of the study demonstrated above, the hypotheses of the study are:

H1: There is no significant impact of Percentage of independent members of the BoD on profitability of shipping firms.
H2: There is no significant impact of board size on profitability of shipping firms.
H3: There is no significant impact of CEO duality on profitability of shipping firms.
H4: There is no significant impact of majority shareholding on profitability of shipping firms.

Data collection and Methodology

This study is mainly conducted to investigate the impact of corporate governance on profitability in listed shipping companies in the New York Stock Exchange. From the 43 companies listed the37 have been selected covering the 6 year period i.e. from 2013 to 2018 for which it was possible to extract from their annual reports individually all required corporate goverance data.
Data relating to profitability have been taken out from Bloomberg database. A panel data for six years is used because panel data are more informative, provide

more variability, less collinearity among the variables, more degrees of freedom and more efficiency.

Variables description

variable	notation	measurement
Explanatory variables		
Percentage of independent members of the BoD	BIND	Members of the board who have no material interests in a company
Board size	BSIZE	Total number of directors in the board
CEO duality	CEOD	CEO also holds the position of the chairman of the board
Percentage of dominant shareholding	OWN	majority shareholders who hold a dominant part of the share capital of the company
Dependent variable		
Profitability, net income over revenue	PROF	Return on revenue, net profit margin
Control variables		
Leverage, debt over total assets	LEV	Total amount of debt relative to assets
Logarithm of total assets	LSIZE	The natural logarithm of total assets at end of each year

CEOD is proxied by a dummy variable coded '1' in case of duality and '0' in case of non-duality.(Lam and Lee 2008; Ramdani and Witteloostuijn, 2010).

LEV ,that is the total amount of debt relative to assets and LSIZE , that is the natural logarithm of total assets at the end of each year are included to serve as control variables (in logarithmic form) in order to limit heteroskedasticity effects. Researchers (Dechow et al., 1995, McNichols, 2002) employ these controls among others in the regression analysis.

Table 1: Descriptive statistics

Sample: 2013 2018

	BIND	BSIZE	CEOD	LEV	LSIZE	OWN	PROF
Mean	0.554997	7.084906	0.448113	0.574372	14.19617	0.329307	0.339000
Median	0.571429	7.000000	0.000000	0.568649	14.34584	0.308159	0.041713
Maximum	1.000000	12.00000	1.000000	2.366918	16.38516	0.971273	109.1685
Minimum	0.000000	3.000000	0.000000	0.045061	8.091933	0.000000	-4.962998
Std. Dev.	0.191939	1.652905	0.498478	0.194989	1.165561	0.235486	7.553044

The mean value of independent members percentage is 0,55 and indicates that at least half of the board members are externals in the majority of companies. The board size varies from 3 up to 12 members, with an average of 7. In almost half of the companies, the CEO serves as Chairman. The leverage of the industry is at 57%, a good level to attract investors since has not been aggressive in financing its growth with debt. The size of the companies range from 8 to 16,3 with mean value 14,19 . Ownership concentration mean is 0,32 and indicates that in most of the companies are not dominated by majority shareholders and this is to be expected given that they are all listed in the New York Stock Exchange .

Panel Unit root tests

In order to test the stationary of variables used in the study, Im Pesaran and Shin, Fisher ADF and Fisher PP tests are used:

Table 2: Panel Unit root tests

BIND(P-VALUE)	
Im, Pesaran and Shin W-stat	0.9196
ADF - Fisher Chi-square	0.9643
PP - Fisher Chi-square	0.9754
BSIZE(P-VALUE)	
Im, Pesaran and Shin W-stat	0.5247
ADF - Fisher Chi-square	0.4219
PP - Fisher Chi-square	0.1417
CEOD(P-VALUE)	
Im, Pesaran and Shin W-stat	0.7849
ADF - Fisher Chi-square	0.9093
PP - Fisher Chi-square	0.7735
LEV(P-VALUE)	
Im, Pesaran and Shin W-stat	0.0002
ADF - Fisher Chi-square	0.0001
PP - Fisher Chi-square	0.0000
LSIZE(P-VALUE)	
Im, Pesaran and Shin W-stat	0.0000
ADF - Fisher Chi-square	0.0000
PP - Fisher Chi-square	0.0000
OWN1(P-VALUE)	
Im, Pesaran and Shin W-stat	0.6320
ADF - Fisher Chi-square	0.2114
PP - Fisher Chi-square	0.1213
PROF(P-VALUE)	
Im, Pesaran and Shin W-stat	0.2220
ADF - Fisher Chi-square	0.1159
PP - Fisher Chi-square	0.0020

The tests indicate that the unit root null hypothesis cannot be rejected for LEV and LSIZE so we transform them to the first difference; all other variables are included at levels.

We have chosen a fixed effects model over random effects for two reasons. First, fixed effects panel estimation allows us to reduce omitted variable bias arising from the differences among companies. The estimation introduces group dummies, which control for the average differences between companies, in order to be left with within company variation through time. If there are omitted variables, and these variables are correlated with the variables in the model, then fixed effects models may provide a means of controlling for omitted variable bias. The core difference between the random and fixed effects models is not whether the effects are random or fixed parameters, but whether the effects are correlated or uncorrelated with the repressors. Second, the Hausman test also leads us towards the use of the fixed effects model

Table 3 Hausman Test

Dependent variable	Chi-Sq Statistic	P-value	Regression Model
	12.518	0.0091	Random Effect

We estimate the equation below

$PROF_{it}=b_0+b_1*BIND_{it}+b_2*BSIZE_{it}+b_3*CEODI_{it}+b_4*LEV_{it}+b_5*LSIZE_{it}+b_6*OWN_{it}+e_{it}$

Where, "i" is a subscript for each firm and "t" for each year, α = intercept, e_{it} = error term

The presence of several corporate governance variables in our equation raises the question whether they are endogenous or predetermined. We first adopt Fixed Effects 2SLS as the appropriate method of estimation but serial correlation in the error process and the right-hand-side variables was thought to induce bias in the standard error estimates .Even though we got the expected signs in the coefficients of our explanatory variables, we further explored issues of heterogeneity with respect to the main corporate governance and financial variables of the public maritime shipping companies in our data set. Thus, we resorted to GMM (HAC), which has been shown to be asymptotically identical to 3SLS (Ahn et al., 1999). HAC standard errors are considered to be robust to both heteroscedasticity and autocorrelation. The rationale behind the GMM method is given below.

Assume that we have $Y_{it} = X_{it}\beta + u_{it}$

and $u_{it} = \alpha_\iota + \varepsilon_{it}$where i=1, ...37 and t=1, ...6

Additionally, assume that some of the explanatory variables may be endogenous and correlated with the error term. If we can that find $Z1, \ldots Zn$ are correlated with the$X$'s but not with the error term, then they can be used as instruments. We can use Z to solve the orthogonality conditions $E(Z_i' u_i) = 0$ in terms of β (Wooldridge, 2001).

In our case, we resolve the problem of choosing a proper instrument, by using lagged values of corporate governance variables included in our model and suspected for endogeneity but also using lagged values of the financial variables LEV and LSIZE.

Regression analysis

Table 4

Empirical Results: Dependent Variable PROF

Independent Variables	**OLS Regression**
C	15.0834***
	(5.5252)
D(LSIZE)	-2.6442
	(1.5542)
D(LEV)	-29.9503***
	(6.2239)
BSIZE	-0.7586*
	(0.4099)
BIND	-0.6823
	(3.0228)
OWN	-11.1006***
	(3.3629)
CEOD	-3.7235
	(2.0702)
Adj.R-squared	0.75
Breusch-Pagan LM (p-value)	0.00

*__Note:__ Figures in ( ) are standard errors. *, **, and ***, indicate significance at the 10%, 5% and 1% levels, respectively*

Next we proceed with two-stage Least Squares (2SLS) regression analysis to take into account endogeneity given that corporate governance variables have often be debated in the literature to cause endogeneity (Tsionas et.al,2012)

Table 5

Empirical Results: Dependent Variable PROF

Independent Variables	***2SLS* Regression**
C	6.8526*
	(3.9472)
D(LSIZE)	-2.5670
	(1.9271)
D(LEV)	-19.5900***
	(6.7383)
BSIZE	-0.3804
	(0.2628)
BIND	0.2333
	(1.3137)
OWN	-5.1754*
	(3.0042)
CEOD	-1.0764*
	(0.5761)
Adj.R-squared 0.110668	
(p-value) 0.000011	

Note: *Figures in ( ) are standard errors. *, **, and ***, indicate significance at the 10%, 5% and 1% levels, respectively*

Generalized Method of Moments (GMM) estimation

Table 6

Empirical Results: Dependent Variable PROF

Independent Variables	GMM
C	10.5297***
	(3.5987)
D(LSIZE)	-3.6260***
	(1.2125)
D(LEV)	-25.4537***
	(5.6056)
BSIZE	-0.5461**
	(0.2246)
BIND	0.1266
	(1.5134)
OWN	-8.2281***
	(2.7098)
CEOD	-1.9177***
	(0.5998)
(p-value)	
0.324204	

Note: *Figures in ( ) are standard errors. *, **, and ***, indicate significance at the 10%, 5% and 1% levels, respectively*

Results

Regression models have been utilized as per the outcomes yielded. We focus to interpret the results of the GMM estimation, which have been substantiated and determined to be robust by the j-statistic and the overall as well as the individual significance of our model and the coefficients of it. Therefore, we proceed by relating our results to the hypotheses tested.

H1: There is no significant impact of Percentage of independent members of the BoD on profitability of shipping firms.

The percentage of independent members of the board is not found to be significantly associated with profitability (0,1266). This finding supports our hypothesis but do not support the prediction of a significant and positive association found in empirical studies (Weisbach, 1988; Pearce & Zahra, 1992; Daily & Dalton, 1993; Rosenstein& Wyatt, 1994; MacAvoy & Millstein, 1999),which have generally indicated the benefits of introducing more independent non-executive directors on boards due to the fact that they provide more efficient monitoring and advisory for firm shareholders. Insufficient evidence exists to support the hypothesis. The result is also not consistent with the findings of Baysinger and Butler (1985) , who show that when firms appoint outside directors the market rewards the firms.

Moreover, these findings are not consistent with Syriopoulos and Tsatsaronis (2011) who have found a negative relation between board independence and shipping firm financial performance.

On the other hand, the findings of Agrawal and Knoeber (1996) suggested that larger numbers of independent directors may not be related to performance since independent members may be appointed for political reasons only or are too busy to efficiently participate in decision making and management monitoring(Fich and Shivdasani, 2006).

H2: There is no significant impact of board size on profitability of shipping firms.

The size of the board is also not in correlation with firm's performance in terms of profitability (-0,5461),so our hypothesis is supported. The findings are in line with Topak (2011) and contradicts Yermack's (1996) finds that there a statistically significant negative relationship between board size and firm performance. It also contradicts opposite findings by Tanna, Pasiouras and Nnadi(2008), Dalton, Daily, Johnson and Ellstrand (1999), Kyereboah-Coleman and Biepke (2006), Larmou and Vafeas (2009)), which support positive relationship.

H3: There is no significant impact of CEO duality on profitability of shipping firms.

The hypothesis is not supported by our data analysis. The result of the analysis regarding Ceo Duality , when the Chief Executive Officer of a company serves also as Chairman of the board of directors, is that company profitability is affected negatively (-1,9177). The result is in accordance with agency theory, which suggests that CEO duality strengthens the CEO's ability to increase their self-utility, and may impair firm performance (Iyengar & Zampelli, 2009) as Cornett et al. (2008), and Daily and Dalton (1994) also found.

H4: There is no significant impact of majority shareholding on profitability of shipping firms.

The hypothesis that there is no influence of dominant shareholding on profitability is not supported. Contradictory results on the subject were found (Bebchuk and Weisbach ,2010;Demsetz and Lehn ,1985;Anderson and Reeb ,2003). Specifically, the argument that ownership dominance is positively and strongly associated with better firm performance that is supported by Tsionas , Merikas and Merika (2012) through their survey of a sample near 60% of total listed shipping firms, is strongly contradicted by our analysis(-8,2281).

More generally, the impact of majority shareholding on firm performance has also been verified by Klein, Shapiro, and Young (2005) and Himmelberg, Hubbard, and Palia (1999).Others rejected , like Gorton and Schmid (1999) who studied the Austrian banking sector, Shleifer and Vishny (1997), Han and Suk (1998) and Xu and Wang (1999). Bebchuk and Weisbach (2010) conclude, “the underlying reasons, however, for this relationship between ownership structure and firm performance are not clear”.

Chapter 7

Conclusion

In this study, we explore Profitability in public maritime shipping companies, as a function of financials and corporate governance variables. Regarding the determinants of Profitability, the empirical results of our study suggest that it is negatively related to financial leverage, to the size of firms but it is also negatively related to concentrated ownership, board size and ceo duality. Moreover, although not conclusive, our study provides an indication that profitability is insignificantly related to board independence.

These empirical findings yield important implications for maritime shipping investors and capital market regulators, who can utilize our results in order to enhance corporate-governance practices in the direction of complying with best practices and transparent operation. Specifically, if corporate leaders and regulators want to shield listed companies against low profitability, which is not desirable by investors as well as stakeholders of the industry, should ensure widespread ownership, smaller board of directors and independence between the ceo and the board chairman.

While this study has identified statistically significant determinants of profitability, more empirical research is needed to shed light on the organizational structures that shape the structure of public maritime companies. In this direction, future studies could explore the causality between profitability and shipping company characteristics by employing the methodology of moderator and mediator variables. Moreover, our quantitative approach can be complemented with qualitative research designs, such as in-depth interviews with directors of public maritime shipping companies.

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Appendices

Appendix: Shipping Firms

1. Capital Product Partners L.P.
2. Safe bulkers, inc
3. Diana shipping inc
4. Navios Maritime Partners L.P.
5. Golden Ocean Group Ltd
6. Star Bulk Carriers Corp.
7. Tsakos energy navigation ltd
8. Ardmore Shipping Corp
9. StealthGas Inc.
10. Costamare Inc.
11. Dynagas LNG Partners LP
12. GasLog Ltd.
13. Frontline ltp
14. Hoegh LNG Partners LP
15. Golar LNG Partners LP
16. KNOT Offshore Partners LP
17. Teekay LNG Partners L.P.
18. Teekay Offshore Partners L.P.
19. Danaos Corp
20. Diana containerships inc
21. Global Ship Lease, Inc.
22. Matson, Inc.
23. Seaspan corp
24. Nordic american tankers ltd
25. Euroseas ltd
26. Dryships inc
27. Navios maritime acquisition
28. Seacor holdings inc
29. Ship finance intl ltd
30. Teekay corp
31. Pangaea logistics
32. Seanergy maritime holdings
33. Golar lng ltd
34. Navigation holdings ltd
35. Hornbeck offshore services
36. Top ships inc
37. Navios Maritim