

Dimitrios P. Papoulakos
MSc Student

MSc Thesis

Shipping Finance

Debt or Equity?

A Comparative Analysis Between Syndicate Loan
and Initial Public Offer Based On The IRR Model.

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Master's Thesis

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By

Dimitrios P. Papoulakos, BSc

Piraeus, December 2006

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Supervised by

Professor Andreas Merikas

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University of Piraeus

Department of Maritime Studies

Supervisor:

Prof. Andreas Merikas

Other committee members:

Prof. Alexandros Goulielmos
Prof. Eleftherios Thalassinos

University of Piraeus – Greece

Department of Maritime Studies

MSc in Maritime Studies

Internet: <http://www.unipi.gr>

Phone: 00 30 210 4142074 - 75

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Piraeus, December 2006

Table of Contents

i	Preface
iii	Acknowledgements
iv	Synopsis
vi	List of Figures
vii	List of Indexes
viii	List of Charts

Theoretical Parts

Part One: The Green Light

2	Chapter 1: Market Inspection
4	Chapter 2: Market Oddities
10	Chapter 3: The Business Cycle Is Always Alive...
15	Chapter 4: The Four Seasons Game
17	4.1 The Boom And The Beast
21	4.2 Killer's Instinct
23	Conclusion
24	Notes & References

Part Two: It Takes Two To Tango

27	Chapter 5: A Small Step For The Shipowner, A Big Step For The Marke
44	Conclusion
45	Notes & References

Empirical Part

Part Three: What You Are Is What You Get

47	Chapter 6: To Syndicate or not to Syndicate?
50	6.1 Countdown
55	6.2 Terminology
62	Chapter 7: Identify Prime Opportunities
76	7.1 Shipping IPOmania
79	Conclusion
80	Notes & References

Case Study & Conclusions

Part Four: Capital Structure Puzzle

83	Chapter 8: The Corporate Finance Arena
88	8.1 The Final Battle
103	Conclusion
105	Notes & References
106	Resources
113	Appendix
128	Greek Summary
131	Author Note

Shipping Finance

Debt or Equity?

A Comparative Analysis Between Syndicate Loan and Initial Public Offer Based On The IRR Model.

Preface

If there is a country in the world that comes to mind when shipping is discussed, that country is Greece, a place where owners have a long history in the business and a glamorous reputation of gaining through market peaks and troughs. It always constitutes a very interesting subject among market participants and historians why “small” Greece and its people tend to be committed to the sea and most of them successful operators in the shipping industry. Many people believe that Greeks have shipowning circulate “in their blood”. One shipowner, in mentioning the significant results of the Greek maritime industry by 2005, stated that Greeks can be characterized as having a “shipping D.N.A”. Perhaps it was this cultural or biological explanation, if you prefer, that drove me to deal with this sector two years ago as a Masters Degree student of the Department of Maritime Studies. Until then I had no contact with this interesting and traditional sector of the Greek economy. The only contact I did have was with the old captain and sailor stories of the travels and the sea adventures that they faced in their trips all over the world, and from the Greek drama movies of the 1960s and 1970s.

It is true that my first contact with the shipping industry was during a period described as “hot” by a number of market participants. Suddenly I realized that I was in the top of a shipping cycle that I had never known before. The period between 2004 and 2006 was remarkable for the international and the Greek shipping industry. It was a period of records. Freight markets due to China expansion reached unprecedented levels both in the tanker and bulk sector. It was also marked by an all time low in laid-up tonnage and a massive world fleet renewal. Of course, I was not so lucky to have my own fleet during that period but I was lucky because I found a very interesting sector of the shipping industry, which prospered again during this period and roused my interest. This sector was shipping finance.

We can find a number of different and alternative methods of shipping finance. Each one of these methods has its own characteristics and a number of them are less or more important for the shipping industry’s investment projects. In this Thesis, I tried to give an answer to the basic question of financing a vessel, or vessels acquisition, with debt or equity capital.

Preface

For this reason I started my analysis describing two different methods of finance: Syndicate lending as debt instrument and Initial Public Offer as equity instrument. In this analysis, in a case study a shipping company is interested in financing the acquisition of four Capesize vessels and thus faces this capital structure “dilemma”. The shipping company’s finance decision is based mainly on the purpose of its investment policy and on the investment barriers that it may face. To make this analysis more interesting, three different investment proposals that describe when the shipping company will use debt financing and equity financing will be examined, as well as a number of different scenarios based on the Internal Rate of Return (IRR) model of examination and analysis.

Keywords: four seasons game, syndicated loan, initial public offer, internal rate of return, cost of capital.

Piraeus, December 2006.

D. P. Papoulakos

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In the end, I would like to thank and express my gratitude to my family for showing such interest and understanding throughout all this effort which began on 17th May 2006.

Synopsis of Contents

Theoretical Parts

Part One: The Green Light

Chapter 1: Market inspection

Chapter 2: Market Oddities

The first part begins with an overview of the shipping industry's basic characteristics. Capital intensive industry, freight and vessels market volatility, and market imperfections are the three shipping "oddities" examined in this first chapter.

Chapter 3: Business cycle is always alive...

Chapter 4: The Four Seasons Game

These chapters are an overview of the most important business cycle theories. These theories include cycle theories that have tried to explain the driving forces behind business cycles in the economy and theories that have tried to explain and prove a cycle's duration. This chapter ends with some thoughts about business cycles in the shipping industry and divides a shipping cycle into four seasons. What happens within these seasons? When does the shipowner make the decision to finance an investment project? These are some of the questions that will be examined and hopefully answered in the second chapter of this part using examples from the "hot" shipping market of 2004.

Part Two: It Takes Two To Tango

Chapter 5: One small step for shipowner, one giant step for market

Shipping finance has always constituted one of the most interesting sectors of the shipping industry. Where there is a ship there must also be a ship finance. This chapter examines the shipowner's basic steps before making the decision to finance an investment project and presents some of the most important and modern finance methods for the shipping industry and its basic characteristics.

Empirical Part

Part Three: What You Are Is What You Get

Chapter 6: To Syndicate or not to Syndicate?

In this part we enter the main subject of this Thesis. In the first chapter of this part we examine the first finance method of our analysis. Syndicate Loan constitutes a very interesting finance method for shipping companies. This chapter makes mention of this method's importance in shipping finance and offers an interesting analysis of the main terms and conditions of a syndicate loan facility agreement.

Chapter 7: Identify Prime Opportunities

This is the second chapter of this study that examines the second financial method of analysis. Initial Public Offer constitutes a modern and an up-and-coming method of finance for shipping companies. This chapter describes the basic steps of the Initial Public Offer process and makes a small reference to the IPOmania years of 2004 and 2005 in the shipping industry.

Case Study & Conclusions

Part Four: The Capital Structure Puzzle

Chapter 8: The corporate finance arena

It is time to answer this Thesis' basic question: Debt or Equity? This is the last part of our analysis. In this chapter we present the advantages and disadvantages of Syndicate lending and the Initial Public Offer. But do these examinations provide enough evidence in answering the basic question of this Thesis? For our analysis we use a case study shipping company, which is interested in investing in the acquisition of four Capesize vessels. The three different investment proposals that this chapter presents will provide the answer...

List of Figures

2	1-1	Market Oddities
4	2-1	Finance Decision Chain
8	2-2	Hypothetical Shipping Market Structure
15	4-1	The Four Seasons Game
28	5-1	The First Steps
29	5-2	Alternatives Sources Of Shipping Finance
33	5-3	Type Of Bonds
37	5-4	KG/KS Structure
38	5-5	Risk And Return Characteristics
40	5-6	Types Of Leasing
40	5-7	Ship Lease Transaction
42	5-8	F.S.L Financial Base
42	5-9	Sale And Lease Back Transaction
62	7-1	The Basic Steps Of The IPO Process
64	7-2	Company Structure
64	7-3	Four Major Choices
70	7-4	IPOs Basic Expenses
70	7-5	Financial Data
75	7-6	Shares Pricing Factors
87	8-1	The S.L-IPOs Basic Costs
91	8-2	Time Charter Period
93	8-3	The "Diamond" Analysis
94	8-4	Loan Repayment Table
95	8-5	Time Charter Rate Forecast (per day)
99	8-6	Vessels Appraisal at year 10: 2006

List of Indexes

5	2-1	Newbuilding Prices: 03/2006
5	2-2	Second-hand Prices: 03/2006
9	2-3	Shipping Market Barriers
12	3-1	Kondratieff Cycles
14	3-2	Dry Cargo Freight Cycles
18	4-1	Tanker Market Summary From 3/2004 To 3/2005
20	4-2	Short Term Supply/Demand 2005/6
20	4-3	Freight Rates Forecast: 2006 and 2007
21	4-4	Return On Investment In Shipping
22	4-5	Forecast?
32	5-1	Top Ten Banks And There Portfolio - \$ bn.: 2005
33	5-2	Credit Rating Categories
36	5-3	High-Yield Shipping Bonds: 2006
43	5-4	Top Tankers Sale And Lease Back Transaction: 2006
49	6-1	Leader Banks: 2004-2005
50	6-2	Syndicated Loan Basic Steps
52	6-3	The Inquisition Step
57	6-4	Variables Affecting Spreads
58	6-5	Type Of Fees
61	6-6	Type Of Covenants
67	7-1	Biggest Underwriters: 2006
75	7-2	Stock Exchanges
78	7-3	Greek Shipping Companies In International Stock Markets: 2006
89	8-1	Investment Projects Rating
91	8-2	Case Study Basic Principles
92	8-3	Vessels Operating Expenses (in US Dollars)
95	8-4	Estimation Of Vessels Cost: After 10 years
96	8-5	(A) Investment Proposal: Scenario 1
97	8-6	Estimation Of Vessels Cost: After 5 years
98	8-7	(A) Investment Proposal: Scenario 2
99	8-8	(B) Investment Proposal: Scenario 1
100	8-9	(B) Investment Proposal: Scenario 2
101	8-10	(C) Investment Proposal: Scenario 1
102	8-11	(C) Investment Proposal: Scenario 2

List of Charts

6	2-1	Dry Cargo Freight Market Volatility: 1985-1997
6	2-2	VLCC Spot Rates - \$/day: 1990-2004
7	2-3	Aframax Values - \$ mil.: 1993-2005
18	4-1	World Oil Demand Growth: 2001-2006
18	4-2	China Oil Demand Growth: 2002-2007
19	4-3	World Tonnage Supply Growth: 2003-2006
31	5-1	Bank Portfolios In Greek Shipping - \$ mil.: 2001-2005
35	5-2	Corporate Debt Issuance: 1994-1999
35	5-3	Annual Default Rates: 1980-1999
77	7-1	Market Cap: 1995-2004

Theoretical Part

Part One

The Green Light

1

The Green Light

*“After a certain point, money is meaningless. It ceases to be the goal.
The game is what counts.”*

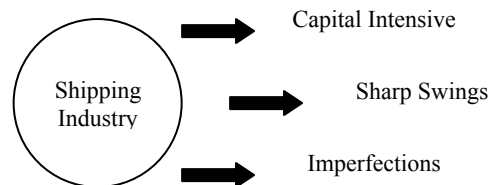
Aristotle Onassis

CHAPTER 1

Market Inspection

The aim of this chapter is to define some of the basic characteristics of the shipping industry (figure 1-1), which separate it from other industries and consequently may influence the finance decision. The capital needed for a ship acquisition which constitute an entry barrier for a new market player and the volatility of the freight and vessels market will be examined in the next chapter.

Figure 1-1: Market Characteristics



(Source: Author, 2006)

As an IMO (International Maritime Organization) secretary general has once said, “shipping has a great story to tell”, and he was right. Shipping constitutes one of the most important and interesting industries in global trade if you take into consideration that two-thirds of the world’s goods are transported by sea and about 9.000 commercial ships trade and carry cargoes of all types between the four corners of the world. Alfred Marshall (1842-1924), one of the founders of neoclassical economics, claims that “shipping is one of the most important activities of man for it creates economic value in conveying goods and people from one port to another”.

Shipping is at the heart of all industrial revolutions over the past three hundred years and is closely linked with what we characterize as trade globalization. Many industrial players claim that globalization of trade was possible by the efficiencies of commercial shipping and it is the continued development of shipping and especially containerization that will maintain and expand this globalization.

Shipping activity is of great interest not only for its historical contribution to economic development, the cultural exchange between nations and the amazing assortment of goods and people which moved over the world’s ocean trade routes but also for the fact that no other human activity has composed so many factors over which we have no control and services that most people do not know.

In most cases, the general public has no conception of the important role shipping plays in their everyday lives. Many industry sectors are highly secretive and operate beyond the sight of the vast majority of the population, which sometimes faces these sectors as suspicious. Mass media has played an important role in this situation. Shipping industry is not only Exxon Valdez or Prestige; in fact, shipping industry has played an important part in the growth of our world and continues its leading role as a basic factor of maintenance and development of human civilization.

Shipping industry can be divided into many sectors, like tanker market, dry bulk, liner shipping, passenger, e.t.c. In this thesis, the biggest part of our analysis basically focuses on the dry bulk and tanker market and their characteristics. **From now on when the term “shipping industry” is written, we refer exclusively to the tanker and dry bulk market.**

C H A P T E R 2

Market Oddities

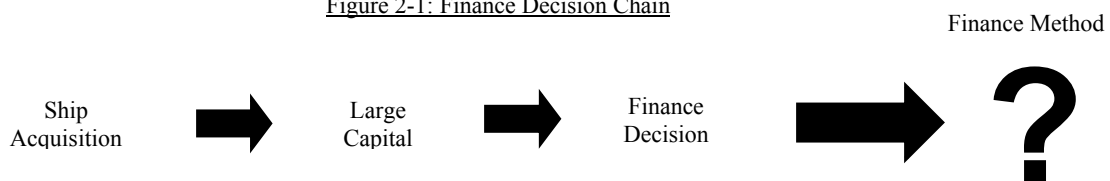
The Driving Force

Shipping constitutes one of the world's most capital intensive industries. The level of capital demand for a ship acquisition is nowadays relatively large, no matter if we examine the newbuilding or the secondhand vessels market and naturally affects the finance decision of a shipping company.

As a result, the shipping company nowadays must secure additional capital funds for the newly acquired asset, since the time when shipowners financed their new tonnage from their own resources are long gone and never really happened.

A VLCC (very large crude carrier) tanker vessel for example can cost up to \$125 million and a LNG (liquefied natural gas) carrier up to \$250 million, a price that makes it impossible for the shipowner nowadays to finance an investment plan like this from their own pocket (figure 2-1).

Figure 2-1: Finance Decision Chain



(Source: Author, 2006)

Data

In the example below (index 2-1 and 2-2), vessels prices are significantly high and depend on the market condition, which will be examined in the next chapter. At this point we can assert that if the market is strong or weak, it is something that will be reflected in the vessels newbuilding and second-hand market.

The Sharp Swings

On the basis of microeconomic theory, changes in the demand and in the supply of the product tend to affect changes in price. This accepted generalization applies to the shipping industry and particularly to the freight and vessels' market values.

The main trait of the shipping industry is its greater sensitivity to demand and supply in comparison to other industries. As a result, this greater sensitivity creates intense or sharp variations in the freight rate and vessels markets for a period of time.

Index 2-1: Newbuilding Prices: 03/2006

Type	No	Size	Yard	Owner	Delivery	Price \$ million
Tanker	6	52	Guangzhou Shipyard	Term	2009	46,5
Tanker	4	113	New Century Shipbuilding	OSG	2009	58,0
Tanker	2	318	Hyundai Heavy Industries	Euronav	2009	120,0

Index 2-2: Second – hand Prices: 03/2006

Type	Name	Size	Built	Sold to	Price \$ million
Tanker	Aristidis	37	2005	Omega Navigation	50,5
Tanker	Miltiadis M	71.522	2003	Omega Navigation	62,0
Bulk	Sophia	76.421	2002	Sea Justice	34,5

(Source: Optima Shipbrokers Weekly Report / March 31st, 2006)

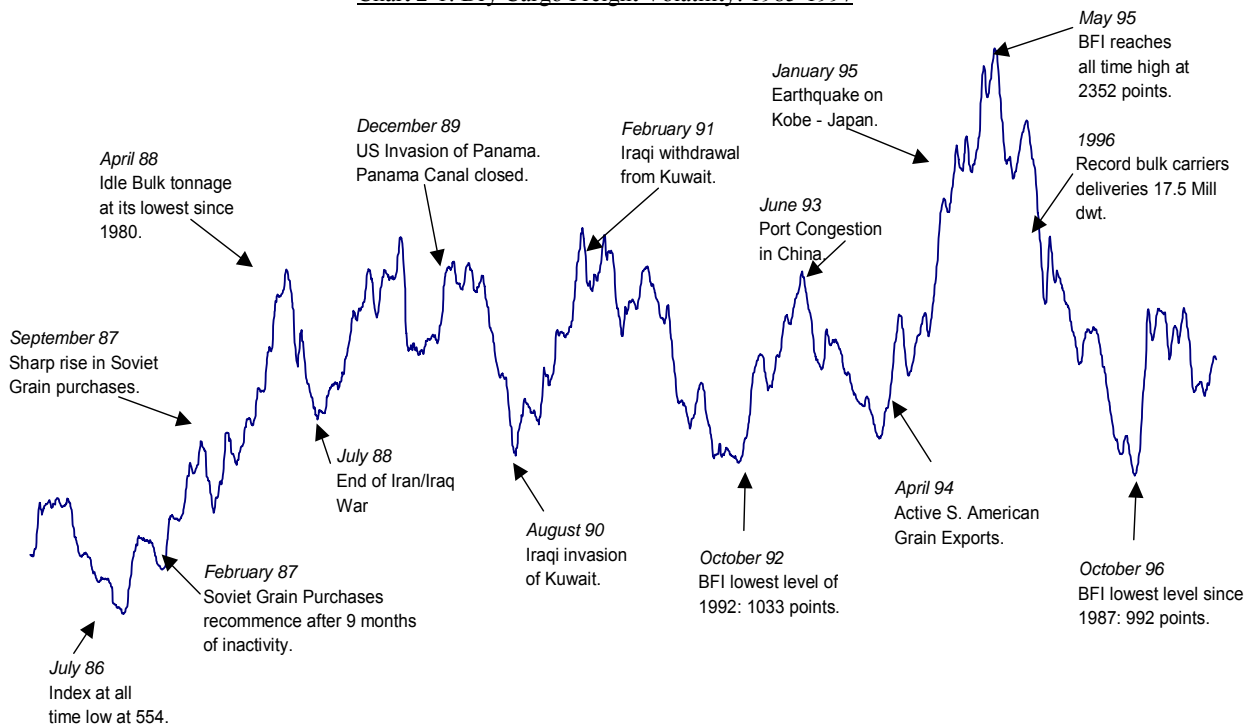
Basic relative factors of this volatility are the inelastic derived demand (1) for tonnage, which reacts rapidly to particular abnormal events. These rare events include economic, political and military events such as the Suez Canal zone conflict, the 1973 oil crisis and the Korean War in 1951 as well as climate changes, which furthermore create extreme and sudden changes in the market (chart 2-1).

Data

The average earnings per day for a single voyage from the Arabian Gulf to South Korea for a double hull (d/h) VLCC 260.000 dwt were \$53.034 in 2003, \$96.551 in 2004, \$60.700 in 2005 and \$84.900 in the first quarter of 2006. Chart 2-2 shows the significant volatility of the VLCC freight market from 1989 to 2004.

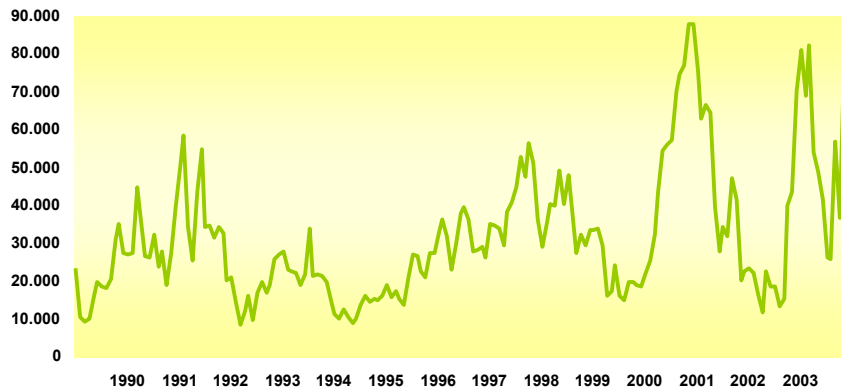
As it will be explored in detail in the next section, disharmony of vessels demand and supply creates volatility and affects market's freight rates. The result will be sharp variations in vessel prices. These variations will influence the financial decision of a shipping company and the financial institutions' and investors' behavior.

Chart 2-1: Dry Cargo Freight Volatility: 1985-1997



(Source: Clarkson's Research Studies, 2006)

Chart 2-2: VLCC Spot Rates - \$/day: 1990 - 2004

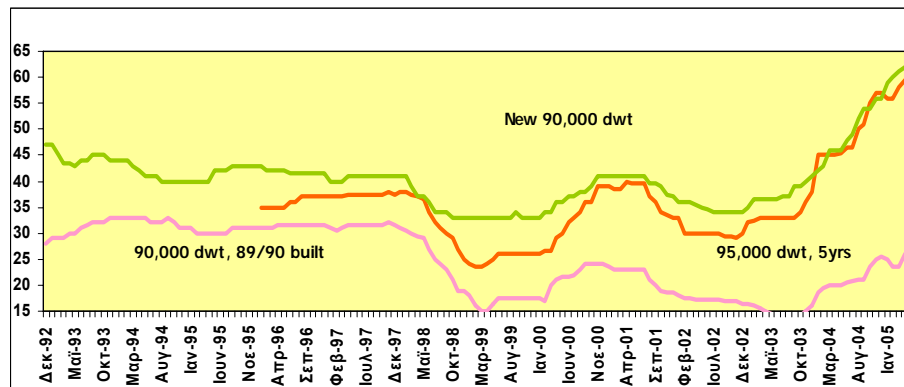


(Source: Intertanko, 2006)

Data

In the chart below (chart 2-3), the Aframax market price volatility is evident. As shown, the prices change rapidly from \$53 million in 1990 to \$33 million in 1999 and \$56 million in 2006 for a newbuilding Aframax tanker vessel 90.000 dwt. The same results (price volatility) can be observed for the five and fifteen year old vessels.

Chart 2-3: Aframax Values – m \$: 1993 -2005



(Source: Intertanko, 2006)

Market
Imperfections

Shipping industry gathers numerous basic conditions which are necessary in defining a market structure as *perfectly competitive*.

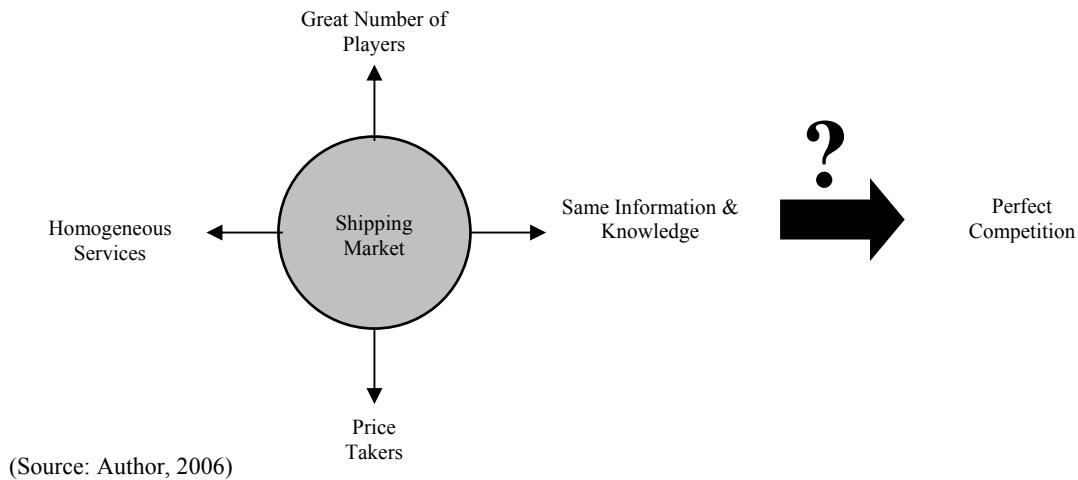
First of all, we can find a great number of market players (30.000 shipping companies) owning vessels and which are capable of producing homogeneous transport services. All potential players have same information and knowledge about the market condition (e.g. from brokers, Baltic exchange e.t.c) and the entry to the market or the exit from the market (e.g. scrapping, laying up) is free and can not be enough to have a perceptible effect on freight rates.

In other words, in a market structure like this, all the players are “price takers” as they accept as given the freight rate offered in the market, which is determined by the general market conditions of demand and supply, as mentioned before.

The question now is if all these requirements are enough to define shipping industry as perfectly competitive (figure 2-2). We mentioned before that the entry or the exit of a player is a matter of little significance for the market condition. How easy, however, is this entry or exit?

Examining the theoretical model of perfect competition, we can differentiate the importance of the *free entry* and *exit* of firms to a market. Free entry means that the entry of a player in a market can not be prevented by barriers like *capital requirements*, *economies of scale*, *product differentiation* e.t.c. Players are free to move into the market where they can make profit and leave from the market when they incur losses.

Figure 2-2: Hypothetical Shipping Market Structure



Entry
Barriers?

The high capital requirement for a ship acquisition constitutes a barrier for entry in the shipping market, which changes accordingly to the market condition. The investment required to establish a shipping firm limits to a certain extent the free entry (2). Even if capital is available in capital markets, entry represents a risky use of that capital in such a volatile environment for a new market player as mentioned before, who may have to pay higher spread and fees for loan transactions depending on bank competition and reputation of the borrower.

Ted Petropoulos of Petrofin S.A in NAFS' 2005 magazine issue asserts that even where such newcomers are from within the shipping industry itself and wish to enter the market at a low point in the shipping market cycle, as we will see in detail later, invariably all banks will find it difficult to obtain credit approval for such fresh clients wishing to enter or re-enter shipping unless there shall be other exceptional circumstances. Therefore, during periods when the ships prices are high, we will expect high entry barriers for the new market players and during periods when the ships prices are low, we will expect low entry barriers.

Exit
Barriers?

On the other hand, shipowners can easily leave the market (in one to three months) by selling their vessels or sending them to scrapping or simply remove the tonnage from market active supply (laying up) and start looking for other profitable markets to employ their vessels. In the first case, the total supply will stay unaffected. The new owners may continue operating these vessels until the end of their economic life. In the other two cases, the changes in total supply will be of little significance because as mentioned before, the exit of one player from the market can not be enough to affect the market condition.

Access to *financial markets*, the *emotional relationship* between shipowners and employees, the *historical traditions* of a shipping company, the shipowners *pride, optimism* and *hoping* for the market to return and the fact that the movement from one shipping market to one other entailing *high transfer costs*, constitutes three basics exit barriers of the shipping market.

In his book “Competitive Strategy-Techniques for analyzing Industries and Competitors”, Professor Michael Porter describes these exit barriers as *strategic interrelationship, emotional* and *specialized assets* barriers and recognizes that these kinds of barriers can keep companies competing in business even though they may be earning low or even negative returns on investment (3).

The question based on the analysis above is whether or not this situation leads to a shipping market paradox with a perfectly competitive market on the one hand and entry and exit barriers on the other hand. In fact, I will just call them imperfections.

Index 2-3: Shipping Market Barriers

Barriers	Deceptively	Actually
Entry	Free	Capital Requirements
Exit	Free	Specialized Assets Access To Financial Markets Emotional Barriers

(Source: Author, 2006)

C H A P T E R 3

The Business Cycle Is Always Alive

The shipping market constitutes a very interesting framework that demands skills, strategy, a bit of luck and of course, money to play. Like every “game”, there are both winners and losers. In this chapter, reference will be made to the shipping market as a *four season game*.

Game
oddities

The aim of this analysis is to examine when shipowners decide to buy a ship and what role the shipping market cycle plays in this decision. Conversely, shipping companies are forced to make investment decisions in a volatile environment. Shipowners take the risk that the ship they bought will be in demand and provide a worthwhile return on capital (4). Moreover a VLCC (275.000 dwt) tanker vessel for a trip from Arabian Gulf (Gulf) to the United States Gulf (US Gulf) earned \$45.376 per day in 2003, \$70.977 per day in 2004 and \$36.648 per day at the end of 2005. In such an environment, the timing of decisions about buying, selling or chartering a vessel is very crucial. But what is the business or the shipping cycle?

Theory of
Cycles

The American “business cycle” or the English “trade cycle” or simply the cycle refers to economic fluctuations that occur in many industries and in the economy as a whole and are not just unique to shipping. Many economists have tried to analyze the driving forces behind these cycles and classify them, usually depending on their length.

We can find a number of competing explanations in the economic literature for the business cycles. This chapter focuses on two basic schools of thoughts: the (a) *The real business cycle* (RBC) theory of the neoclassical school and the (b) *animal spirits* theory of the Keynesian school.

(a)
RBC
Theory

According to the real business cycle theory of Kydland and Prescott (1988) and the neoclassical school lead by university of Chicago professor Robert Lucas, prices of different goods and services are flexible and adjust readily in response to changes in the economy’s fundamentals (i.e. “price flexibility”). As a result, nominal variables such as prices, wages, and interest rates, which are determined by the equilibrium in the money market, will not influence the real variables of the economy like prices of goods and services, employment, and total output, which are determined by the Walrasian system (classical dichotomy) (5).

In order to examine the fluctuations in these “real” variables, the RBC theory suggests that real changes in the economy like productivity (e.g. due to technological improvement) or a labor supply change are the driving force behind these economic fluctuations. Kydland and Prescott (1982) and Long and Plosser (1983) were the first economists to recognize the possibility that business cycles could be caused by anything from random shocks to technology shocks (6).

(b)
Animal Spirit
Theory

The animal spirit theory is closely connected with the Keynesian economics, which supports the price and wages “inflexibility” as a result of the (a) price adjustment cost (i.e. menu costs) and the (b) long-term labor contracts. In other words, Keynesian economics destroy the classical dichotomy by abandoning the assumption that wages and prices adjust instantly to clear markets (7). The Keynesian school believes that understanding economic fluctuations requires not just studying the intricacies of general equilibrium, but also appreciating the possibility of market failure on a grand scale (8).

This school identifies market participants’ decisions in spending their income as the key source of economic fluctuations. In other words, this theory, which has been the subject of criticism by the academic community for numerous decades, suggests that change in consumer confidence, induced perhaps by *animal spirits* of over-pessimism or over-optimism, may influence personal consumption, savings and total output.

Duration of
Cycles

Economic literature has also distinguished and categorized different types of cycles usually based on their length. W. C. Mitchell in the Introduction to Business Annals (1929) made observations of the distribution of cycle durations. Covering seventeen countries for varying periods, Mitchell secured one hundred and sixty-six observations of the duration of business cycles (10).

The most frequently listed cycles of economics in correlation with each cycle’s length and discoverers are: (a) the Kitchin or *inventory cycle* (three to five years), (b) the Juglar or *investment cycle* (seven to eleven years), (c) the Kuznets or *building cycle* (fifteen to twenty-five years) and (d) the Kondratieff or long wave cycle (forty-five to sixty years).

The
Kitchin

The Kitchin three to five year short cycle (1923) or the inventory cycle is associated with the inventory investment in the economy. This theory suggests that cyclical fluctuations in overall economic activity are caused by fluctuations in the inventory investment of companies.

The
Juglar

Conversely, the Juglar seven to eleven year cycle (1862) or the fixed investment cycle is associated with the investment in fixed assets including machines, equipment, and ships. This theory suggests that cyclical fluctuations in overall economic activity are caused by fluctuations in investments in machines, equipment, and ships e.t.c.

The
Kuznets

The Kuznets fifteen to twenty-five year cycle (1930) or the building cycle is associated with construction activity, which includes investment in residential as well as non-residential structures (11). This theory suggests that cyclical fluctuations in overall economic activity are caused by fluctuations in investments in construction projects (housing/building) as a result of an economic and demographic change.

The
Kondratieff

The long cycle (1926) theory developed by the Russian agricultural economist Nikolai Dmitrievich Kondratieff during and after the First World War constitutes the most puzzling and least understood theory of the cycle duration (the longer a cycle, the harder it is to prove its existence...) and has received much attention as well as criticism from the economists globally, especially as a result of the absence of a theory explaining the origin and the dynamics of the long cycles (12). Kondratieff, the Professor of the Agricultural Academy and of the Business Research Institute of Moscow presented his theory for the long cycles in several books and papers between 1922 and 1928.

With his third article, “The long waves in economic life”, published in 1926, Kondratieff tries to explain his theory based on the observation of 19th century price series, including interest rates and wages as well as a few value series including foreign trade and bank deposits. His observations were based on the study of twenty-five statistical series of which ten concerned the French economy, eight the British, four the United States of America, one the German and two the world economy (13). From this database Kondratieff identified three cycles with the upswing starting in 1790, 1844 and 1895 (index 3-1).

Index 3-1: Kondratieff Cycles

<u>Cycle</u>	<u>Prosperity</u>	<u>Recession</u>	<u>Depression</u>	<u>Revival</u>	<u>Length (years)</u>
1	1787-1800	1801-1813	1814-1827	1828-1842	55
2	1843-1857	1858-1869	1870-1885	1886-1897	54
3	1898-1911	1912-1924	1925-1939		

(Source: Simon Kuznets, 1940)

Schumpeter
&
Innovation

Business cycles according to Professor Joseph A. Schumpeter (1883-1950) in his book: *Business Cycles: A theoretical, historical and statistical analysis of the capitalist process* (1939), are recurrent fluctuations in the rate at which innovations are introduced into the economy, in the intensity with which entrepreneurs exercise their *sui generis* function of overcoming obstacles to new combinations (15).

The behavior of the entrepreneurs has a central role in Schumpeter's theory. The entrepreneurial ability to overcome obstacles and promote innovations creates new openings in the economy and clusters where there are few with such ability and many others who follow the pioneering efforts of the few. As Schumpeter mentioned, "...the appearance of one or a few entrepreneurs facilitates that appearance of others, and these the appearance of others, and these the appearance of more, in even increasing numbers" (16). This is the basis of the "wave-like movement" of economic life.

Shipping
Cycle

We can also find a lot of theories explaining cycles in different sectors of the economy (i.e. stock market, real estate e.t.c.). In shipping the existence of cycle has long been accepted as part of the shipping business (19) and the usual analysis of this process is basically the demand and supply model. The demand side of the model is closely connected with the world economy cycle and the supply side of the model with the investment cycle. A number of economists have tried to examine and analyze the shipping cycles (i.e. Fayle, Kirkaldy, Stopford) and measure their duration (i.e. Hampton, Stopford).

Theories

E.C Fayle (1933) recognized that random shocks in the economy, like wars, create a shortage of ships in the market. As a result, the increasing freight rates attract investors and expand shipping capacity (20). Kirkaldy (1913) mentioned that cycle can be seen as a consequence of the market mechanism and Dr. Martin Stopford connects his theory regarding shipping market cycles with the shipowner's psychology as well as market profitability and recognizes cycles in the shipping industry between nine and ten years each in duration.

Duration

In his theory, M. Hampton deals with the long and short cycle in the shipping industry (1989). The long shipping cycle (LSC, twenty years in duration) influences the decision of a shipping company of whether to enter or exit from the market. The long shipping cycle also relates to the decisions that banks and other financial institutions have to take as well as the decisions of the shipyards.

The long shipping cycle constitutes two basic periods: the (a) *building* period (eight to twelve years) consists of three short cycles and is characterized by freight rates that fluctuate at high levels, newbuilding contracts and a general feeling of over-optimism in the market and the (b) *correction* period (eight to twelve years) which consists of three short cycles and is characterized by low level freight rates, high rate of ship scrapping, and an investment suspension in the industry (21).

The short shipping cycle or SSC (three to four years in duration) of M. Hampton is closely connected to the shipowner's decision to buy, sell or scrap a vessel in the market. This cycle's basic characteristic is that it starts and ends with low level freight rates in the market and is a result of two basic factors: the (a) *trade cycle* of the economy and the (b) shipowners *psychology* about the market (22).

Frequency

Cycle does not necessarily imply regularity and thus appears in fluctuations of variable length. Between 1873 and 1989, Dr. Martin Stopford recognized twelve cycles in the shipping industry (dry cargo sector). The average of these cycles duration was 8.2 years as seen in the index below (index 3-2) (23).

Index 3-2: Dry Cargo Freight Cycles

<u>Cycle No</u>	<u>Start Peak</u>	<u>End Peak</u>	<u>Length (years)</u>
1	1873	1881	8
2	1881	1889	8
3	1889	1900	11
4	1900	1912	12
War	1913	1919	-
5	1921	1926	5
6	1926	1937	11
War	1939	1945	-
7	1945	1951	6
8	1952	1957	5
9	1957	1966	9
10	1966	1975	9
11	1975	1980	5
12	1980	1989	9

(Source: Dr Martin Stopford, 1997)

In this thesis, a perfect shipping market cycle based on changes in tonnage demand and supply will be taken into consideration. This cycle can be divided into “four seasons”, congruent to the seasons in which shipowners make their investment decisions in explaining why and how these decisions may influence market conditions.

CHAPTER 4

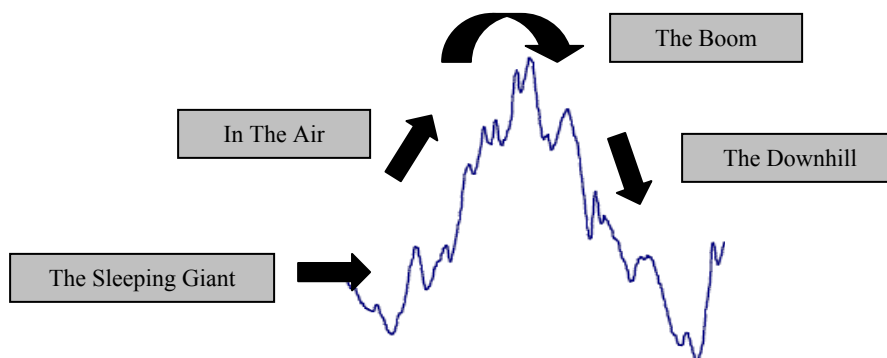
The Four Seasons Game

"Animal Spirit"
in Shipping

Cycles are far more complex than a sequence of regular fluctuations in freight rates. The shipping cycle of our analysis from the supply side is based on the Keynesian animal spirit theory as described before and recognizes the shipowners' feelings of over-optimism or over-pessimism about the market condition as a variable with a central role in this four season game and which influence their investment decisions. On the contrary, the world economy also plays a central role in this analysis as a variable, which will influence the demand side of the four season game.

At this point it can be asserted that if the market is depressed with weak cash flows for shipping companies (tonnage supply > tonnage demand), we can expect shipowners to sell or scrap their vessels. On the other hand, when the market is good (tonnage supply < tonnage demand) with strong cash flows for shipping companies, new vessel orders and financial offers are to be expected.

Figure 4-1: The Four Seasons Game



(Source: Author, 2006)

(1)
The
Sleeping
Giant...

The first depression's season is called the *sleeping giant* and is characterized by a very low level of tonnage demand and a significant number of laid up vessels (e.g. about eight million d.w.t. of laid up vessels in 1994). Clearly, the law of supply and demand determines which ship will earn a profit. If there are many ships and few cargoes, there is a competition among shipowners.

As a result, freight rates are very low and in some cases are just enough or even below to cover vessels costs. The lack of tonnage demand and negative cash flow, forces shipowners to sell their vessels at extremely low prices (e.g. the 1980's recession when oil companies were scrapping four-year-old VLCC's).

(2)
In the air...

Is something in the market really changing or is it permanent? This question dominates a second season of this analysis, which is *in the air*. An unpredictable increase in transport demand changes the market view, but not extensively. This rise of demand has a minimal effect on freight rates that cover the cost of a vessel and a significant decrease in laid up vessels (24). A feeling of uncertainty, however, governs the market and the shipowner's decisions during this season.

(3)
The
Boom...

In response to the above question, something really changes and that is the market condition. In the third season, described as the *boom*, the continuous increase in transport demand decreases laid up vessels and increases freight rates. In conflict with the first season, there are many cargoes, few ships, and an ongoing competition among shippers with consequent increases in freight rates. After a certain point, industry is at full capacity, which means that almost 100 per cent of the vessels operate in the market. A small shift in demand will cause a massive rise in the freight market (25). In other words, when demand overtakes supply, the market is booming and freight rates fluctuate at high levels.

From the previous season's feeling of uncertainty, one passes into this season with a feeling of optimism. The market has changed and rising demand brings new tonnage into the market to cover this demand gradually (newbuilding are not readily available to operate in the market). Shipowners become very liquid because of high freight rates and the shipbuilding order book expands.

As mentioned before, freight rates have their primary influence on vessel prices (26) and as a result, we observe a significant price increase in the newbuilding and secondhand vessel markets. The main question preoccupying shipowners during this period is whether to buy or sell a vessel?

Where can I
find money?

In the *boom* season, banks and other financial institutions take part in this analysis, keen to lend and invest in the shipping industry. Ironically, banks seem to lend someone money when they know that an individual or company does not really need their money. In other words, banks give someone their financial umbrella when the day is sunny and take it back when it starts to rain (Mark Twain).

Moreover, a high performing environment capable of providing exciting investment returns attracts the attention of investors from public markets (stock exchanges & bond markets). Stock exchanges, as we will examine, like NYSE or NASDAQ, offer a vital place for the shipowners to finance their investment projects. Which method might shipowners choose: debt or equity?

(4)
The
Downhill...

In the fourth season called *downhill*, shipowners' over ordering led shipyard's capacity to overbuilding and the tonnage supply overtakes demand. Rapidly growing deliveries combined with stagnating demolition means that over the next few years the fleet will grow. As a result, depressing freight rates will soon appear followed by an increase in laid up vessels. Only the most "attractive" vessels operate in the market (27) while the freight rates take a ride downhill. What may happen from here on is unclear and completely unpredictable. Only market's God knows!

4.1 The Boom & The Beast

In mid-2004 occurred the peak of the biggest shipping boom of the last eighty years and a shortage of ships for the first time in thirty years. It was the top of a business cycle and many new vessels were coming into play.

The
Basic
Factors

Two basic factors were crucial in contributing to this business cycle: (a) the first was the China's trade boom, which drew in vast amounts of raw material and accounted for approximately 40 per cent of the growth of dry cargo trade over the last seven years and (b) the overall growth of world energy demand (chart 4-1). This overall growth, especially of developing nations like China and India (chart 4-2), created an unpredictable increase in tonnage demand. Approximately 3,200 ships were traded on the spot in 2004 and earned \$39 billion.

The
"Super
Market"

As a result, there was a large increase in freight rate in both bulk and tanker markets. This increase created an optimistic feeling for shipowners about the market behavior and thereby pumped dollars into the industry. For most of the previous twenty years, charters had the upper hand and now it was the shipowners turn. The tanker vessel's spot market earnings for the past twelve months of mid-2005 had been considerably higher than the long-term historical average, as seen below (index 4-1).

Chart 4-1: World Oil Demand Growth: 2001-2006

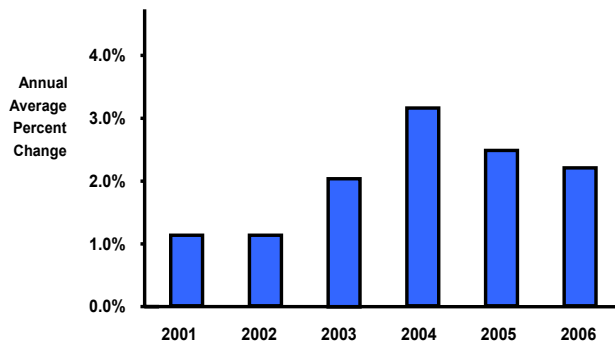
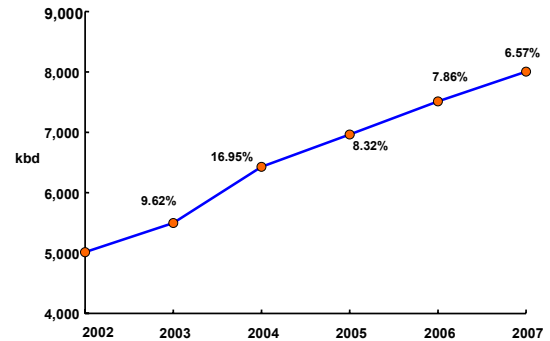


Chart 4-2: China's Oil Demand Growth: 2002-2007



(Source: Cambridge Energy Research Associates, 2006)

Data

However, the Clarkson's index (a measure of the average earnings for the tanker, bulk carrier, containership and gas for charter markets) has shot up from an average of \$9,900 a day during the 1990s to a current level of \$41,000 a day in 2005. An old saying in the trade says that "one good year is balanced by seven bad years", and that is exactly what has happened during this period.

Index 4-1: Tanker Market Summary: From March 2004 to March 2005

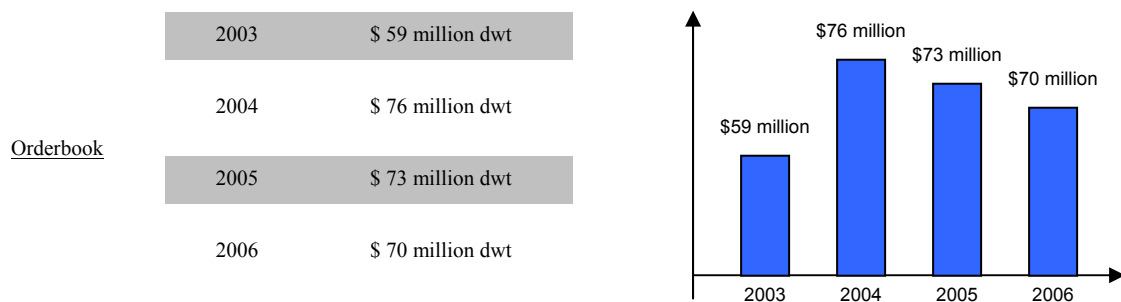
	<u>10 YEAR AVG</u>	<u>12 MONTH 03/04-03/05</u>	<u>% CHANGE</u>
V.L.C.C	\$ 34.658	\$ 68.647	+ 98,1%
Suezmax	\$ 30.127	\$ 57.345	+ 90,3%
Aframax	\$ 21.982	\$ 34.873	+ 58,8%
Panamax	\$ 19.234	\$ 29.857	+ 55,2%

(Source: Poten & Partners, 2005)

Shipowners considered (as it is shown by their actions) that the active supply was not enough to cover this continuous growing demand and thus decided to order new vessels. They had two factors on their side: (a) a market condition with great liquidity because of high freight rates and (b) the presence of financial institutions. From \$10 billion spent on new tanker vessels in 2003 freight rates shot to \$20,7 billion in 2005, while the world tonnage supply jumped from 112 million d.w.t in 2002 to 227 million d.w.t in 2006 (chart 4-3).

As a result, there was a significant increase in vessel prices from 40 per cent to 60 per cent, with shipyard capacity set to expand. Of course, the growing tonnage demand and the shipping companies' profits was not the only factor of this rise in vessel prices. Labor costs and rising steel costs also played a role to this situation. Imagine that a Suezmax tanker vessel cost \$43,8 million in 2002, \$51,5 million in 2003 and \$71,0 million in 2004.

Chart 4-3: World Tonnage Supply Growth: 2003-2006



(Source: Clarkson Research Services, 2006)

Yet beautiful things do not last forever. A rapid growth in deliveries of vessels created an overcapacity in the market. The tonnage demand did not continue to grow with the same pace and stayed rather stable. The result was a fall in freight rates, especially in the tanker market where there was a decrease of about 40 per cent in VLCC and 20 per cent in the Suezmax and Aframax market at the end of 2005.

From Rich
to Poor?

Dr. Martin Stopford in 2006 Intertanko Singapore Event presented the shipping market situation of 2005 and 2006. As shown in index below (index 4-2), there was a capacity surplus in 2005, which explains the fall in freight rates during that period. The prediction about 2006 is that this surplus will continue to exist but will not grow. In contrast, the surplus will decrease and as a result, there will be an expected small increase in freight rates or a small spike in the shipping cycle.

Data

Conversely, the report made public in 2006 by the American bank Citigroup was very pessimistic for the freight rates in the tanker and dry bulk sectors. As you can see in the index below (index 4-3), the decrease in the freight rates that the report predicted was significantly high and fluctuates between 30 per cent and 40 per cent in 2006 and between 20 per cent and 30 per cent for the first quarter of 2007. The main reason for this situation is the tonnage supply surplus that will exert pressure on the shipping companies' revenues and to the shipowners' returns.

Debt or Equity?
The Green Light

Index 4-2: Short Term Supply/Demand 2005/6

Item of Investment In million dwt	<u>2005</u>	<u>2006</u>
Scrapping + Conversion 2005/6	4,8	5,0
(+) Demand Growth 2005/6	10,0	10,0
Deliveries Needed 2005/6	14,8	15,0
Less		
Orderbook for Delivery December 2005/6	29,7	26,1
Surplus	+ 14,9	+ 11,1

(Source: Dr Martin Stopford / Clarkson's Research Services Limited, 2005)

Index 4-3: Freight Rates Forecast: 2006 and 2007

<u>Vessel Category</u>	<u>2005</u>	<u>Estimation 2006</u>	<u>Estimation 2007</u>
Tanker Freight Rates (\$)			
VLCC	64.337	42	29
Suezmax	52.06	30	23
Aframax	41.146	24.2	19
Panamax	38.37	20	17
Handymax	31.181	19	15
Dry Bulk Freight Rates (\$)			
Capesize	52.376	30	20
Panamax	26.956	18	13
Handymax	17.136	22	10

(Source: Citigroup, 2006)

Freight rates may remain high during this period. For how long, though? What will happen when the newbuildings which are set to arrive in 2009 start to operate in the market? Could the cycle follow the same pattern as the shipping industry's previous cycles, where the biggest shipping booms are followed by equally extreme recessions similar to those of 1956 and 1973? Only time will tell.

4.2 Killer's Instinct

Keynes
speculators!

All important decisions in the shipping market depend on the ability to foresee future trends in freight rates. The volatility of the freight and vessel values market may cause the appreciation of the value of a ship three or four or even twelve times in a boom season and depreciate it in a depressed market. As a result, it is more possible to become richer from buying and selling vessels than operating them in the market. The relationship is one to three (e.g. a good sale = 3 years of operation).

Data

In the example below (index 4-4), presented at the Intertanko Athens tanker event in 2005 by John Kartsonas (Citigroup), two different situations are possible. On the one hand, a VLCC vessel costs a shipping company \$130 million and after one year of operation with an average day rate at \$65,000 and an annual cash flow at \$19 million, the company decides to take advantage of the market condition and sell the vessel at \$128 million. The return on investment for the shipping company is in that case 13 per cent. On the other hand, if the company decides to sell the same ship when the prices are low, it will face a negative return on investment. If the sale price for the same ship after one year of operation with the same day rate declines at \$83 million, the return would be minus 22 per cent for the shipping company.

Index 4-4: Return on Investment in Shipping

	VLCC	Suezmax	Aframax		VLCC	Suez ax	Aframax
Acquisition Price	130	80	65	Acquisition Price	130	80	65
1 Year Average Dayrate	65	45	35	1 Year Average Dayrate	65	45	35
Annual Cash Flow	19	12	10	Annual Cash Flow	19	12	10
Sale Price	128	78	63	Sale Price	83	53	47
Return	13%	13%	12%	Return	-22%	-19%	-12%

(Source: John Kartsonas, Citigroup 2004)

From that point of view, shipowners act like Keynes' speculator. They want to buy at low prices and sell at high prices and making profit. Between 2004 and 2005, the Pacific and Atlantic Corporation managed by Nicolaos Pateras, sold thirty bulk carriers, exploiting the market condition. As a result pumps money into shipping company and the company's bank accounts.

Forecast?

Moreover, a cycle does not mean regularity. Most shipowners and shipping analysts expound that the market is grounded to past events. It is very difficult and almost impossible for an analyst to forecast market conditions (e.g. time or length of shipping cycles) using statistic or econometric models because it is too sensitive to small market changes. “market study” is the key phrase, not only for the shipowners, but also for the analysts. Study of variables like trade growth as well as ordering and scrapping of vessels can provide a small taste of what will happen to the market in future.

Data

In the example below (index 4-5), Clarkson’s research studies and Bank of America presented a time charter rate forecast for the first two quarters of November of 2006. Clearly the differences between the freight rates forecast and the freight rates as determined in the market the first two quarters of 2006 for all vessels categories (VLCC, Suezmax e.t.c) are significantly different, especially in the second quarter of 2006 when this difference fluctuated between 20 per cent and 35 per cent.

Index 4-5: Forecast?

	Clarkson's & Bank of America Securities LLC		Clarkson's Market Report		Variation %	
	10-Nov-05		10-Apr-06			
	TCE Forecast - \$/day		TC - \$/day			
	1Q 2006	2Q 2006	1Q 2006	2Q 2006	1Q 2006	2Q 2006
VLCC	80	42	72.06	33.889	-9,92%	-19,31%
Suezmax	70.4	38	56.545	29.496	-19,68%	-22,37%
Aframax	44	30	40.092	20.342	-8,88%	-32,19%
Clean Products	38	30	32.47	18.81	-14,55%	-37,30%

(Source: Clarkson’s Research Studies, Bank of America, Jefferies & Co, 2005)

Peter Stokes claims that the strategic decision-making process, if it exists at all, is still too often based on the hunches of one man (28). In most cases, shipowners base their decisions not only on market study but also on their instinct and take risks without knowing what will happen in future. They make the decision of buying a vessel in the boom season without knowing what the market condition will be when the ship is delivered after two or three years. Can such important decisions be based solely on the shipowner’s instinct? Perhaps these decisions ought to taken by instinct because when they are successful, a ship owner’s instinct is a killer!

C O N C L U S I O N

The aim of this part was to outline the “shipping finance decision” of a shipping company, which constitutes the basic subject of this Thesis. This part is fittingly called “The Green Light”, as the finance decision of a shipping company is like a car waiting for the traffic light to change and reflects the market condition of waiting for the green light to go on.

This green market light can be applied to the *Four Seasons Game* presented in the second chapter of this part, when there is an unpredictable increase in tonnage demand, both in theory and in practice, within the shipping market. “Unpredictable” is a word that can be used to characterize the shipping industry as well as the decisions of shipowners. It is really too difficult to make a precise forecast in such a volatile environment and to use models and equations to make predictions and make serious decisions. Instinct and market study are key factors within the shipping industry.

Moreover, shipping is like a game and in a game as we mentioned, there are winners and losers. When the market is up and the green light appears, shipowners take investment decisions like a ship acquisition to cover the growing demand and take advantage of the high freight rates without knowing the market condition when the vessel is delivered after one to two years. The capital needed for a ship acquisition, as made evident before, is relatively large and constitutes an entry market barrier, something that forces shipowners to ask for a help from financial institutions that are keen to lend a shipping company during this period. Nevertheless, what are the alternative methods that shipowners can use to finance their investment projects? The answer will be given in the next part.

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Theoretical Part

Part Two

It Takes Two To Tango

2

It Takes Two To Tango

“Capital as such is not evil. It’s wrong use that is evil. Capital in some form or other will always be needed.”

Mohandas K. Gandhi

CHAPTER 5

One Small Step For Shipowner, One Giant Step For Market

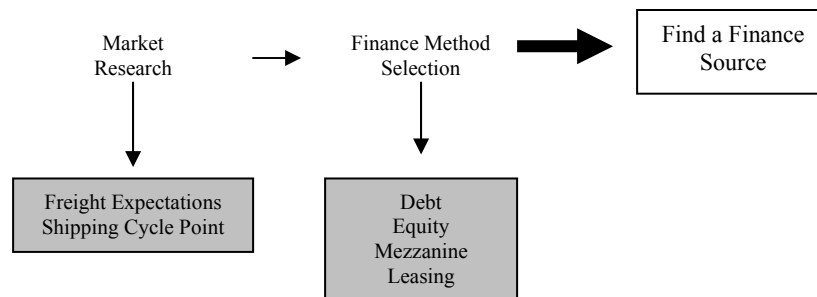
We interpreted shipping market in the previous part as an interesting game which demands skills, strategy, luck and money to play. The aim of this chapter is to answer the question: Where or how can a shipowner find money?

Shipping finance constitutes a basic factor of a shipping company’s creation and growth (1). In this chapter we will start our analysis describing the two basic steps which a shipowner should take into consideration before making the final decision in financing an investment project like a ship acquisition. In this chapter we will examine the finance decision process of a shipping company.

The first is: (a) the *research* step, which includes the examination of two basic variables; (i) the season of the shipping cycle and (ii) the freight rates expectations. The analysis of these two variables is very important when a shipping company decides to buy a vessel. After the careful examination of these the next step is (b) the *selection* of the appropriate financial method for the shipping company (figure 5-1). How will the company finance this project? From where will the money come?

Debt or Equity?
It Takes Two To Tango

Figure 5-1: The First Steps



(Source: Author, 2006)

(a)
The Research
step

As presented in chapter two in the four seasons game the first two seasons the market condition does not induce shipowners to invest in purchasing new vessels and expand their fleet. Moreover, in a depressed market with weak cash flow and a feeling of uncertainty that governs all the players in the market, all financial institutions are hesitant in offering their financial help (e.g. compare the behavior of banks in the 1970s and 1980s).

On the other hand, in the third period the growing tonnage demand and the shipping company's high liquidity as a result of high freight rates, push towards a financial expansion. The market is different now and gives a green light to the optimistic shipowners who want to cover this growing tonnage demand by expanding their fleet.

As a result, the correlation between freight rates and vessels prices drive to a significant price increase in vessels market (newbuilding and second-hand) and create a need for financial help. Clearly, it is too difficult for a shipping company to finance an investment plan from its own resources, as mentioned before. The finance of a ship acquisition demands two basic conditions: (a) the shipowner's market research and (b) the selection of an appropriate method. Where there is a ship, there must also be ship finance. Without these two factors you can not play the game or as the title of this part mentions, needed two to dance... When a shipping company wishes to expand its fleet, it can consider a number of alternative methods of finance. But which are these methods?

(b)
The Selection
step

Financial methods change from one decade to the other. In this part we will describe four different modern methods of ship finance (figure 5-1). In the next parts we will examine in detail two finance methods: (a) syndicated loan as debt instrument and (b) initial public offers (IPOs) as equity instrument in order to examine when the shipowner will choose debt or equity in order to finance an investment project.

Debt

In the first method (*debt*), we can find two major sources of capital. *Bank loan* with its two major forms (bilateral and syndicated) and *bonds*. These debt instruments constitute traditional methods for the shipping companies to raise capital with the owners investing in the acquisition of a ship while retaining its ownership and with the lenders of capital having fixed claims (capital return + interest) vis-à-vis the shipowners claims (figure 5-2).

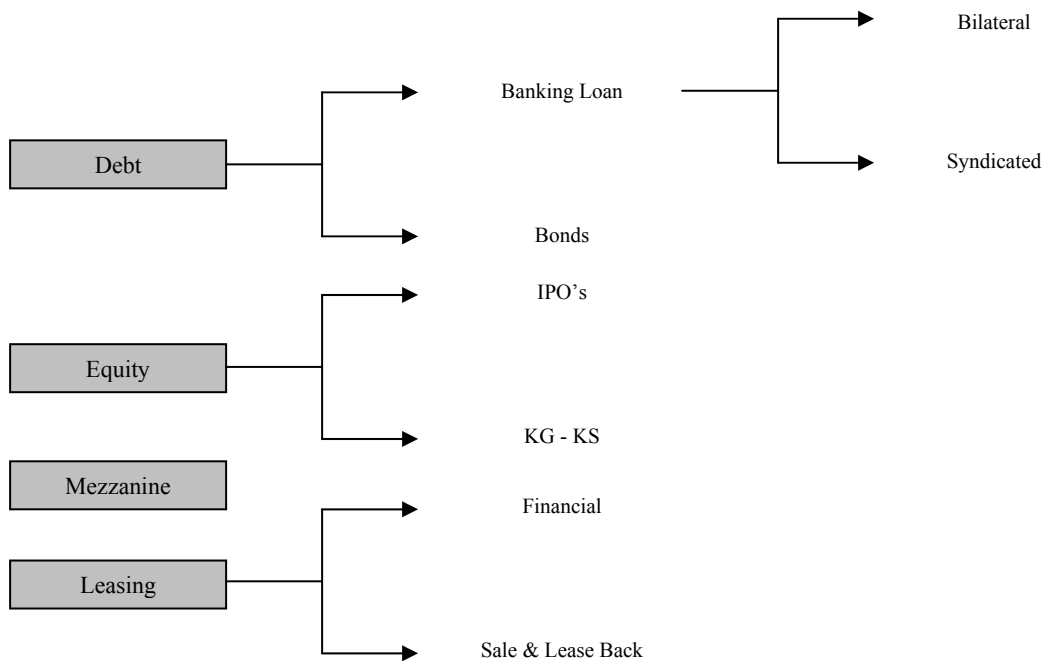
Equity

In the second method (*equity*), the shipping company looks for investors who are going to buy a share of the shipping company and participate together with the shipowners in the vessel's operation risks and rewards. The claims of the investors depend on the cash flow of the shipping company. The larger the cash flow is, the more value is created for the investors. In this part we will describe one of the two main sources of equity capital: the *German K/G* and the *Norwegian K/S* sectors (figure 5-2).

Leasing and
Mezzanine
Finance

At the end of this part we will describe two other sources of capital for the shipping company. The first one is the *mezzanine finance* or a finance method between debt and equity, and the second is the flexible *leasing* transaction or *bare boat* charter and its basic forms, which often appear in the shipping industry in the form of *financial leasing* and the *sale and lease back* method (figure 5-2).

Figure 5-2: Alternatives Sources of Shipping Finance



(Source: Author, 2006)

Banks constitutes a major source of capital for shipping investments. The basic financial instrument of banks is LTV or *loan to value*, which refers to the amount of finance that a bank will lend to a shipowner for a newbuilding or second-hand vessel and it is calculated as a percentage of the vessel's value at the time of the loan contract (2).

Bank lending was always there but grew rapidly in the 1970s and especially between 1967-1973 when the tanker market was booming and shipping was an industry capable of providing high investment returns. Maybe bankers in that period had ignored that a basic characteristic of the shipping industry is the significant volatility and unpredictability in the freight and vessels market. Banks coming into the market at that time did not have the background of prior shipping slumps against which to judge the security of their lending policies and be more careful in the way they had made loans (3). The 1973 recession certified this but it was too late for them. Until that period, shipping companies had financed their investment projects basically from their own resources (private equity) or from shipbuilding credits (e.g. shipyards loans).

The two basic types of bank lending nowadays are the traditional *bilateral* and the *syndicated* loan, which is joined by two or more banks. We will have the opportunity to examine in detail the basic steps of a loan transaction in the next part of this thesis.

Generally, shipowners express to the bank managers their views about the market condition and the purpose of the loan and negotiate with bank managers some basic aspects of the loan transaction (capital, desirable percent of finance, loan period, the interest rate, collaterals and covenants). The selection of a bank from the shipowners depends on many factors such as the relationship and the credit/loan performance and history with this bank in the past.

On the other hand, a shipowner's reputation plays always an important role when the bank manager makes the decision to provide a loan officer to negotiate the loan terms with the shipowner. The tighter availability of credit and the raising cost of the ship loans in the 1990s as a result of the banking crisis of the 1970s and 1980s, forced many banks to be more careful in the way they lent (e.g. between 1981 and 1987 two shipping banks went bankrupt).

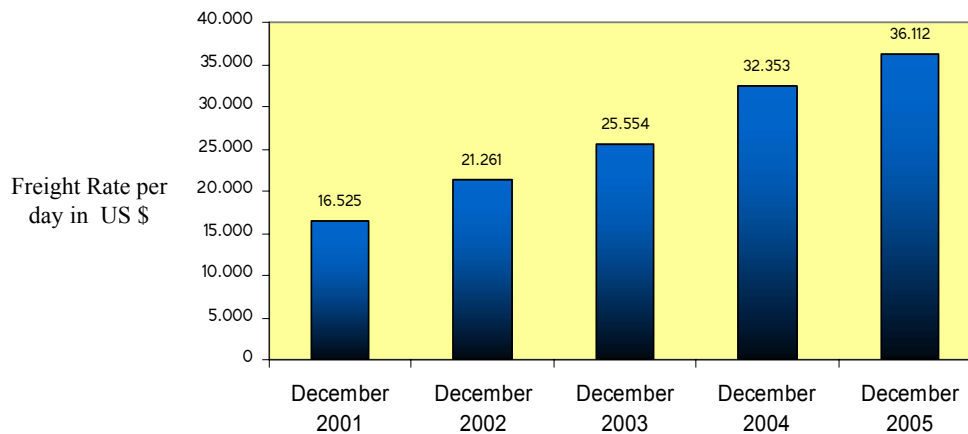
Banks were no longer so much as in the past interested in financing new transactions even though the majority of the clients were shipowners which they have repeatedly done business in the past (4). Today banks' behavior and market have changed and the reputation of the shipowner plays again an important role in banks' finance decisions.

The primary concern of any bank in lending money is that the loan to be repaid together with due interest (5). The primary concern of a bank is if the shipowner will have the ability to perform his responsibilities at the right time and secure the bank, if he defaults. Risk and lawyers are the two things that banks hate and try to leave out from their transactions. Besides, the lessons from the past have not been forgotten and banks are now more careful with their financial decisions. Banks examine the *market condition*, the level of market *freight rates*, shipping company's *cash flow* and *liquidity* and the existence of a *time charter* (e.g. a five year time charter) for the company's vessels. If the bankers are happy with the results of their examination, then the shipowner will sign the contract papers with terms that are dependent upon the assessed risk.

Greek Loan
Portfolio

Shipping, as mentioned before, had enjoyed two very successful years in 2004 and 2005, with freight rates and vessel prices rising to unpredictable heights. As a result, the progress of Greek shipping with satisfactory profits performance and an improved balance sheet combined with the decision of the Greek owners to invest in newbuilding vessels, could not be ignored from the bank community (Appendix II). As seen in the figure below (chart 5-1), banks have substantially expanded their loan portfolios to finance Greek shipping investments since 2001.

Chart 5-1: Bank Portfolios in Greek Shipping – \$ mil.: 2001 - 2005



(Source: Petrofin S.A, 2006)

Royal Bank of Scotland's (RBS) shipping banker Barry Martin, who handles the Greek market, comments that the role of ship mortgage debt is not going to change. It is the most flexible and it is the cheapest. Rarely does a mortgage deal go full term; RBS clients, buying and selling ships, welcome the ability to draw down, then repay it as their situation changes, and then re-draw as their needs change. RBS portfolio continues to turn over, (Jane's Transport Finance – July 13, 2006).

As seen in the index below (index 5-1), international and Greek banks like National Bank of Greece or Alpha Bank finance Greek shipping. Although Royal Bank of Scotland (RBS) is still the market leader, banks from the United Kingdom number two, together with HSBC. The biggest presence in the Greek lending sector both in terms of number of banks and loan portfolios, are German banks, which are seven in the top twenty-five. As Ted Petropoulos, managing director of Petrofin S.A asserts, this vividly demonstrates the withdrawals over the years from key roles of prominent British banks such as Barclays, Bank of Scotland as well as many of the old merchant banks such as Hambros, Guinness Mahon and several others.

Index 5-1: Top Ten Shipping Banks And There Portfolio – \$bn: 2005

Rank	Bank	Portfolio / US \$bn
1	Royal Bank of Scotland	8.099
2	HSH - Nordbank	3.468
3	Deutsche Schiffsbank	3.4
4	Credit Suisse*	1.85
5	Calyon*	1.5
6	Alpha Bank	1.48
7	HSBC	1.17
8	National Bank of Greece	1.14
9	DVB Nedship	1.07
10	DNB	1.067

* market estimate

(Source: Petrofin S.A, 2006)

Ted Petropoulos (Lloyd's Shipping Economist – June, 2004) claims that over the next decade, the number of Far East banks engaged in Greek shipping finance will increase. This will result not only from the growth of such banks within a fast growing region of the world, but also the greater international presence and importance of Greek shipping, coupled with shipowners' interest in newbuildings constructed in Far East yards. We have already seen the entry of Kexim (Korean Export Import Bank) with a single \$75 million loan for local construction. There seems to be little doubt that others will follow.

His Word Is As
Good As His
Bond

The second debt instruments of our analysis are *bonds*. Bonds are debt securities issued by an organization to raise capital for various purposes. From the investor's point of view, when you buy a bond you basically lend your money to the bond issuer who might be a government, a bank, or a company. The issuer, in return, pays the interest and repays the initial investment at a scheduled date in the future or when the bond is called (i.e. "call date"). Bonds are long-term and time consuming arrangements, which are expensive to issue and demand high annual cost and excellent market timing. The two basic relative factors of bonds' value are inflation and interest rates. The most common bond types, which vary in term of risk and reward, are presented in the figure below (figure 5-3).

Figure 5-3: Types of Bonds

Zero - Coupon	Agency	US Government	Corporate	Municipal	High Yield or Junk
---------------	--------	---------------	-----------	-----------	--------------------

(Source: Author, 2006)

The Rate
Weight

Two basic factors of bonds analysis are the credit quality of the companies and governments and their ability to perform their responsibilities in the scheduled time. The issuers are closely monitored by major debt rating agencies like Standard & Poor's rating services, Moody's investor services and Fitch I.B.C.A. These agencies use quantitative tools to analyze an issuer's financial condition and forecast his or her future progress. As a result, they assign the issuer on credit ratings category (index 3-2) based on the issuer's ability to pay his or her debt at the call date.

Index 5-2: Credit Rating Categories

Investment Grade	Moody's		Standard & Poor's		Non - Investment Grade	Moody's		Standard & Poor's	
Highest Quality	Aaa		AAA		Lower Medium Grade	Ba		BB	
High Quality	Aa		AA		Low Grade	B		B	
Upper Medium Grade	A		A		Poor Quality	Caa		CCC	
Medium Grade	Baa		BBB		Most Speculative	Ca		CC	
					In Default	C		D	

(Source: The Bond Market Association, 2005)

Those issuers who may not have the ability to pay interest or the initial investment in the scheduled time (default) according to the agency's opinion are rated below investment grade. For this reason these issuing companies must pay higher interest rates to attract investors to buy their bonds.

In addition, large and strong companies usually rated with high investment grade indicate good performance and minimal risk for investors. In other words, lower rated bonds involve a higher degree of credit risk than investment grade bonds. Clearly, any event that affects a company's future condition may influence the assigned ratings and perhaps revise them.

As a result, companies with a high investment grade may issue a ten year bond with a yield of 6 per cent, while companies with low rates issue the same bond with a yield of 9 per cent to 11 per cent to attract investors (6). These kinds of bonds, which are characterized by high risk and yields, are called *high yield* or *junk bonds*, and in the late 1990s were used to finance a shipping company's investment projects.

My name is
Bond, Junk
Bond !!!

The high yield bonds or junk bonds market was relatively small until 1970s. From the 1970s and on, many companies unable to borrow from the bank started to raise money by offering high yield bonds. This kind of bond represents an expensive and opportunistic kind of borrowing that may be available for a limited period. In the 1990s this market grew rapidly and was issued by companies which were below agencies' investment grade ratings (chart 5-2). For this reason, as mentioned, these companies paid higher interest rates to attract investors to buy their bonds and to compensate them for the risks associated with investing in an organization of lower credit capability.

Junk bonds offer: (a) a higher rate of current income with a high interest rate, especially in periods where market interest rates are weak, and (b) capital appreciation in periods when positive events in the economy (i.e. economic growth, declining interest rates) or in the company (i.e. mergers, improved earnings report) increase junk bond price and priority over stockholders in receiving payment if the company is liquidated (e.g. bankruptcy) (7).

On the other hand, a factor such as business cycle volatility may lead to a default of the initial investment, trading the company's bonds at a very low price, and liquidity may disappear. Rising interest rates can cause bond prices to fall and if a company's credit rating declines, then the bond price may decline as well. In the chart below (chart 5-3), we can see the annual default rates of the junk bonds market from 1980 to 1999.

Greek
Bonds

Many Greek shipping companies in the 1990s used this method to raise capital by issuing junk bonds in the United States of America capital market. Around the second half of 1997, and throughout 1998, there were approximately twenty issues of high yield shipping debt. With the exception of Eletson Corporation, which raised \$140 million with a 9,25 per cent coupon, this experiment in raising capital proved unsuccessful. Almost all the Greek shipping companies that raised funds in the US market defaulted on their obligations, and bonds were negotiated at considerable discounts leaving investors dissatisfied.

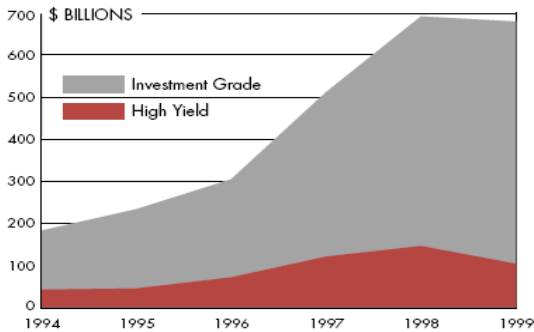
Eletson

Eletson Corporation redeemed its junk bond issued in 1988, two years before maturity. The loan to finance the buy-back was arranged by Citibank. This deal enabled Eletson Corporation to make savings amounting to \$12 million over two years on the interest rate differential between the bond and the new loan.

Alpha
Maritime

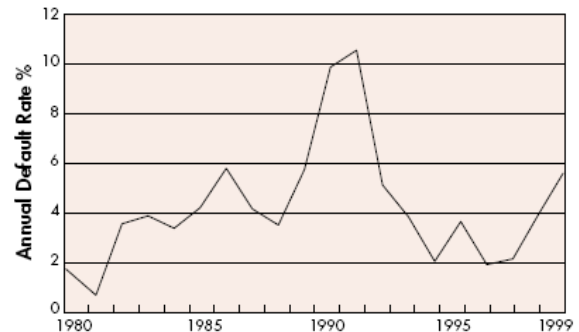
In 1998, Alpha Maritime was able to raise \$175 million with a coupon at 9.625 per cent. One year later Alpha defaulted in interest payment. During the summer of 1999, a complex restructure gave to bondholders \$0.37 on the dollar.

Chart 5-2: Corporate Debt Issuance: 1994-1999



(Source: Thompson Financial Securities Data, 2000)

Chart 5-3: Annual Default Rates: 1980-1999



(Source: Moody's Investors Service, 2000)

Pacific &
Atlantic
Corporation

In 1998, Pacific & Atlantic Corporation, raised \$130 million. The company bought twenty ships from Pateras private company, Pabraco. Later that year, Standard & Poor's downgraded the bond to B rate, as a result of the concerns especially about freight markets. By March, 1999, the bond rated at CCC+. By February 2000, the company had proceeded to a restructuring with most bondholders gaining earnings. Other junk bond issues that ran into difficulties, and were restructured were Global Ocean Carriers, Ermis Maritime and Good Faith Shipping.

Debt or Equity?
It Takes Two To Tango

As you can see in the index below (index 5-3), today we can find a significant number of shipping companies which raised debt by issuing high-yield bonds in the United States of America capital markets. The Index presents some of these shipping companies and we can also recognize the Greek General Maritime.

Index 5-3: High-Yield Shipping Bonds: 2006

Company	Description	Coupon	Maturity	Moody/S&P Ratings
American Commercial Lines	Sr Notes	9,50%	2/15/2015	B3/B-
CP Ships	Sr Notes	10,38%	7/15/2012	Ba3/BB+
General Maritime	Sr Notes	10,00%	3/15/2013	B1/B+
Golden State Petroleum	1st Pfd Mtge Nts	8,04%	1/2/2019	Baa2/BB+
Horizon Lines Holding Corp.	Sr Notes	9,00%	1/11/2012	B3/CCC+
Navigator Gas	1st Pfd Mtge Nts	10,50%	6/30/2007	N/A
OMI	Sr Notes	7,63%	1/12/2013	B1/B+
Overseas Shipholding	Sr Notes	8,25%	3/15/2013	Ba1/BB+
Seabulk International	Sr Notes	9,50%	8/15/2013	B2/B
Sea Containers	Sr Notes	13,00%	1/7/2006	N/A
Teekay Shipping	Sr Notes	8,88%	7/15/2011	Ba2/BB-

(Source: Tradewinds, Jefferies & Company)

The K/G - K/S
Medicine

The *Kommandittelskapet* and *Kommandittgesellschaft* sectors, commonly known as *Norwegian K/S* and *German K/G* respectively, are private equity fund systems with remarkable contributions to financial shipping investment projects.

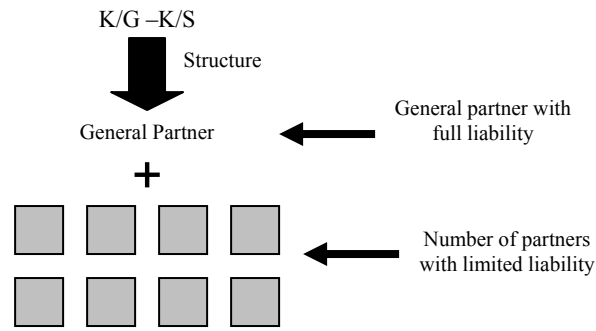
These limited partnership companies, which invest in very expensive assets like real estate and ships and have the ability to contract greater loans with banks than an individual investor or a shipping company. These are created by a general partner which could be a corporate body that carries full liability and a number of partners (in most of the cases ten to twenty five) that carry limited liability. These partners tend to be a mix of institutional, corporate, and private investment companies (figure 5-4).

K/S Sector

During the 1980s, substantial amounts of partnership capital were raised through the Norwegian K/S limited partnership, which supported the Norwegian shipping industry (8). Moreover, the high turnover of the K/S deals had a major impact on the ship loan portfolios of the Norwegian commercial banks, which were the major lenders to K/S partnerships, and on the international sale and purchase market, where demand from K/S buyers undoubtedly drove second-hand vessel prices up more sharply than would otherwise have been the case (9).

The flexibility and the 100 per cent finance offered by the K/S sector allowed many investors to become involved in shipping and achieve spectacular returns especially after 1986-1987 when the vessels prices were fluctuated in high levels.

Figure 5-4: K/G – K/S Structure



(Source: Author, 2006)

None the less, in such volatile environment easy profits can not continue indefinite and the deals made in the 1990s were very small mostly due to a series of losses that marred K/S's reputation. An approximate index for the rise and fall of the K/S sector in the years between 1987-1991 is the profit record of the Finanshuset, one of the most active financial intermediaries in the market. Finanshuset profits rose from N Kr 23,2 million in 1987 to N Kr 60,1 million in 1988 and N Kr 168 million in 1989, before slumping to a loss of N Kr 15,4 million in 1990 (10). K/S sector came to life again in 2003 with the rise of the shipping market.

The basic advantage of K/S compared to K/G is that in most of the cases, K/S offers a tax advantage. K/G is tax-driven, with tax based on tonnage rather than on a ship's profitability. K/S supporters also assert that in a transaction, banks will normally lend only 60 per cent or 70 per cent of a vessel's price when a K/G is involved, but may lend up to 90 percent when a K/S is involved (11). In 2004 around thirty-six shipping projects were concluded within the K/S system with a total value \$1, 2 billion.

Data

A Norwegian K/S company, employing a Greek ship manager, purchased two 2.900 TEU (twenty equivalent units) vessels built in 1990 for \$65 million each to be leased to French carrier CMA CGM at rates above \$20.000 US per day for five years.

KG Sector

The K/G sector became a force in ship finance during the 1990s when \$1 billion was raised and invested in shipping projects. The container shipping market has benefited over the past years from the K/G sector and “doctors” money, when shipping companies were able to invest in new tonnage, raised 100 per cent of the capital needed for a ship acquisition, and pay down their debts. K/G is responsible for more than \$2 billion in 2003 and \$3,56 billion in 2005 within the shipping industry. Most analysts believe that K/G sector will not have a future in its present form because it constitutes a very expensive deal (12).

Data

Two Chinese built Aframax tankers, build in 1999 and 2000, were purchased by a K/G company for \$59,5 and \$62 million respectively and placed on a five year charter to Maersk at \$24,500 per day. The K/G will be capitalized with €115,7 million of which €44,2 million will be acquired as equity and €66,5 million as debt will come in from a German ship mortgage bank. These calculations use a residual value of \$5 million per vessel in 2022 when the vessels would be sold.

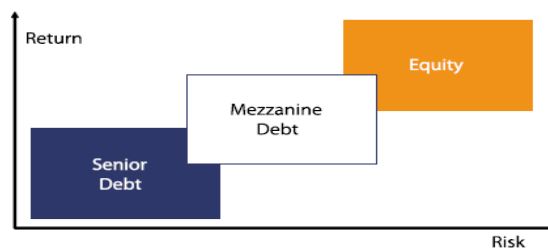
Filling
The Gap

Mezzanine debt or “bridge” finance has always been an important tool in financing growing companies, although it is not widely used in shipping. As its name implies, mezzanine is used whenever there is a financial gap between debt and equity. As a result, this method constitutes some of these two traditional financial method’s basic characteristics and balances between them in the risk and reward arena (figure 5-5).

Mezzanine vs.
Venture

Mezzanine financing is structured as a high yielding loan transaction with an interest rate and a spread often at several percentage points above LIBOR (2 per cent - 2,5 per cent) and a warrant to buy a number of a company’s shares (“equity kicker”). This is the basic difference between mezzanine finance and venture capital.

Figure 5-5: Risk & Return Characteristics



(Source: Prudential Real Estate Investors, 2005)

Venture capital is provided by outside investors in the form of “direct” investment in new and struggling companies in their early stage of growth. This kind of finance is a high risk investment and may offer significant returns like mezzanine finance.

The main difference between these two different forms of finance is that in the case of mezzanine finance, the bank provides the capital for the company and if at a later time the company’s progress is of high interest, the bank decides to exercise the warrant of buying the company’s shares and furthermore operates as an investor in the company. In the case of venture capital the investors or the bank in this case, “predicts” the company’s progress and proceed to a direct investment in the company in the form of providing finance in stages.

Mezzanine providers are in a sense both lenders and investors. As lenders, they are concerned about the company’s cash flow or about high interest rates. As equity investors, they are equally interested in the company’s ability to achieve satisfied results and create value for its shareholders. The biggest benefits mezzanine finance provides is that it can reduce the amount of equity required in a transaction, which can then be spread onto other activities, thus lowering the cost of capital (13), as interest payments on mezzanine debt are tax deductible.

The basic difficulty in using this method in the shipping industry is the necessity for a shipping company to be capable of providing a strong cash flow and substantial returns on invested capital in order to cover both the senior and the intermediary debt in a volatile environment, with the vessels facing significant insurance, dry docking and repair costs. A number of financial companies specialize in this method of finance, which requires a personal touch and a long-standing relationship with the shipping companies, something that constitutes a fundamental barrier for big banks as a result of lack of time for its officers who move from department to department in a given period of time.

From the establishment of the United States Leasing Corporation (U.S.L.C) in 1952 by Henry Schoenfeld (14), the modern form of leasing grew rapidly and spread all over the world. The assets that most commonly used to be financed using the leasing method are buildings, equipment, cars, and ships.

Leasing constitutes one of the most flexible financial instruments. In general terms, a leasing transaction includes the acquisition of an asset from a financial institution (lessor) and the lease of this asset to a company (lessee) on the basis of a long term contract.

The *lessor* has ownership over assets and the *lessee* pays, for the contract period, a rent to use the asset as though it were the lessee’s own. In some cases, at the end of the contract period, the lessee has the option after defrayment of an agreed payment (“balloon” payment) to buy the asset that can be transmitted to the lessee ownership. The most common types of leasing method are presented in the figure below (figure 5-6).

Figure 5-6: Types of Leasing



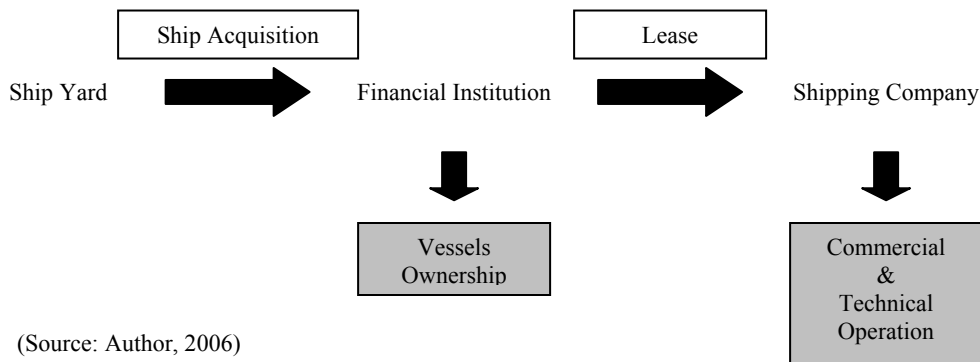
(Source: Author, 2006)

Leasing has many applications in the shipping industry and constitutes a customer friendly method to finance shipping projects like a newbuilding vessel acquisition. The financial institutions, which in most cases are a bank or group of banks, can buy the vessel from the shipyard, make all the pre-delivery payments and then lease it under a long-term arrangement on a bare boat charter, to the shipowner.

Flexible
Transaction

The financial institution has the vessel’s ownership for the entire contract period and the shipping company, which pays a rent for the vessel’s use, is responsible for its commercial and technical operation. In other words, the shipping company takes all the risk and liabilities in a leasing transaction (15). At the end of the contract period or the charter, the shipping company may have the option to purchase the vessel by defrayment of a “balloon” payment by the financial institution (figure 5-7).

Figure 5-7: Ship Lease Transaction



(Source: Author, 2006)

Pros

Leasing method can offer 100 per cent finance to the shipping company. As a result, there is no need for the shipowner to pay part of the capital for the ship acquisition (e.g. 20 per cent to 40 per cent in the case of bank lending) but he can use it to finance other investments or for an alternative use. Moreover, leasing can offer 100 per cent finance without any requirement for additional security in the form of mortgages on other ships in a company's fleet (16) and provides for longer term finance ("big ticket"). The first rent to the financial institution from the shipping company for the vessel's operation would normally be due upon delivery of the vessel with the lease period in some cases extends about ten years.

The shipping company has many benefits using the leasing method in countries that do not make shipping companies exempt from tax regimes something that permits cost advantages and tax allowances for the shipping company compared with other finance methods. In some cases the rent that the company pays does not appear on the balance sheet and as a result, shipping companies do not face problems with their debt accounts and their borrowing power. In other words, in many countries leasing constitutes an "off balance sheet" form of financing (17).

Cons

On the other hand, the fact that the shipping company does not have the vessel's ownership constitutes a basic problem for the company compared to direct ownership. The financial institution can sell the vessel at any time after the contract's initial period (e.g. four or five years) has elapsed. As a result the shipping company can not take advantage of the market and sell the vessel when the prices are high or use it as security in the case of bank lending. Moreover, tax allowances are also not allowed in every country and the tax regime of every country could change at anytime in the future (18).

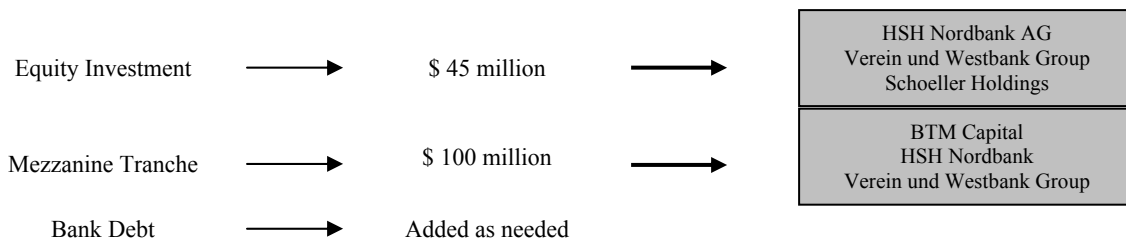
Financial
Leasing

The most common forms of leasing in the shipping industry are financial leasing and the sale and lease back method. Financial leasing is a long term arrangement that covers a substantial part of the asset's life and leaves the ownership to the leasing company (lessor) and all the operating responsibilities to the shipowner who in the event of early termination must fully compensate the lessor (19). The period of the lease will usually be in excess of ten years, since the lessor accepts that the period of the lease transaction must reflect the lessee's ability to earn money on the asset concerned (20).

Data

Bermuda based FSL (First Ship Lease) is a financial institution that deals with ship leasing. Its financial base consists of \$45 million of equity from a group of German banks, \$100 million Mezzanine layer by B.T.M Capital, and a group of German banks with bank debt added as needed (figure 5-8). In 2004, James Fischer & Sons announced that a pair of small 5.000 dwt clean product tankers for delivery in early 2006. In this transaction, FSL retains ownership rights to the vessels that are leased to the shipping company with a ten year bare boat charter while charters have the operational control of the vessels.

Figure 5-8: F.S.L Financial Base: 2005

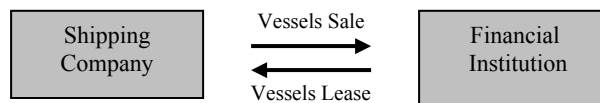


(Source: bdp1 Consultant L.T.D, 2005)

Sale and Lease Back

How can one extract value from appreciated assets while still retaining the control of one's own fleet? The answer is *sale* and *lease* them back. This type of leasing finance has many applications in the shipping industry. A sale and lease back transaction requires that a vessel is sold from the shipping company to a financial institution, which relets it back for a period of time (figure 5-9). This method pumps money into the shipping company, which can use this method to cover its financial obligations, improve its liquidity, and rearrange the balance sheet or invest in a new project while enjoying the leasing transaction's benefits.

Figure 5-9: Sale & Lease Back Transaction



(Source: Author, 2006)

Debt or Equity?
It Takes Two To Tango

In March 2006, Top Tankers (NASDAQ ticker “TOPT”) arranged a sale and lease back transaction for thirteen vessels. As you can see in the Index below the proceeds were used for debt repayment and expenses, seller’s credit, working capital and dividend defray (index 3-4).

Index 5-4: Top Tankers Sale & Lease Back Transaction: 2006

Sale and Lease Back of 13 Vessels:	\$550 million
<u>Proceeds:</u>	
Debt Repayment & Expenses:	\$255 million
Seller's Credit:	\$55 million
Working Capital:	\$30 million
Dividend:	\$210 million (\$7,50 per share)
Total:	\$550 million

(Source: Top Tankers Inc., 2006)

C O N C L U S I O N

It is an indisputable fact that shipping finance constitutes a very interesting sector of the shipping industry that has taken on special importance in recent years as a result of the significant amounts of capital which a vessel's acquisition requires.

As a result, shipping finance demands a very detailed examinations and careful movements from the market players. This chapter examined a focal analysis to the steps that a shipowner should take into consideration and accomplish before taking the decision and buy a vessel.

Both the market condition and the shipping company's cash flow expectations play an important role in the analysis. The last factor influences not only the shipowners' decisions but also the decisions of all the prospective lenders and investors.

If the market is strong it gives shipowners the green light to invest and expand their fleet. The next step for a shipping company is the selection of the appropriate financial method for the shipping company. Shipowners have several alternative methods which they can use to finance an investment project. Four different forms of shipping finance were examined in this part: Debt, Equity, Mezzanine and Leasing.

In the next part we will focus on its shipping finance analysis on two major finance methods of a shipping company: Debt and Equity with Syndicated Loan transaction as Debt instrument and Initial Public Offering (IPO) as Equity instrument. These will be examined in detail, as well as which of these methods the company will prefer with regard to when and why.

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12. *Fairplay Magazine*, 2 March 2006 – Issue 6368, page 4.
13. David Rees – Mirvac Group Limited, *Mezzanine Debt and Property Investment*, January 2006, page 4.
14. In 1952 a small neighborhood grocery market in San Francisco needed to replace a food cooler. The owner of the market applied for a loan in a bank. He asked that the loan be payable in installments over three years instead of on a demand note, as was customary in bank lending at the time. He also offered to grant a lien against the food cooler in favor of the bank. Bank turned him down. Shortly thereafter he was talking with one of his regular and best customers and told him about his recent disappointing experience, the customer, decided to buy the food cooler and lease it to the grocery. For that reason he formed a company to accomplish the lease (Stanley A. Evans, Jr. - Executive Solutions for Leasing and Finance, Inc).
15. J. E. Sloggett, *Shipping Finance*, Fairplay Publications, United Kingdom 1998, page 73.
16. Peter Stokes, *Ship Finance: Credit Expansion and the Boom-Bust Cycle*, Lloyd's Of London Press LTD, Great Britain 1992, page 128.
17. J. E. Sloggett, *Shipping Finance*, Fairplay Publications, United Kingdom 1998, page 74.
18. Martin Stopford, *Maritime Economics*, Routledge, Great Britain 1997, page 218.
19. Martin Stopford, *Maritime Economics*, Routledge, Great Britain 1997, page 218.
20. Peter Stokes, *Ship Finance: Credit Expansion and the Boom-Bust Cycle*, Lloyd's Of London Press LTD, Great Britain 1992, page 128.

Empirical Part

Part Three

What you are is what you get...

3

What You Are Is What You Get...

“You young pipe dreamer, why throw away your ten years’ experience of learning the rules of the game? Why give the public all the facts regarding the corporations for the price of a book? You will be showing them how to play safe and get rich, while you will make nothing yourself. Anyway, if you begin to flaunt too many facts, there won’t be much inside knowledge left to work on; you will be spoiling our game. Use your information yourself; don’t be a philanthropist. There’s no money in it!”

John Moody

CHAPTER 6

To Syndicate or not to Syndicate?

Definition

Syndicated loan constitutes one of the most flexible financial debt instruments and a basic finance practice for the shipping company’s investments. The basic purpose of a syndicated loan transaction, or asset “distribution” method, as it is called (1), is the finance of a high value investment project from two or more banks in the case that the borrowing funds of a single bank cannot be enough to finance the whole project. In other words, when the loan is arranged as syndicate, the funds are jointly provided by two or more banks under the same credit facility. The duration of a syndicated loan usually fluctuates between three and ten years, although transactions can be arranged with a maturity as short as six months or as long as twenty-five years (Rhodes, 1996). Large syndicated loans might include upwards of twenty banks from a number of countries (2).

Mr. Eddie George, governor of the Bank of England, mentioned that readers of Tony Rhodes' book will reach their own conclusions as to whether the retrenchment of syndicated lending activity in the past years represents the beginning of a long term contraction or, as in the past, simply a pause in an expansionary trend. Syndicated loans will remain a very important technique for meeting the credit needs of large borrowers. But the confidence of those lenders and borrowers has been damaged by recent experiences and the scale of the syndicated loans market's future activity will depend to a substantial extent on how successfully its participants absorb the lessons of the past (3).

Each participant bank in a syndicated loan transaction has a separate claim to the borrower and as a result, the credit risk is spread between various lenders under a single loan agreement with the same terms and conditions for all the participants. As Hitchings (1994) noted, "... it is fundamental to syndicated lending that the terms and conditions of the loan are similar for each of the lenders".

We can distinguish two basic credit groups in a syndicated loan transaction. First, there is the bank or a group of banks (known as "co-leads") that are responsible for structuring (e.g. the negotiation of terms and conditions), funding, underwriting and marketing the loan to other participants. These banks are usually known as arrangers or leader banks or mandate lead arranger (MLA) and in many cases retain the larger share of the loan. The leader bank or one bank from the leader team may also act as an administrator or intermediary between borrower and participant banks after the signing of the loan contract and during the loan life. The second group of the syndication constitutes from the participant lenders (or banks in our case) that will provide funds for the loan and will finance the investment project.

Between 1967-1973 the syndication market grew rapidly and made a spectacular entry in the shipping industry. Tanker values in that period were fluctuated in high levels and most of the banks were unavailable to provide the capital needed to the shipping companies. As a result, every American bank that set up shop in London claimed to have a shipping department and huge syndications were put together over the phone with very few questions asked and with spreads rate follow the banking competition (4).

The basic purpose of a syndicated loan in the case of the shipping industry is the finance of two or more vessel acquisitions. This finance method has an important presentation in the shipping industry and in the Greek market place with both Tsakos Energy Navigation and product specialist Eletson playing a leading role.

Data

Tsakos has been busy putting term financing in place, to the tune of nearly \$300 million, taking advantage of low rates with institutions reportedly including the Commercial Bank of Greece, the Royal Bank of Scotland, and the Deutsche Schiffbank. Other syndicated transactions have included JP Morgan Chase Bank, leading a big group advancing \$200 million to Papachristidis Hellespont, which has taken delivery of four secondhand tanker vessels in 2003. The basic terms of this syndicate loan facility agreement are present in the Appendix III of this Thesis.

As evident in index below (index 6-1), Citibank continues its leading role in syndicated transactions for 2004 and 2005 in the shipping industry with banks like Aegean Baltic, Deutsche Schiffbank, ABN, DVB Nedship, and HSH Nordbank closing the first top ten.

Index 6-1: Leader Banks: 2004 - 2005

Leaders 2005	US \$ ml	Leaders 2004	US \$ ml
Citibank	2165	Citibank	1475
Aegean Baltic	1153	Aegean Baltic	855
Credit Suisse	800	Deutsche Schiffsbank	750
Deutsche Schiffsbank	600	ABN	300
Fortis Bank	400	DVB Nedship	248
ABN	320	HSH Nordbank	223,08
Bank of Scotland	305	Nordea	218
DVB Nedship	285	HVB	171
HSH Nordbank	218	Commerzbank	131
Commerzbank	171	Piraeus Bank	124,5
Nordea	160	Alpha Bank	120
HVB	120	Fortis Bank	115
DNB	90	DNB	95
Bremer Landesbank	84,4	KFW	92,95
Alpha Bank	80	EFG Eurobank	92,6
HSBC	70	Calyon	80
EFG Eurobank	46,7	BNP Paribas	32
National Bank of Greece	40	First Business Bank	23,2
KFW	39,84	Bremer Landesbank	9,275
BNP Paribas	35	Laiki Bank	4,475
First Business Bank	33,53		
Aspis Bank	17		
Emporiki Bank of Greece	10		
Grand Total	7243,5		5160,1

(Source: Petrofin S.A, 2006)

6.1 Countdown

In this section we will examine the basic steps (index 6-2) of a syndicated loan transaction. We can identify four basic steps: the *first touch*, the *inquisition*, the *suitors* and the *marriage*. Each of these steps is comprised of different conditions and events that will influence the syndicated lending process.

Index 6-2: Syndicated Loan Basic Steps

<u>Step</u>	<u>Description</u>
<u>First Touch</u>	The shipowners meet the banks managers and negotiate the basic terms and conditions of the transaction.
<u>Inquisition</u>	Banks managers examine industries condition and companies' position and perspectives in the market.
<u>Suitors</u>	Banks manager seeking for potential investors by marketing the loan to the market.
<u>Marriage</u>	The signing of the loan contract.

(Source: Author, 2006)

(1) "First Touch" First touch is the first step of a syndicated loan transaction analysis. At this stage, after examining the market condition and given company's position and perspective in the market, the shipowners make the decision to expand their fleet. For their reason, shipowners visit a bank which they choose and then negotiate the basic terms and conditions (i.e. amount, fees, collateral, covenants, etc.) of a syndicate loan facility with the bank's managers.

The shipowner should carefully examine the terms and conditions of the loan while negotiating with the bank's managers to ensure that the he can face his responsibilities. If the shipowner proves unsuccessful in fulfilling one of these requirements and before the raise of the agreed amount, the bank will proceed to cancel or change the terms and conditions of the loan facility.

The selection of the MLA (mandate lead arranger) bank or “leader bank” by the shipowner is based on two simple factors. The first is the *relationship* between the bank and the shipping company (which influences both sides) and the second is the *leading history* of a bank in the past.

It is an undisputable fact that the past credit relationship performance affects the shipowner’s decision about the bank that he will choose to arrange the transaction. Moreover, if a bank is recognized for its quality and ability to monitor, arrange and administrate a borrower’s investment projects, this situation will urge a shipowner to visit and trust such a bank regarding the whole transaction. In other words, the reputation of the bank as arranger in past transactions constitutes a basic factor in the selection of the bank as leader. Moreover, leader arrangers are more likely to syndicate loans when the loan is large, the borrowing firm is public, and the lead arranger has a strong reputation (Dennis and Mullineaux, 2000).

On the other hand, a shipowner’s profile, experience, track record, and relationship with the bank as mentioned before, are some of the basic characteristics that a bank’s managers will examine before making the decision to negotiate the basic terms of a syndicated loan with a shipowner.

After the negotiation of the loan’s basic terms the leader bank moves to the next step of the syndication transaction process. The basic purpose of the leader bank in the *inquisition* step is to examine a company’s and the market’s condition (index 6-3).

Banks hate taking unknown risks; thus, they want to secure the return of the capital that they borrow plus the interest rate they charge for the use of that capital in the agreed period (i.e. credit risk). Credit risk will be, in most cases, visibly expressed by an independent credit rating agency like Standard & Poor’s as mentioned in previous chapter and is based on the shipping company’s financial condition and perspectives in the market, cash flow expectations, and the industry’s condition.

According to Professor Grammenos of the International Center for Shipping, Trade and Finance, of London City University Business School, sound banking credit analysis should be based on the five C’s: *character, capacity, capital, collateral* and *condition*.

(2)
“The
Inquisition”

Index 6-3: The Inquisition Step

<u>Examination of:</u>	<u>Variables</u>
<u>Market</u>	Freight Rate Season of the Shipping Cycle
<u>Shipping company</u>	Track Record Cash Flow Management Shipowners Personal Wealth

(Source: Author, 2006)

Not surprisingly, shipping industry presents particular challenges for banks due to the high investment that a ship acquisition demands and the cyclical nature of freights and revenue. In general terms, banks love stability of earnings and long term charters compared to spot employment for the company's vessels. A medium term time charter equal to loan period with stable or increasing earnings for the shipping company for all the charter period offers the bank more safety (hedging) than the volatile earnings of the vessel in the spot market. Some major fleets have been built up on the basis of vessels built to service long-term charters that have been used as collateral to obtain the necessary finance (5).

Moreover, Mr. Lunde of DVB suggests that "banks may view larger companies as less risky due to their presence in multiple markets. A small tanker owner (one or two ships) might have very conservative accounting, excellent disclosure, and a first class operating style, but what if that entire sector takes a prolonged downturn?"

Clearly, the shipping company's ability to generate cash from its operations constitutes the basic factor that banks examine before making the decision to supply the necessary capital to the shipping company. Cash flow performance in other words is the key for banks that will use it to open the company's door and see its long term prospects grow (cash flow financing).

By all means, time charter is not a perfect security for banks, as it does not constitute an asset that the bank can seize in the case that the shipowner cannot fulfill his or her responsibilities and the vessel's operating cost does not stay stable for the entire charter period, something that will reflect the company's net earnings (6). As Peter Stokes mentioned, charter does not represent security since it is not an asset that can be seized. It is merely an indication of income to be earned (7).

In its March 2006 report on key rating factors for shipping companies, Standard & Poor's, indicated that the shipping industry's risk profile is generally considered in speculative grade and that relatively few shipping rating upgrades have occurred over the past few years, despite the exceptionally strong market conditions experienced. That is not to say that ratings on shipping companies cannot be investment grade, the report continues.

Nevertheless, the inherent caution of the rating process, where companies themselves are paying for the ratings, is evident by the fact that only eleven companies, slightly more than one-third of the rated maritime world, have garnered investment grade ratings, the report indicated. Teekay Shipping, for example, upgraded its credit rating in late 2005 by way of the improved cash flow of the company and the fact that it managed to pay down its debts, a key factor in the improvement of its financial profile.

Underwriting
Deal

If the bank managers are sure that the loan can be placed in the market, they will consent to underwrite the loan. In the case of an underwriting deal, the shipowner agrees with the leader bank to raise a specific amount of capital on specific terms and finance an investment plan. The bank then guarantees the entire transaction and syndicates the loan in the market. This kind of deal constitutes a very risky transaction, which is reflected by high underwriting fees that the banks charge the shipowners. The risk that the banks face in this type of syndication is derived from the fact that in some cases banks cannot fully subscribe the loan.

As a result, they must fill the difference or the finance gap from their own resources and later try to sell this difference to investors in accordance with the loan's specific terms. If the shipping market is strong, this situation may be over very quickly for the banks. On the other hand, if the market is weak, banks may be forced to sell the difference at a discount price and thus incur losses.

Best Effort
Deal

In addition, bank managers may ride to a "best effort" deal. In this case the shipowner agrees to raise a specific amount of capital on specific terms and the bank guarantees the entire transaction. The main difference between the underwriting and "best effort" deal is that in the last type of syndication the leader bank does not underwrite the loan. The leader bank tries to syndicate the loan to the market but if the leader bank does not succeed in raising the agreed amount of capital, then the borrower will not receive the loan or he will accept the raised amount.

Club Deal

Another type of syndication is the “club deal”. In this syndication type the value of the loan fluctuates between \$25 million and \$150 million. Over the past three years, over one third of deals were arranged as so-called “club” deals, in which the syndicate usually consisted of only a handful of banks and the borrower may have taken on the job of arranging the loan itself (8).

After the negotiations and the market and company’s examination, the leader bank prepares all the documentation and receives from the shipowner a *mandate* or *preliminary* loan agreement that allows the syndication to take place and indicates an acceptance of the terms and conditions of the loan.

(3)
“The
Suitors”

The next step for the leader bank is trying to find potential syndicate members or suitors who will partly fund the loan (i.e. bookrunner). In the suitors step, the leader bank will first prepare an information memorandum (IM) or bank book that simply includes an executive summary of the transaction, the list of terms and conditions, the shipping industry’s overview, and the shipping company’s perspectives and financial condition.

This confidential memorandum is shared to the interested financial institutions and the recipients must then sign a statement that they have received the memorandum and will discuss with the leader bank the terms of the loan. Clearly the information that this book contains is very important for the prospective syndicated banks and influences their final decision. This is why such information must be accurate and complete. The leader bank’s interest in booking the loan to obtain the prestige and management fees encourages it to comply with the borrower’s demands while seeking to keep the loan attractive for banks that are considering becoming participants (9).

In May 1976, several American regional banks with negligible knowledge of the shipping industry that had been participating in syndicated loans to the Colocotronis shipping group built up by the Greek entrepreneur Minos Colocotronis, filed suit against the European-American Banking Corporation the leader bank of the facility, for \$7,6 million. The complaints alleged that the lead bank induced the American banks to lend millions of dollars by making untrue and incomplete representations about the management, operations, and financial condition of the Colocotronis group. A central issue in this litigation concerned the grounds upon which a lead bank may be held liable to other participating lenders for misstating or failing to disclose information relevant to an analysis of a borrower’s financial condition (10).

(4)
"The
Marriage"

If the potential participants agree to fund part of the loan, then the loan agreement is signed. In the marriage step, each party agrees to the basic terms and conditions of the loan and the transaction is made complete. The successful conclusion of arrangements for a large syndicate loan is often marked by the publication in the finance press of "tombstones" (i.e. advertisements) detailing the borrower, the details of the loan and the list of lenders (11).

6.2 Terminology

In this section we will examine the basic and most interesting terms and conditions of a syndicated loan transaction. First of all, when structuring the loan, the usual practice for the shipowner is to establish a one-ship company for each vessel as security for the lenders who lend to a shipping company with no assets other than the ship and its earnings (12). In other words, the first basic term of a syndicate loan facility agreement is the *corporate guarantor*.

MLA

The MLA or *mandate lead arranger* refers to the bank or banks that are responsible for structuring the loan facility, including negotiating the pricing, terms and conditions. In most cases the mandate lead arrangers are the banks that provide the biggest part of the funds in the facility. The rest of the participants with a lower share in the facility often characterized as senior lead managers or lead managers or simply participants. Each one of these categories is based on the share of each bank in the facility as long as these banks are considered "superior" over the participation of other banks in the facility.

Agent

The *facility agent* is the bank or banks that are responsible for the annual handling of the loan, from the signing of the loan agreement until the end of the loan life. In most cases the mandate lead arranger is also the facility agent in a loan agreement.

Repayment

The *repayment* refers to the way that this loan will be repaid. This situation depends on the type of the syndication loan. Most commonly used is the term loan (i.e. amortizing or institutional for non-bank institutional investors), which is a simple loan where its repayment is based on scheduled installments for a period of time. If the borrower prefers, he or she can afford to pay a balloon payment or a one lump-sum (i.e. "bullet") payment at maturity.

On the other hand, a revolving loan facility (RLF) or “recycling” loan provides the necessary capital to companies for a start-up or expansion. The main difference between the term loan facility and the fixed number of payments as described before is that in the case of the revolving loan, when the company repays a part of the loan, it is generally returned directly to the company in the form of a new loan.

Pricing

A very interesting subject in a syndicate loan transaction, which demands experience and is basically based on the bank’s financial analysis, is the pricing of the syndicate loan. We can discriminate two basic pricing instruments in a S.L transaction: (a) *interest rate* and (b) *fees*. These instruments constitute the basic components of the true economic cost that the shipping company has to pay for the syndication.

Interest Rates

Syndicated loans are generally priced as an interest rate spread above a floating reference rate such as the *prime floating* rate or LIBOR (London interbank offered rate). In the case of the prime floating rate, borrowed funds are priced at a spread over the reference bank’s prime lending rate. The rate is reset daily and borrowers may be repaid at any time without penalty. This is typically an overnight option, because the prime option is more costly to the borrower than LIBOR (13).

In the case of LIBOR, the interest on borrowings is set at a spread over LIBOR for a period of one month to one year as agreed with the shipowner. This kind of loan pricing has been examined by various market analysts (Kamin and Von Kleist, 1999) and constitutes a pricing instrument for interest rates that is most commonly used in the shipping industry. Usually banks use a six month LIBOR and the spread ranges between 0.5 per cent and 2.0 per cent. The borrower of such a loan can change the period no less than about two working days before the end of a period. Thus if the borrower considers rates will fall, he or she can shorten the period, but if he or she expects rates to rise, he or she can lengthen the period (14).

These spreads, which may be fixed for the term of the loan or may be linked to certain corporate events (e.g. company’s profitability), will mainly depend on the credit risk of the lenders, the terms of the loan, and may also vary with the general demand and supply conditions in the market. For example, a strong increase in the supply of loans by banks is said to have contributed to a decrease in spreads as a result of the strong competition between banks. The index below (index 6-4) presents some basic variables that may influence the spread that banks charge for the loan transaction.

Index 6-4: Variables Affecting Spreads

<u>Variables</u>	<u>Examination</u>	<u>Condition</u>	<u>Spread</u>	<u>Comments</u>
Market Condition	Freight Rates	↑	↓	A strong market decreases banks risks.
Credit Risk	Shipowners reputation, track record and profitability	↑	↓	Shipowners characteristics influence banks decisions.
Terms	Covenants - Collateral	↑	↓	Higher collaterals reduce risk for banks and spreads for the shipping companies.
	Duration	↑	↑	Loans of longer duration have a greater risk and higher spreads.
	Balloon Payment	↑	↑	Large balloon payments increase spreads due to an increase in risk.
Competition	Banks	↑	↓	Competitions among banks reduce spreads and attract clients.

(Source: Author, 2006)

In 2005, one financier declared to Fairplay magazine (June 9, 2005) that ship finance has become a high-risk, low-return activity for banks. We had in this period a significant decrease in spreads because of increased banking competition (some ten or fifteen players), higher owner liquidity and greater credit-worthiness among other things.

Andonis Zolotas of Eurofin, the corporate finance house, in the same magazine mentioned that this fall has been dramatic. A deal is closed at 1.05 per cent over the LIBOR and after six months the same client asked for and received 0.8 per cent. Bote de Vries, DVB Bank's investment manager, declared in 2005 that it is virtually unbelievable that the banks are fighting for deals when the risk is the highest and the spreads are the lowest.

The second pricing instruments of a syndicated loan are fees. The syndicated banks receive various fees (index 6-5) that depend mostly on the bank's role in the transaction as an arranger, underwriter or participant (Allen 1990, Rhodes 1996).

Fees

Index 6-5: Type of Fees

<u>Fee</u>	<u>Comments</u>	<u>Type</u>
<u>Arrangement or Praecipium</u>	Collected from the Leader or Arranger bank(s) in return for the deal and documentation preparation.	<i>Up-Front</i>
<u>Underwriting</u>	Collected from the Underwriters in return for guaranteeing the availability of funds.	<i>Up-Front</i>
<u>Administrative or Agent's</u>	Collected from the Agent bank(s) in return for the annual handling of the loan.	<i>Per Annum or Up-Front</i>
<u>Participation</u>	Collected from the Participant banks in return of there participation in the loan transaction.	<i>Up-Front</i>
<u>Commitment or Facility</u>	Collected form the Participant banks in return of holding available funds until the borrower needed them.	<i>Up-Front or or Per Annum</i>
<u>Prepayment</u>	Collected from the Participant banks in return of the borrowers prepayment of there debt.	<i>Up-Front</i>

(Source: Author, 2006)

First of all the leader bank(s) in a syndicated loan transaction generally earns a fee known as an *arrangement* or a *praecipium* fee. This fee is collected at the beginning of a deal from the leader bank(s) in return for the preparation of the deal and for the drawing of the documentation.

The underwriters similarly earn an *underwriting* fee for guaranteeing the availability of funds. This fee is payable when the loan is signed from the participants and is based on the amount of the underwriting commitment of each participant bank.

The agent bank(s) generally earns a fee in exchange for the annual handling of the loan (e.g. interest payments to the syndicated banks and funds management). In most cases the agent is the leader bank if the transaction and the fee is collected at the beginning of every year until the maturity day of the loan and is called the *administrative* or *agent's* fee.

The group of banks that participate in a syndicated loan transaction and are exposed to credit risk, collect a fee with the signing of the loan agreement for their participation in the loan. The size of this fee depends on the size of their commitment and is collected until the end of the loan's lifetime.

The banks also collect a fee as a result of the funds that they must hold until the signing of the contract and the transfer of these funds to the shipping company. In other words, once the credit is established and as long as it is not drawn, the syndicate members often receive an annual *commitment* or *facility* fee proportional to their commitment (15).

Loan documents sometimes incorporate a penalty clause whereby the borrower agrees to pay a *prepayment* fee or otherwise compensates the lenders in the event that he prepays his debt.

Moreover, if shipowners for some reason decide to cancel the agreement, they have to notify the leader bank. In most cases, the *cancellation* term in the agreement gives shipowners the opportunity to cancel the deal in a reasonable time after signing the loan contract. If they decide to cancel the deal after this period they may face a penalty for this situation.

In addition to interest rates and fees, there are various non-pricing instruments attached to syndicated loans known as *collateral* and *covenants*.

Collateral

One vital aspect of loans is the security or collateral that must be provided to the lender by the borrower so that the former may be satisfied that he or she will be able to recover the sum lent in the case that the borrower defaults (16). Collateral may include a *first preferred mortgage* on finance ships or others, a *corporate* or *personal guarantee*, and a number of *assignments*.

A *first preferred mortgage* protects lenders and gives them the opportunity to gain an ownership of a vessel in the case that the borrower can not fulfill his or her responsibilities against lenders. As a result, the lender can (a) arrest the vessel, (b) sell the vessel or (c) continue to operate it within the market.

When assessing the security required for a loan on a new vessel, lenders will usually accept a first mortgage on a vessel as being worth 50 per cent or 60 per cent of the contract price provided the vessel is of a type for which there is an established second hand market (e.g. a handy sized bulk carrier) (17).

Another type of collateral is the *guarantee* (corporate or personal) that the lender gives to the banks in a loan transaction. Guarantee is an undertaking given to the bank by the guarantor. Corporate guarantee is usually given by the holding company of the vessels. In the case of a failure the banks claims are confined to the holding company structure, while the shipowner's other business functions continue to operate.

On the other hand, personal guarantees are usually given by the shipowner or by a major shareholder of the shipping company. The application in a syndicated loan transaction of this type of guarantee is very rare.

We can distinguish two basic assignments in a syndicated loan transaction: (a) *earning* and (b) *insurance* assignments.

In the case of the earning assignment, all the assigned earnings of the company's vessels are paid in a bank account (retention account). With this kind of assignment, banks lock in some way a shipping company's earnings and are sure that the earnings of the vessel's operation are first used to repay the loan and the residual for other purposes.

In the case of insurance assignments, all the insurance payments to the borrower in the case of an accident (damage or lost) or in the case of claims from third parties are paid directly to the banks towards the payment of the outstanding debt or the insurance organization requires banks consent before these payments are paid directly to the borrower.

Covenants

A covenant is a very useful risk-reducing instrument for banks which constitute from some basic restrictions or undertakings to the borrowers for the entire loan period. Between risk and covenant there is a positive relationship. The higher the risk banks face, the higher the covenants for a shipping company. We can discriminate three basic types of covenants: *affirmative*, *negative* and *financial* covenants (18).

Affirmative covenants act as a reminder of the responsibilities that a shipping company has and must maintain in order to be in conformity with its operational activities and to the lenders. Covenants of this type are: (a) insurance covenants that include H&M (hull & machinery), war and P&I (protection & indemnity) risks, (b) classification covenants that include that the vessel(s) shall maintain the highest class within a classification society (member of IACS) acceptable to the lender banks and (c) corporate structure covenants, where the borrower must remain a single-purpose company throughout the duration of the facility (index 4-6).

The basic purpose of the negative covenants is to keep shipowners on the “straight road”. These type of covenants limit the activity of shipowners that banks believe may hit a bank’s and a shipowner’s interests, putting the loan transaction in danger. Covenants of this type are: (a) the distribution of dividends, (b) the change of the vessel or vessels management and (c) the restriction of further debt to be incurred by the borrower (index 6-6).

Financial covenants include the flow of information from the shipping company to the banks for its financial condition and its operational activities as well as certain obligations that shipowners should keep in mind until the loan maturity date.

Index 6-6: Type of Covenants

<u>Covenant</u>	<u>Purpose</u>	<u>Type</u>
<u>Affirmative</u>	Remind Shipowners Responsibilities	Classification Society Company Structure Insurance
<u>Negative</u>	Limit Shipowners Activities	Dividends Distribution Vessels Management Debt
<u>Financial</u>	Financial & Operational Information	Liabilities vs Assets Financial Statements Interest Coverage Ratio

(Source: Author, 2006)

Covenants of this type include obligations such as: (a) the shipowner’s obligation to maintain a higher level of current assets (adjusted to market values) than of current liabilities (e.g. liabilities shall not exceed 60 per cent at any time during the tenure of the facility, (b) the presentation of the annual consolidated financial statement of the company and (c) the borrower’s interest coverage ratio defined as earnings before interest, tax, depreciation and amortisation (EBITDA) over interest expense minus interest income shall not be lower than a certain rate at any time during the tenure of the facility (index 6-6).

CHAPTER 7

Identify Prime Opportunities

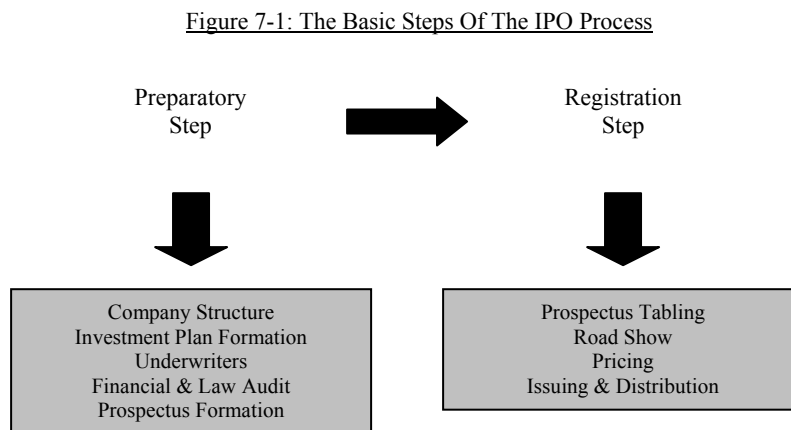
The financial equity instrument presented in this chapter is the *initial public offer* or IPO. An initial public offer is the first time that a private company issues or sells shares to the public, where they can be traded on a national stock exchange. This raising equity method represents a major change in a company's financial policy (i.e. private-public debt) and constitutes a major source of funds for new companies that seek to raise capital from the investment community and finance their investment projects.

In other words, when a company needs additional equity capital, a company may find it desirable to "go public" by selling stock to a large number of diversified investors. Once the stock is publicly traded, an enhanced liquidity allows the company to raise capital and finance its investment projects while shareholders can then sell their shares in open-market transactions.

The process of listing takes approximately three to six months and some companies often start their preparation two to three years in advance. The duration of this process however, will vary according to the complexity and the readiness of the company, market conditions, and the availability of financial information.

At this point the IPO process is divided into two basic stages: (a) the *preparatory* stage and (b) the *registration* stage. Each of these two stages will include a number of activities or steps that will influence the final results of the initial public offer process (figure 7-1).

"The Road
To Hell"



(Source: Author, 2006)

The first step for a shipping company in an initial public offering (IPO) transaction process is the creation of an appropriate corporate and equity *structure* for the listed entity.

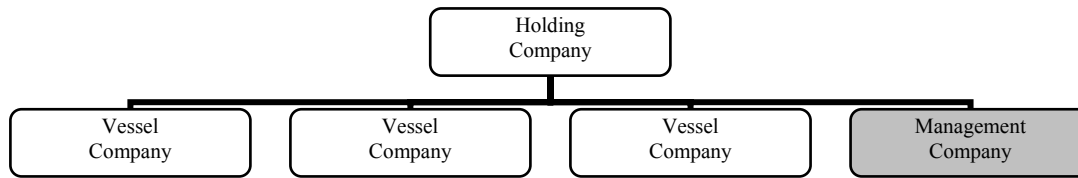
Holding companies are part of corporate groups, which are characterized by complex pyramidal structures and allow the owner or the parent company to maintain control over a large group of companies. A holding company is established by exchanging a parent company's intellectual property assets for stock in a newly-formed subsidiary corporation, which can be incorporated in certain states having favorable state tax laws. The subsidiary's operating company's income is later returned back to the parent company in the form of dividends. The creation of a holding company can increase corporate efficiency in the company's business operation. By consolidating ownership of property, the separate entity can provide centralized management of assets. In this way the holding company can create value for its shareholders, as it carries more weight to monitor management.

Moreover, a holding company's shares may represent stakes in a number of listed and non-listed companies. These shares represent a diversified portfolio for the investors and thus carry less diversifiable risk. If the investor would like to achieve the same degree of diversification without investing in the shares of a holding company, then the investor would incur much higher transaction and portfolio management costs. Difficulties arise because the holding company is often organized in another state and as a result, the company is seldom within direct control of the regulating commissions of the state wherein the operating units function. Over the past two and a half decades, financial holding companies have emerged as the dominant organizational structure in the financial service industry of the United States of America (19). Nowadays holding companies are spread all over the world and operate in multiple sectors.

In the case of the shipping industry, the structure of the holding company, which is usually incorporated in a favorable tax jurisdiction (e.g. the Marshall and Cayman islands) for the purpose of owning and operating ships, consists of: (a) the one vessel company, which has been a usual practice for shipowners over the last twenty or thirty years, especially in the case of structuring a loan and using it when they want to protect the other company's assets or vessels from claims involving the one vessel company, and of (b) the management company of the vessels, which will act as manager for the company's fleet, providing services such as managing vessels operations, including supervising the crewing, supplying, maintaining and dry-docking of the vessels, as well as commercial management services (e.g. identifying suitable vessel charter opportunities) (figure 7-2).

Debt or Equity?
What You Are Is What You Get...

Figure 7-2: Company Structure

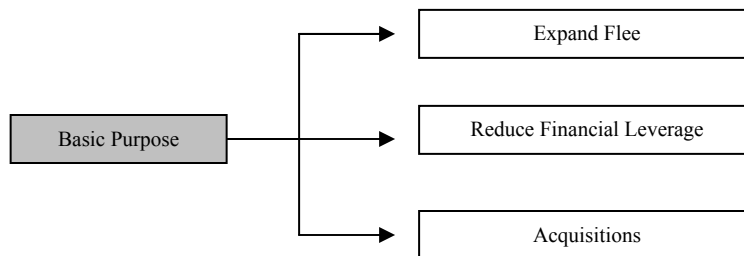


(Source: Author, 2006)

Investment
Plan
Formation

Investment plan formation is the next step in the preparatory stage in which the shipping company decides the basic purpose of the initial public offer. There are a number of reasons for why a shipping company will start a “race” to be listed in a stock exchange and offer its securities to the public (figure 7-3).

Figure 7-3: Four Major Choices



(Source: Author, 2006)

(1)
Expand
Fleet

First and foremost, it is the wish of most shipping companies to raise capital as a means of expanding a company’s fleet. In 2004, Top Tankers (NASDAQ ticker “TOPT”) intended to use approximately \$118,9 million of the net proceeds of the total public offer to cover the acquisition cost of ten tanker vessels (eight Handymax and two Suezmax) and use approximately \$5,1 million for working capital and general corporate purposes. The total acquisition cost for these vessels was approximately \$251,2 million, with the balance covered from debt finance.

(2)
Reduce
Financial
Leverage

Moreover, raising equity will improve the balance sheet of a shipping company, making it easier for a company to raise debt finance at a future time. In other words, these companies may view the IPO process as a means to replace debt with equity. Diana Shipping (NYSE ticker “DSX”) launched a highly successful IPO in late March, raising \$210 million. Diana, backed by Fortis Bank’s Private Equity Group, took the particularly unusual step of delivering, using the proceeds of the equity offering to pay down \$166 million of outstanding debt.

(3)
Acquisitions

In the end, a shipping company may decide to be listed in a stock exchange in order to finance an investment project to buy out another shipping company. In 2004, International Shipping Enterprises (ISE.), described as a special purpose acquisition company (SPAC) or more colloquially as a blank cheque company, pumped nearly \$183 million from investors in order to acquire Navios corporation in a deal worth \$607,5 million ISE borrowed \$514 million under a seven year facility, from HSH Nordbank, some \$425 million of which went towards the acquisition of Navios and the rest for general corporate purposes, including replenishment of working capital. The deal was completed in late February 2005, and Navios Corporation is now listed in the NASDAQ stock exchange with the symbol “BULK”.

Underwriters

Underwriters also play an important role throughout the IPO process and their selection step constitutes a basic factor of a successful initial public offering and equity capital raise. Underwriters help a company register the IPO with the Security and Exchange Commission (SEC), a government agency that protects the investing public in the case of the United States of America, and also pricing, marketing, and selling the IPO to potential investors. In other words, underwriters constitute a “link” between the shipping company and the investment community.

Underwriters in most cases are broker-dealers or investment banks, which are either independent or a member of a syndicated underwriting group that takes advantage of its superior knowledge of market, which permits them to expend less marketing effort. Investment banks can sell the IPO to the potential investors acting either as an agent for the company (i.e. “best effort” offering) or as the owner of the shares (i.e. firm commitment offering). In the former case, there is no financial risk for the underwriter, since the company retains ownership of the shares. In the latter case that the underwriter purchases some or all of the issued shares to resell them to other investors, the underwriter faces financial risk for the issuance of the IPO shares.

Clearly underwriters do not remain unchecked during the period until a company’s listing. An underwriter’s actions are always under observation by both the SEC and the National Association of Securities Dealers (NASD) in the case of the United States of America. For the services presented above, underwriters will receive discounts and commissions from the shipping company in connection with the initial public offering.

Underwriters thus can make profits in two ways. On the one hand, underwriters earn commissions of a certain rate for the issue price or, in other words, a fixed percentage of the total offering value. Therefore, an underwriter gains more, the higher the price is set, and it is to the advantage of the underwriter to attach a high price to the issue. On the other hand, the underwriter can make profits by purchasing part of the IPO shares and selling them on the market after the issue if the after-market price is higher than the issue price. In such a case, it is to the advantage of the underwriter to set a low IPO price in order to make profits by reselling (20). This last category of earnings for the underwriter can be divided into two basic activities: the “free-riding” activity and the “withholding” activity.

In the “free-riding” activity, the underwriters purchase a company’s shares with the intent of not paying for the shares or with the intent of paying for them only if the price goes up by the settlement date. The underwriter can then sell the securities at a price higher than the purchase price, and the sales proceeds can be used to cover the purchase obligation. In the “withholding” activity, the underwriter withholds a certain number of shares from the market until the market prices rises above the offer price (21).

We can find a number of different characteristics between investment banks in the way they act as underwriters and manage a company’s stock or in the way they offer their aftermarket support. Underwriters need to be companies that will understand the investment plans of a shipping company, recognize the shipping industry’s oddities, and offer their services and support to the shipping company for the entire registering period and after public trading.

As Paul Durcham, Finance Director of Tsakos Energy Navigation, Ltd., has mentioned regarding the investment banks that acted as underwriters in the case of Tsakos Energy Navigation’s listing in the New York Stock Exchange (NYSE) on March 5th, 2002, *underwriters need to be companies that understand their company and industry, and who would stand by their company to the end and beyond*. Tsakos Energy Navigation selected J.P. Morgan (Chase), with whom they have a long-standing relationship, Sunrise Investments, Jeffries & Co., Fearnleys, and Alpha Bank, on account of their excellent shipping knowledge.

The question now raised is whether a shipping company should choose an underwriter or whether an underwriter should choose a shipping company for an IPO transaction. The answer is: in the case of large IPO's, shipping companies ought to make the first move in contacting an underwriter or a number of underwriters. The condition of the industry and the company, earnings history, growth prospects, and management quality are some of the factors that influence the decision of an underwriter to take part in an IPO transaction. A company that aims to attract experienced underwriters should expect to provide its business plan as well as historical and financial information to the underwriters in question. Having a well-respected analyst, who will supply research reports on the firm in the years ahead, is a major consideration for any company (22).

In other words, the selection of a qualified and reputable underwriter for a shipping company's shares constitutes a basic factor for a company's reputation in the investment community, and influences an investor's financial decisions about the future performance of a company. Based on a lack of reliable information about companies before the Securities Act of 1933 and 1934, the participation of a reputable bank as lead underwriter of an offering is critical for the deal to succeed (Chernow, 1997).

Data

On June 5th, 2006, Forbes Investment Guide presented the biggest underwriters in the initial public offer sector. As seen in the index below (index 7-1), the Goldman Sachs heads this list as lead underwriter with \$95 billion in offerings, but Deutsche Bank (\$15 billion) shows, by comparison, the best relative-to-market performance numbers.

Index 7-1: Biggest Underwriters: 2006

Lead Underwriter	Total Offer Value (\$mil)	Number Of Issues	Average Performance From First-Day Close		% New Issues From First-Day Close	
			Actual	Rel To S&P 500	Went Up	Beat The Market
Goldman Sachs	94.647	373	284%	142	53%	38%
Morgan Stanley	76.011	353	293%	150	54	39
Credit Suisse First Boston	65.451	478	86%	104	45	35
Merill Lynch	41.538	334	156%	108	47	35
Citigroup	35.527	322	140%	109	50	33
Bank of America	19.672	426	118%	112	42	27
Lehman Brothers	17.786	215	200%	140	55	40
Deutsche Bank	15.283	341	358%	160	48	36
JPMorgan Chase	14.017	231	95%	105	44	30
UBS	13.599	293	128%	93	47	29

(Source: Forbes Investment Guide, 2006)

In the next phase of the preparatory step and before the prospectus formation from the underwriters, a team made up of accountants and lawyers examines the shipping company to ensure that its operating activity and financial condition are absolutely accurate and integrity.

In preparation for going public, a company must supply audited financial statements, which are included in the registration statement and in the prospectus to the Security and Exchange Commission. The level of detail that is required in these financial statements depends upon the size of the company, the amount of capital being raised, and the age of the company.

Moreover, in the case of the United States of America, stock market, financially certificated auditors like Arthur Andersen or Ernst & Young must assist and guide a non US company's managers in the conversion of the company's financial statements to American principles, a time consuming procedure that presents a lot of barriers.

As mentioned in an Ernst & Young financial report, *an audit will include the examination, on a test basis, of the evidence supporting the amounts and disclosures in the financial statements, an assessment of the accounting principles that have been used, significant estimations by the company's managements as well as evaluations of the overall financial statement presentation.*

When the auditors examine the financial statements of a company, i.e. the balance sheet, income statements, stockholder's equity and cash flow performance for a period of years (e.g. three years), and proceed to all necessary estimations, they express their opinion of these statements and give their assurance about whether these statements are free of error. Indisputably, the textual portions of the registration statement are the responsibility of the registrant and its general counsel, not the independent accountant (Herz, 1997 – Dye, 1993).

The basic purpose of a prospectus formation in the last step of the preparatory stage is to attend to a shipping company's registration with the Security and Exchange Commission and to inform the investment community about the company and its characteristics in order to persuade the potential investors to purchase the shares of the company. The prospectus contains detailed information about the industry, the company, which includes a description of its business and its operating history, the identity and experience of its management, and the company's financial statements and often contains information about the pricing of the issue. The final prospectus, with the final offering price, is completed either the day before or the day of the start of public trading. We can discriminate three basic sections on an IPO prospectus: the (a) *general*, the (b) *company*, and the (c) *financial* data.

(1)
General
Data

General data includes basic information about the number of shares that a company will present for the offering price or a price range in the case of a preliminary prospectus and a shipping industry overview.

In the *industry review* section, shipping companies deal with some of the biggest shipping research companies, like Clarkson research studies or Drewry shipping consultant, in order to provide an accurate and detailed overview of the shipping industry. This overview contains some general characteristics of the shipping industry together with statistical and graphical information for the progress of the industry in recent years.

Moreover, the potential investors can make a detailed analysis of the risks related to the shipping industry in which the company operates before making the decision and investing in a company's stocks. We can discriminate these risks in three basic categories: (a) *industry*, (b) *company* and (c) *offer* risks.

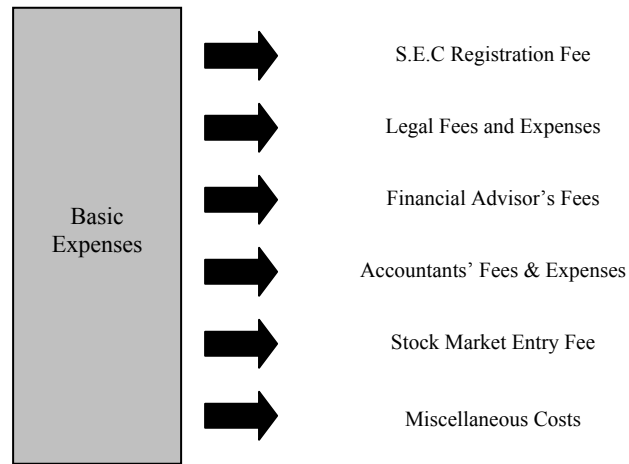
Industry risks contain a number of factors such as cyclicity of the shipping industry, volatility in vessels value, and environmental laws and regulations. Company risks contain factors such as strategic problems, change of financial direction, and the dividends assurance. Offer risks contain factors such as profitable share resale and the future sale of the stock. Understandably, each category contains factors that may affect the financial and operational condition of the company and its stock price. The general data of an IPO prospectus may also contain the expenses of a company's share issuance and distribution. We can recognize a number of different expenses that a shipping company will face in connection with the issuance and distribution of its common stock (Appendix IV). Some of the basic expenses, excluding underwriting discounts and commissions, are presented in the figure below (figure 7-4).

(2)
Company
Data

In the company data section, a company presents some of its basic characteristics and activities. These basic characteristics include the corporate structure of a company, the fleet that a company operates and its own characteristics, the management team, and the customers of a company are the basic information that the company provides in this section.

Moreover, in this section a company has the opportunity to analyze some of the competitive strengths that it has and it furthermore gives the company a strong position in the shipping industry. Some of these strengths are the experience of the management team, the strong relationship with charters, and high quality vessels.

Figure 7-4: IPO's Basic Expenses



(Source: Author, 2006)

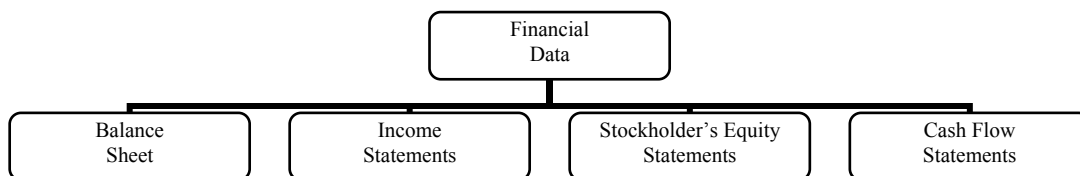
A section that the potential investors find very interesting and that influences their decision about purchasing shares of a company is the strategy that a company will follow in order to maximize the shareholders value.

We can mention a number of different strategies that a shipping company can follow in order to optimize the return on shareholder investment. Generally the most common strategies are the acquisition of a modern fleet, a strategic employment of the vessels between time charters and spot voyage charters, and an increase of the market share in selected markets.

(3)
Financial
Data

Another interesting section in an IPO prospectus is the financial and operating section, which includes all the audited and non-audited financial statements, data, and information of a shipping company for a period of time. The basic statements of the financial and operating section are presented below (figure 7-5).

Figure 7-5: Financial Data



(Source: Author, 2006)

After the preliminary prospectus formation and before the initial sale of a company's stock, a shipping company submits the preliminary prospectus together with the registration statement to the Security and Exchange Commission for examination and approval. This is the first step of the registration stage of the IPO process. The registration statement contains basic information about the offering, such as the name of the company, the number of shares to be traded, and the offer price. Without the SEC approval it would not be possible for a company to enter in a stock exchange.

The SEC examines whether the preliminary prospectus provides all material information about a shipping company, the underwriters (i.e. in cases in which the underwriters were involved either in financial troubles or frauds), and the shares being offered for sale. The SEC uses all the auditing mechanisms at its disposal in order to examine whether the financial statements the prospectus contains are accurate and conform to generally accepted accounting principles and identifies areas believed to be incomplete or inaccurate.

The SEC also requires that companies disclose in the prospectus information about the criminal and disciplinary actions taken against the company's officers and directors and provides specific guidance on what information must be disclosed in the prospectus. In contrast, the SEC does not require disclosure of information about the underwriter's disciplinary history from the company, except special occasions as mentioned before. Many investors believe that information about an underwriter's disciplinary history would be useful and may influence their investment decisions as a result of the great importance that underwriters play in the IPO process.

In 2005, while preparing for its offering in the United States equity market, Aries Maritime (NASDAQ ticker "RAMS") was forced to scramble and restructure its management team as Lloyd's List mentioned on May 20th, 2005, when a member of the company's management team had been blamed by a London High Court judge for a vessel blast nearly eleven years ago. In order to be consistent with the Security and Exchange Commission rules the company obliged to disclose this insurance-fraud event in the public offering documents. Nonetheless, the company pumped \$153 million in 2006 for the United States of America capital market and is now listed in NASDAQ stock exchange under the symbol "RAMS".

Moreover, firms involved in IPO's are usually quite young, have uneven performance records, and can provide only limited historical data from which investment decisions can be made (23). There is no guarantee that a firm that was successful as a private company will manage this transformation effectively (Fischer and Pollock, 2004 and Jain and Kini, 2000).

In some cases the SEC may request that a company revise the preliminary prospectus and require a second revision of the prospectus documents. After making the appropriate revisions, the company resubmits the prospectus and the registration statement to the SEC for approval. The preliminary prospectus revisions may repeat until the SEC has no further comments for prospectus documents. When the SEC has no comments for the preliminary prospectus and its documents, it notifies the company that the registration process and the final prospectus with the final offer price is complete and specify the effective date of the offering.

Quintana
Maritime

Quintana Maritime, established by coal industry players and a private equity house, filed registration materials for up to \$300 million in equity that would be listed on NASDAQ through joint underwriters Citigroup and Morgan Stanley. Quintana's promoters include traded Natural Resources Partners, a leading owner of coal properties, First Reserve, a \$ 4,7 billion private equity funds specializing in energy assets, and AMCI, a large privately-owned coal company (24). Because of the limited information in the initial filing, including a possible dividend policy, many blanks in the prospectus existed, something that created barriers in issuing the shares. Quintana Maritime is now listed in NASDAQ under the symbol "QMAR".

"Road Show"

After the preliminary prospectus is issued to the S.E.C. for approval and examination, the company's management team and investment bankers conduct a marketing campaign for the stocks. This marketing campaign includes a "road show" to major cities, in which presentations are made so that groups of potential investors and investments institutions can meet with the management team of the company. If the offering is sufficiently large and has an international trance, the road show may include presentations in London and Asia (25). In these campaigns the management team of the company has to present the company, its industry, its strategy and its financial history. In these meetings the investment community has the opportunity to ask the managers questions regarding basic elements for the company, like its financial condition and operations.

When a company's and its underwriters go on the "road show" before the offering, they presumably have two main objectives. Firstly, they wish to market the issue to potential investors as described later, and secondly, to obtain more information on the true value of the firm. The extent to which this new information gets incorporated into the offer price contributes to a more accurate pricing of the issue (26).

Tsakos Energy
Navigation

Durcham describes the “race” that he and the other management team members endured in order to present Tsakos Energy Navigation, Ltd., to the investment community, mentioning that they visited hundred of institutions and individuals located in Athens, London, Frankfurt, Zurich, Oslo, as well as fifteen cities in the United States, including New York, Boston, Philadelphia, Houston, Los Angeles and San Francisco. At each presentation the management team had twenty minutes to give a picture of the company, the industry, and its financial history and strategy. Another twenty minutes was allowed for questions and answers before the team rushes to another meeting.

After three weeks of this exhausting itinerary, the company’s team ended up near Philadelphia on the night of March 4th to discover the results of their efforts, of which were spectacular. The potential investors all indicated how impressed they were with management, the company, and its strategy for future growth. More than half of the most important first class investors decided that they would buy shares and the offer was oversubscribed nearly 2,5 times. The proposed price per share was \$15.

Pricing

In order to examine the pricing set of an offer which constitutes a basic step on this stage, we can distinguish two different methods that companies and underwriters use in the case of the United States of America in order to issue company stocks. The first and the dominant selling mechanism for IPO’s on the primary US. market is the *firm commitment contract* and the second is the *best effort offering*, a traditional approach in the United Kingdom and in other countries.

(1)
Firm
Commitment
Contract

With a firm commitment contract, the underwriters prepare a preliminary prospectus, offering a stock price range and information as described later (book building). The preliminary price range should provide some information about how underwriters expect to price the offering. After the “road show” period the company managers acquire information about an investor’s willingness to purchase the issues. In other words, the managers examine who is interested in buying, how much, and at what price (book building). After the demand curve construction, a final offering price is set one day before the offering (27).

Then the preliminary prospectus as described later is issued to the S.E.C. for approval and if all goes well, the underwriter must sell all the shares at a price no higher than the offering price once it has been set. The underwriter in that case takes on some of the offering risk by purchasing all of the company's shares at the offering price, minus their commission, and then resells the shares at the offering price to the investors. Since the underwriter absorbs the cost of any unsold shares, it has a vested interest in making sure the offering is fully subscribed. If demand for a particular IPO is low, underwriters face pressures to establish a lower offering price in order to sell all the shares, generating less cash for the IPO firm and a lower commission for the underwriter (28).

Over
Allotment

Almost all IPO's include an *over-allotment* in the case of a firm commitment contract, in which the issuing firm or selling shareholders give the underwriter the right to sell up to 15 per cent more shares than guaranteed. The over-allotment option is also called the *green shoe* option, since the first offering to include this option was the February 1963 offering of the Green Shoe Manufacturing Company (29).

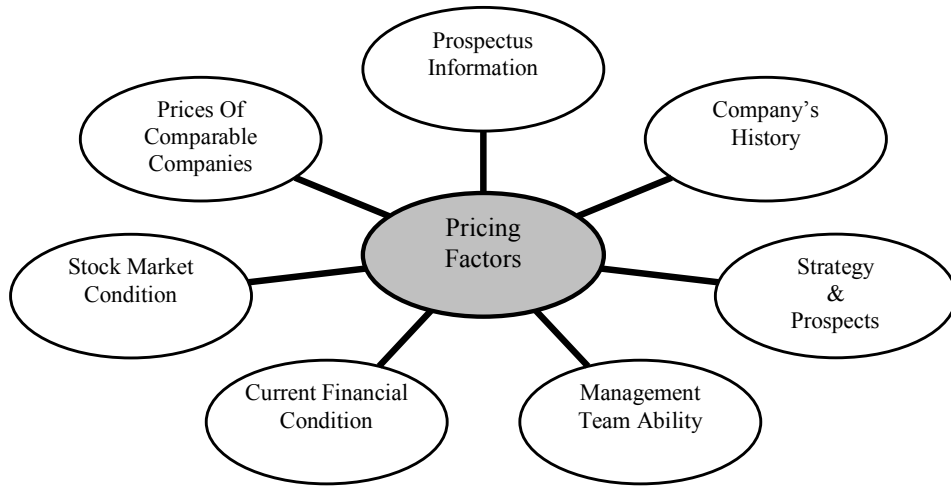
Over-allotment creates a syndicate short position, which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. Conversely, in a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option (30).

(2)
Best-Effort
Offering

In the case of the best efforts offering, the company and its underwriters agree on an offer price as well as a minimum and maximum number of shares to be sold. A "selling period" then commences, during which the investment banker makes its "best efforts" to sell the shares to investors (31). If the underwriter did not succeed in raising the agreed amount of capital from the investment community, then the shipping company would not receive the agreed amount.

In determining the offer price, a company and its underwriters consider a number of factors, including the company's financial history, company prospects and strategy, and its financial condition (figure 7-6). These factors are in most of the cases in relation to the price of similar securities of generally comparable companies.

Figure 7-6: Shares Pricing Factors



(Source: Author, 2006)

Listing & Trading

The last step of the IPO process typically occurs after the market closes on the day before the offering, when the company and its underwriters set the final offer price. This is the price at which the issue is offered to the public. Finally, when the issue starts, trading the market price of a stock after going public is primarily determined by market conditions and the operating performance of the company.

Shipping companies can raise equity by arranging a public offering on one of the stock exchanges around the world. New York, London, Oslo, and Tokyo are some of the stock exchanges that are used for public offering of shipping stocks (index 7-2). The listing of a shipping company in an international stock exchange and the trading of its shares constitute the last step of the IPO process as described in this section.

Index 7-2: Stock Exchanges

<u>Continent</u>	<u>Stock Exchange</u>
America	New York Stock Exchange (NYSE)
	Nasdaq
	American Stock Exchange (AMEX)
Europe	London Stock Exchange (LSE)
	Oslo Stock Exchange (Oslo Bors)
Asia	Tokyo Stock Exchange
	Singapore Exchange (SGX)
	Hong Kong Stock Exchange (HKE)

(Source: Author, 2006)

7.1 Shipping “IPOmania”

In late 1987 and into 1989, as the shipping market picked up out of a long slump (1981-1987), there was a mini wave of public offerings. One of the companies that proceeded to a public offer was Bergvall & Hudner (B & H), the today Excel Maritime Carriers (NYSE ticker “EXM”). Around this time, Anangel American, a bulk carrier specialist, had its stock listed as well. Until then the main source of finance for the shipping companies as mentioned before were banking loans and private equity.

The main reasons for this stock market abstention were: (a) the volatility of the shipping industry, (b) the lack of transparency and corporate structure for the shipping companies, (c) the small yields, (d) the cost of issuing and distribution in a stock exchange and (e) the loss of family on personal control of the shipping company.

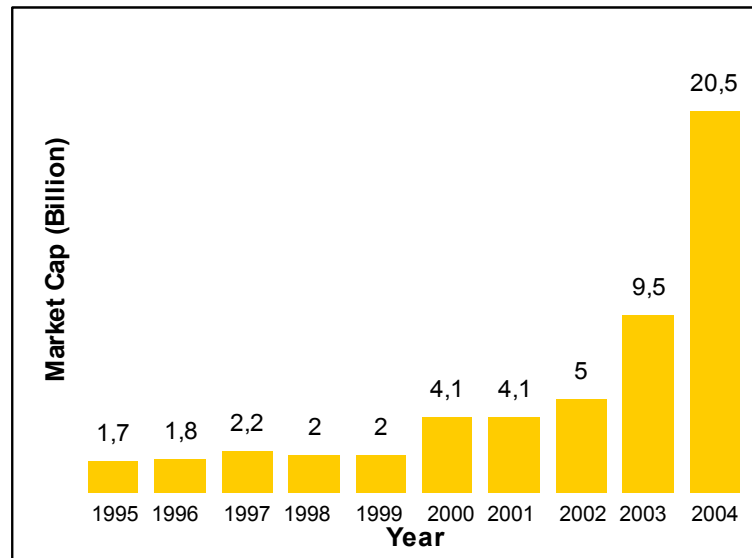
The big IPO wave in the shipping industry made its appearance at the start of this century with the change in the performance of the shipping industry and an investor’s point of view for the market and especially in the years 2004 and 2005, which can be characterized as the shipping “IPOmania” years. A lot of shipping companies during these years were seeking to raise equity capital from investors in large stock markets around the world and especially in the United States of America and in London. These companies estimated in 2004 approximately \$20,5 billion raised from the investment community (chart 7-1). Two of the companies that cut the line first were Stelmar Shipping and Tsakos Energy Navigation.

Stelmar Shipping was listed in the New York Stock Exchange in March 2001, with the symbol “SJH”. After three years the company has been absorbed into the Overseas Shipholding Group (OSG). For this acquisition, OSG paid down \$1,3 billion. A portion of this money (\$843 million) went to the shareholders and another (\$457 million) to the company’s obligations. OSG purchased Stelmar shares defrayed at \$48 per share, a price that was 8 per cent higher than the closing price of the shares on December 10th, 2004.

IPOmania
Episode 1

Stelmar
Shipping

Chart 7-1: Market Cap: 1995-2004



(Source: Author, 2006)

Tsakos
Energy
Navigation

Tsakos Energy Navigation (NYSE ticker “TNP” and Bermuda ticker “TEN”) has taken advantage of the market in 2002 as a means of expanding its fleet. As mentioned before, the investment community embraced the effort of the Greek shipping company to raise capital from the stock markets in the United States of America (NYSE) and in Bermuda stock exchange, making it one of the most successful public offers in the shipping industry.

In March of 2002, Tsakos Energy Navigation succeeded in its offering of 650,000 shares to the international investment community. The proceeds of approximately \$110 million were used to fund a fleet expansion program. TEN offered the promise to the investors of greater liquidity for company’s shares and enhanced shareowner value. As a result, cash dividends of \$40,4 million were attributed to investors for two thousand vessels operations and a further \$41,7 million has been invested in share repurchases.

IPOmania
Episode 2

Moreover, the performance of the shipping industry in 2004 and 2005, as mentioned before, created the need for the shipowners as a result of the significant high vessels prices to find the appropriate capital to expand their fleets. Conversely this performance also attracted the attention of the investment community, which was keen to invest in the industry and gain remarkable returns.

The shipping industry on that period has also gained the attention of the financial media as well. Forbes magazine's list of the Top 200 small companies included Maritrans (NYSE ticker "TUG") in 2005, ranked at 156, and General Maritime, a Greek shipping company, (NYSE ticker "GMR") which came in at 33. The list included small capitalization companies that have performed well on a number of criteria over the past five years.

Greek shipping companies have played a leading role in this source of finance for their investment projects in the last two years. The (a) Greek stock market restrictions (i.e. restrictions on vessels size, in banking finance and in sale and purchase activity) and the (b) size of the stock market as long as the (c) limited interest of the Greek investment community for the ocean shipping sector, lead Greek shipping companies to international capital markets in order to raise equity capital, especially that of the United States and London. Three Greek shipping companies made a public offer in 2004 and six in 2005, raising \$2,6 billion from the United States stock market. Today we can find eighteen Greek shipping companies in international stock markets (index 7-3) around the world.

Index 7-3: 18 Greek Shipping Companies in International Stock Markets: 2006

<u>Shipping Companies</u>	<u>Stock Exchange</u>	<u>Symbol</u>
Top Tankers	NASDAQ	TOPT
Dry Ships	NASDAQ	DRYS
Diana Shipping	NYSE	DSX
Excell Maritime	NYSE	EXM
General Maritime	NYSE	GMR
Genko Shipping & Trading	NASDAQ	GSTL
Tsakos Energy Navigation	NYSE	TNP
Navios Maritime	NASDAQ	BULK
StealthGas	NASDAQ	GASS
Global Oceanic Carriers	AIM	N/A
Freeseas	NASDAQ	N/A
Aries Maritime	NASDAQ	RAMS
Eagle Bulk	NASDAQ	EGLE
Tasks Energy Navigation	Oslo	TEN
Quintana Maritime	Nasdaq	QMAR
Euroseas	OTC BB	N/A
Goldenport Holdings	LSE	N/A
Omega Navigation	Nasdaq	N/A

(Source: Author, 2006)

C O N C L U S I O N

This part described two of the most important finance forms for shipping companies: (a) Syndicated Loan (S.L. Transaction) and (b) Initial Public Offering (IPOs). Syndicate lending was characterized as a debt instrument and Initial Public Offer as an equity instrument in the last chapter. In addition, an attempt has been made to examine the basic characteristics of these two finance forms and also mention each method's contribution to the finance of the shipping industry.

In the case of syndicate lending, the four basic steps before the shipowner signs a loan agreement and the basic terms and conditions of a syndicate loan facility agreement were examined. The final case study involved a shipping company that was interested in financing the acquisition of four Capesize vessels. The repayment table, interest rate, collateral, covenants, and fees are some of the most important terms that this chapter presented. Moreover, in the Appendix, the complete loan agreement is attached, with the absence of any lawyer's contribution.

In the case of the Initial Public Offer, the main part of this analysis concentrated on the examination of the basic steps that a shipping company must take in the case of raising equity from public markets. The choice of an underwriter, "roadshow", prospectus tabling, and issuing of shares are some of the basic steps that this part examined. The last section mentioned the significant contribution of the public offer in the financing of the shipping industry, and presented some examples of certain Greek shipping companies that used public markets in the past to finance their investment projects.

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Case Study & Conclusions

Part Four

Capital Structure Puzzle

4

Capital Structure Puzzle

“Good questions outrank easy answers.”

Paul A. Samuelson

CHAPTER 8

The Corporate Finance Arena

It is an undisputable fact that shipping companies very often face financial decisions that may influence their position in the market and their growth opportunities. Two of these decisions are closely linked with (a) the total amount that the company will invest in specific assets and (b) the selection of the appropriate finance form for the shipping company. So far two of the forms that shipping companies have in their “hands” to finance their investment projects were examined, with the analysis focused on the syndicate loan form as a debt instrument and on the initial public offer as an equity instrument. The aim of this part is to present the basic advantages and disadvantages of these two different and interesting finance forms for the shipping industry, and provide a clear answer to this thesis’ basic question: Which method will be the winner in the corporate finance arena? debt or equity? syndicate loan or initial public offer? For this analysis, a shipping company as a case study will be used. This shipping company case study is interested in raising a specific level of capital to finance the acquisition of four bulk carrier second-hand Capesize vessels and must decide whether the capital should be raised from debt or from equity markets.

Debt or
Equity?

There are a number of different explanations in economic literature that try to explicate the capital structure puzzle and examine when the companies raise debt and when the companies raise equity to finance their investment projects. Traditional corporate finance models suggest that firms select optimal capital structures and benefits of debt financing against financial distress costs (1). Other theories suggest that highly profitable companies often use their earnings to pay down debt and tend to issue equity following an increase in stock price (2). These companies prefer to finance their investments with retained earnings rather than debt, but prefer debt to equity financing. Other theories suggest that economic expansions are financed with equity and economic recessions with debt (3).

In this thesis, the analysis concentrates on the *aim* of the company's investment policy and on the investments *restrictions* or *barriers*, and this analysis starts by examining the basic benefits and costs of the two financial methods that this thesis presents. Obviously syndicated loan and initial public offer constitutes two very interesting and flexible financial instruments. But what are the common spots or differences in these instruments within the corporate "orchestra"?

Large
Amounts of
Capital

The first basic advantage of the two finance methods of our analysis are the *large amounts* of *capital* that the shipowner can derive from banks (i.e. debt finance) and from the investors (i.e. equity finance) in order to finance an investment project like a vessel or vessels acquisition.

As mentioned before, shipping is a capital intensive industry, with vessel prices fluctuating in high levels. When a shipowner decides to expand his or her fleet, a single bank may not be able to afford financing the whole project and will thus retain all risks in one such transaction. Syndicated lending offers an opportunity for the shipping company to finance its investment project with one syndicated loan agreement rather than two or three bilateral loans, with the same terms and conditions for all the participant-syndicated members (spreading risk).

Moreover, this type of debt finance has the ability to spread the risk over several participant lenders. The company, in the case of syndicate lending, does not have to deal with all the participant banks in the transaction, which means it saves time and it occurs a low transaction cost.

Conversely, initial public offer gives the shipowner the opportunity to raise large capital from a diversified pool of investors, where the total percentage of finance can reach up to 100 per cent for the project. This type of equity finance has the ability to spread the risk and the rewards over several investors in the market. A lot of market participants argue that the issue of equity takes place only when the firm has insufficient cash flow from internal resources and has exhausted the potential for issuing additional external debt (4). This constitutes a very interesting view further examined at the end of this part.

Prestige &
Recognition

The fact that numerous banks participate in syndicated loan transactions, that banks trust and finance a given shipping company and continue to deal with it for a long period, provide *prestige* for the company in the market, which may prove to be positive in the shipping company's future transactions.

Moreover, the status and *recognition* of a listed company adds immeasurably to the credibility of that company when dealing with lenders, customers, suppliers, and staff. A stringent reporting requirement, with which a listed company is required to comply, enhances the standing of those companies in the financial community (5).

Impediments

A basic disadvantage of a syndicated loan transaction is the *impediments* that may appear in the syndication process. For example, a potential lender may not agree with some terms of the loan, especially with those that include covenants or collateral. As a result, we have the appearance of barriers in the transaction, which moves very slowly and in most of the cases may default.

Secondary
Market

In some cases participant banks in a syndicate loan transaction may sell their participation or trade the paper to the *secondary market*. Loan sales are structured as either assignments or participations, with investors usually trading through dealer desks at large underwriting banks. Dealer to dealer trading is almost always conducted through a "street" broker (6). As a result, a shipping company may face the possibility that one of the new banks that participates in the facility is inexperienced, with no reputation for these kind of transactions, a factor that may influence the future of the facility.

Valuation

In the case of the initial public offer though, the level of a company's share price as measured relative to either its book value or its earnings, also plays a role in the issuing choice. Many shipping companies avoid issuing equity because they do not want to offer shares at a price they think is too low. In the case of the fixed pricing offer or in the case of the firm commitment offer (where the companies after the "road show" create a more accurate pricing of the issue), companies proceed to the stock exchange to be listed. In some cases the stock market commission may value the company lower than the price that the shares reflect. The company must continue the process with a lower price of the shares or cancel the process. When the shares of a company are under-priced by the market, the company will prefer debt to external equity.

Access to Finance

The IPOs offer the opportunity to shipping companies to enjoy continued access to a diversified pool of investors and raise equity capital on a regular basis to finance their investment projects. This constitutes a very important decision for a shipowner, who sees the public equity capital as a source of company growth and expansion. This is a very interesting view for this analysis; it influences the shipowner's final decision regarding whether to finance the investment with debt or equity capital. Moreover, raising equity from the public markets will improve the balance sheet strength of a shipping company, making it easier for the company to raise debt finance in the future and finance other investment projects.

Lack of Equity

In contrast, there are large amounts of capital that a shipping company can raise with a syndicate loan as well. The percentage of finance that a shipping company can gain with this method usually depends if the market condition is fluctuating between 70 per cent and 80 per cent. But what happens when the company does not have the rest of the private equity capital to finance the investment project? This characteristic of the syndicated lending will be the focus of the next chapter's analysis.

Costs

The syndication loan is characterized by a number of fees that participant banks charge the shipping company (figure 8-1). This situation increases the true cost of the loan for the borrowers and in most cases it is this cost that exceeds a bilateral loan transaction.

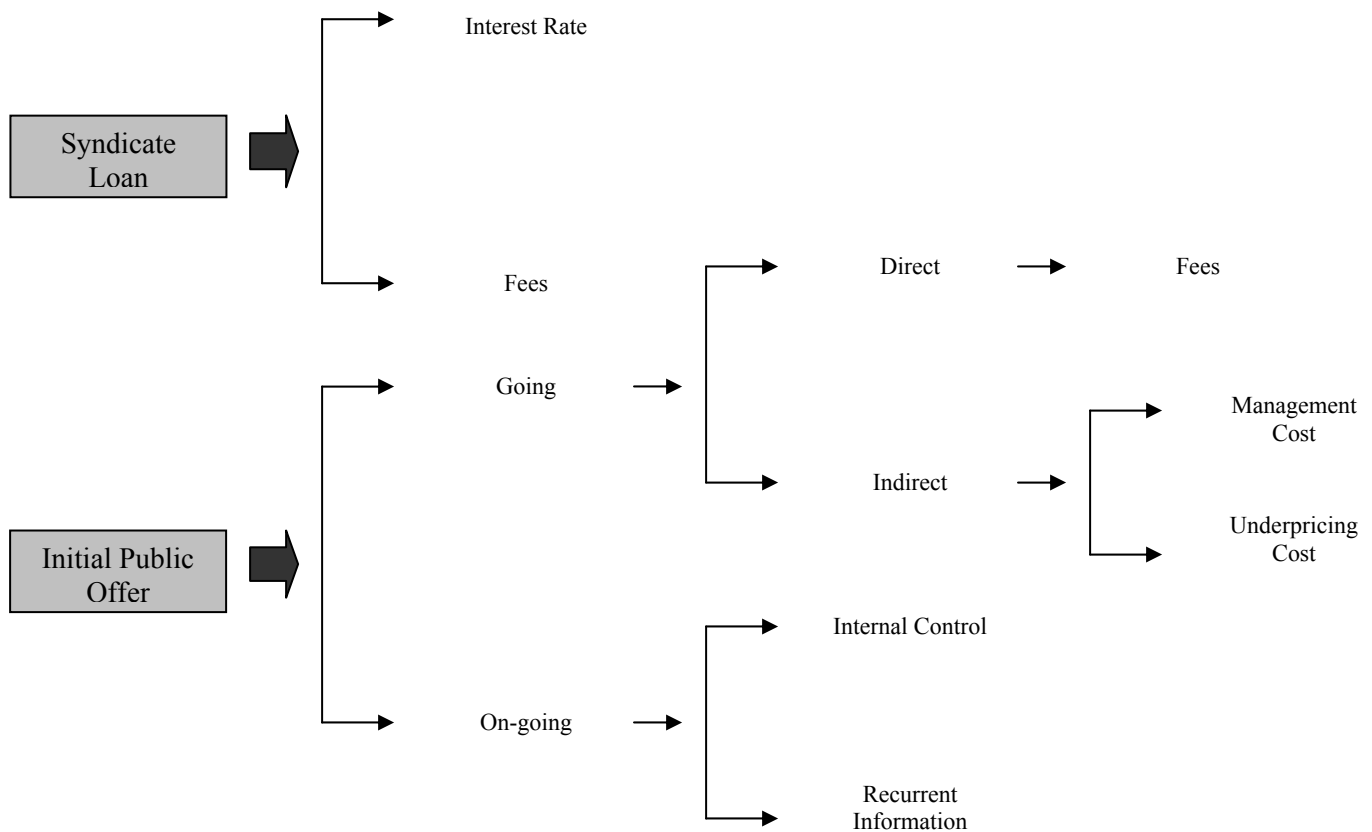
Alternatively, IPOs are linked with costs associated with going public and on-going costs to maintain listing (7) (figure 6-1). The costs associated with going public can be divided into two basic categories: (a) the direct and (b) the indirect costs. These direct and indirect costs affect the cost of capital for firms going public.

In the first category we have the legal, registration, auditing, and underwriting fees described before and in the second category we have the costs that are mainly associated with the “roadshow” and the underpricing of the shares that were examined in the previous part, which are (a) the management time and effort devoted to conducting the offering and (b) the situation associated with selling shares at an offering price that is, on average, below the price prevailing in the market shortly after the IPO.

Moreover, there are certain ongoing costs associated with the need to (a) supply information on a regular basis to investors (i.e. recurrent information) and regulators for publicly-traded firms and (b) the activation of the company’s corporate governance systems and the internal control process as described before.

Understandably, the cost of the syndicate lending is lower than the cost of going public. The question now raised is whether this characteristic influences a shipowner’s decision of which method he or she will use to finance an investment project and when. The answer is in the next chapter’s analysis.

Figure 8-1: The S.L – IPOs Basic Costs



(Source: Author, 2006)

8.1 The Final Battle

The question of this thesis still remains unanswered. Which one of these two forms will the company choose to finance its investment project? The answer that this thesis is going to give in this section is simple. A clear answer cannot be given.

The selection of the appropriate finance form for a shipping company in this thesis can be seen as a decision that is based on the aim of the company's investment policy and on the investment restrictions or barriers that the company faces. Three investment proposals for this case study shipping company can be engaged based on (a) the market condition, (b) the timing of the decisions, and (c) the investment's internal rate of return or the actual rate of return earned on the money invested in the project from time to time (i.e. equity IRR) (8).

In other words, we can assert that the selection from a shipping company between debt and equity or between syndicate lending and initial public offers is not a typical examination of which one of these two forms is better based on the advantages and disadvantages described before. Rather, it is a decision about which one of these methods is the most appropriate and suits the aim of our shipping company's investment policy, jumping over the investment's barriers. Yet what is the role of the internal rate of return model in this analysis?

Internal Rate of Return Model

Present value models were introduced into accounting and finance nearly a century ago. The particular form of present value model most commonly used in finance is the internal rate of return (IRR).

The internal rate of return provides a measure of the average annual rate of return that an investment project will provide. The rate is called internal because it only considers the expected cash flows related to the investment and does not depend on rates that can be earned on alternative investments (9). If the IRR exceeds the minimum acceptable return for a project or the cost of capital, the project is accepted. If the internal rate of return is less than the minimum acceptable rate of return or the cost of capital, the project is rejected. In other words, the internal rate of return model finds the discount rate that makes the present value of future cash inflows (NPV) equal to zero.

From the classical point of view of microeconomics, it is assumed that a private operator implements a project if the expected IRR covers: (a) the market interest rate, plus (b) a risk premium, which takes into account the uncertainties that necessarily affect assessments (e.g. costs and revenues), and (c) a profit margin (10).

Thus, with a market interest rate of 5 per cent, a risk premium of 3 per cent and an additional profit margin of 5 per cent, the minimum targeted IRR* will be 13 per cent. If the IRR of the project is any lower than this, the operator rejects the project.

The equation for the internal rate of return is:

$$\text{Cost} = \sum_{t=1}^n \frac{CF_t}{(1+k)^t}$$

where CF_t is the cash flow projected for year (t), Cost is defined as the initial cash outlay, and (k) is the discount rate that makes the present value of the expected future cash flows exactly equal to the initial cash outlay.

Three different rating categories of investment projects are recognized, the examination of which is based on the internal rate of return model (IRR). As seen in the index below (index 8-1), when the IRR of this project exceeds the least required IRR* or the cost of capital for the shipowner or for the investor ($IRR > IRR^*$), then there is a **Class A** investment project. It is in a shipowner's or investor's own interest to proceed to the investment in this case and accept the project.

Alternatively, if the project's IRR is lower than the cost of capital ($IRR < IRR^*$), then there is a **Class C** investment project and the shipowner or the investor should abandon or reject the investment. In the last case when the investment's project IRR is almost equal to the cost of capital ($IRR = IRR^*$), there is a **Class B** investment project and the shipowner or investor is economically uninterested in the investment project and should think or reconstruct it before deciding to accept or reject the investment.

Index 8-1: Investment Projects Rating

Investment Project Rating		
Class	Comparison	Comments
Class A	$IRR > IRR^*$	Green Light to invest
Class B	$IRR = IRR^*$	Yellow Light to think
Class C	$IRR < IRR^*$	Red Light to stop

(Source: Author, 2006)

It is really difficult to determine the cost of capital for a shipowner or for an investor. In most cases an investor's IRR^*_{inv} exceeds a shipowner's IRR^*_{sh} ($IRR^*_{inv} > IRR^*_{sh}$). The question now raised is why a shipowner may choose to accept an investment project that an investor may reject, and the answer is simple. The shipowner wants to buy a vessel and the investor wants to "buy" returns.

Shipowners
 IRR^*

As we will see in our case study the shipowner finances 75 per cent of the total acquisition cost of four second hand Capesize vessels with debt capital and the remaining 25 per cent with private equity capital. For the entire loan period the shipowner is interested in paying the installments and the interest to the bank and covering the vessels' costs. Shipowners also want a profit margin for the vessels' operation based on market conditions, and estimate a small risk premium that takes into account all shipping market uncertainties that may affect a shipowner's returns. The required internal rate of return for the shipowner in other words is low, as a shipowner takes the risk of operating the vessels in a volatile environment for a period of time with the possibility of significant returns in the long-run period, after the loan maturity when the fleet will pass into the shipowner's possession. At the end of the loan period the shipowner may continue to operate the vessels in the market or in the case of a "hot" market, may choose to sell the vessels and gain significant returns.

The required IRR for the shipowner as mentioned before is basically based on market condition. In other words, we can expect a shipowner to require from an investment an IRR^* amount of 3 per cent to 4 per cent in a distress period (where a shipowner will be happy with this return) and an IRR^* amount of at least 8 per cent to 10 per cent in a favorable period (where a shipowner may be unhappy with this return). For this case study, it is supposed that the least required internal rate of return for the shipowner amounts to 8 per cent ($IRR^*_{sh}=8\%$).

Investors
 IRR^*

Conversely, in the case of the investor's decisions, things are very different. It is true that the cost of capital (or "opportunity" cost of capital) for the investor fluctuates at higher levels than that of the shipowner. The cost of capital is also called "opportunity" cost because it is the highest return an investor can get on an alternative investment with the same risk. Understandably when investors place their capital in specific projects, they want a "guarantee" that they will get a return always based on the investment's risks. The risk for an investor in the shipping industry's volatile environment is higher than in the case of other investments, and that is why in order to make the investment in the shipping industry more attractive, shipowners must offer investment projects with attractive returns for the investors.

Debt or Equity?
Capital Structure Puzzle

In most of the cases in the shipping industry, investors' cost of capital or the least required internal rate of return amounts to 12 per cent to 15 per cent. For this case study, the least required internal rate of return for the investors amounts to 12 per cent ($I.R.R^*_{inv}=12\%$).

Investment
Project

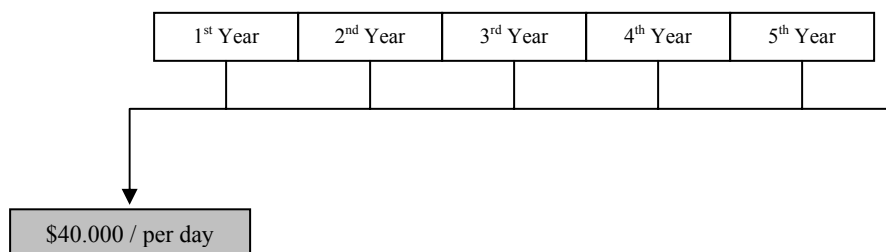
As observed in the index below (index 8-2), our shipping company is interested in acquiring four second-hand bulk carrier Capesize vessels. The vessels' value is estimated at \$72 million for each vessel. In other words the investment's total amount or the assets total cost is \$288 million. It is clear that with two or more assets involved, it may be difficult to identify the cash flows of each asset in an investment. For this reason in this case study, the chartering policy of our shipping company for the first five years includes a time-charter contract with an eminent charterer for the four finance vessels and with the freight amounting to \$40,000 per day for each vessel for 350 revenue days every year (figure 8-2). The operating expenses of each vessel can be estimated at \$5,500 US per day for 365 days every year, with an annual growth of 2 per cent every year (index 8-3).

Index 8-2: Case Study Basic Principles

Investment's Characteristics		
Scope of Investment:	Acquisition of Four Second-Hand Capesize Vessels	(5 years-old)
Vessel Price:	\$72 million	
Total Amount:	\$288 million	
Chartering Policy:	Time Charter: \$40.000 / per day	(1-5 years)
Operating Expenses:	\$5.500 + 2% (annual growth) /per vessel	
Revenue Days:	350 days	
Operating Days:	365 days	

(Source: Author, 2006)

Figure 8-2: Time Charter Duration



(Source: Author, 2006)

Debt or Equity?
Capital Structure Puzzle

In the “diamond” finance decision analysis presented below (figure 8-3), the shipowner seeks to finance the above investment project. The shipowner has to choose between two different roads: finance the investment project with debt or with equity?

First and foremost, the shipowner will examine the basic advantages and disadvantages of the two finance methods, but the shipowner’s final decision will be based on the aim of the shipping company’s investment policy and on the investment barriers that the company may face as mentioned before. For this reason, three basic characteristics of the two finance methods described in the previous section were isolated and three different investment proposals were made and examined when the shipowner followed different roads in his finance decision regarding when these roads will join.

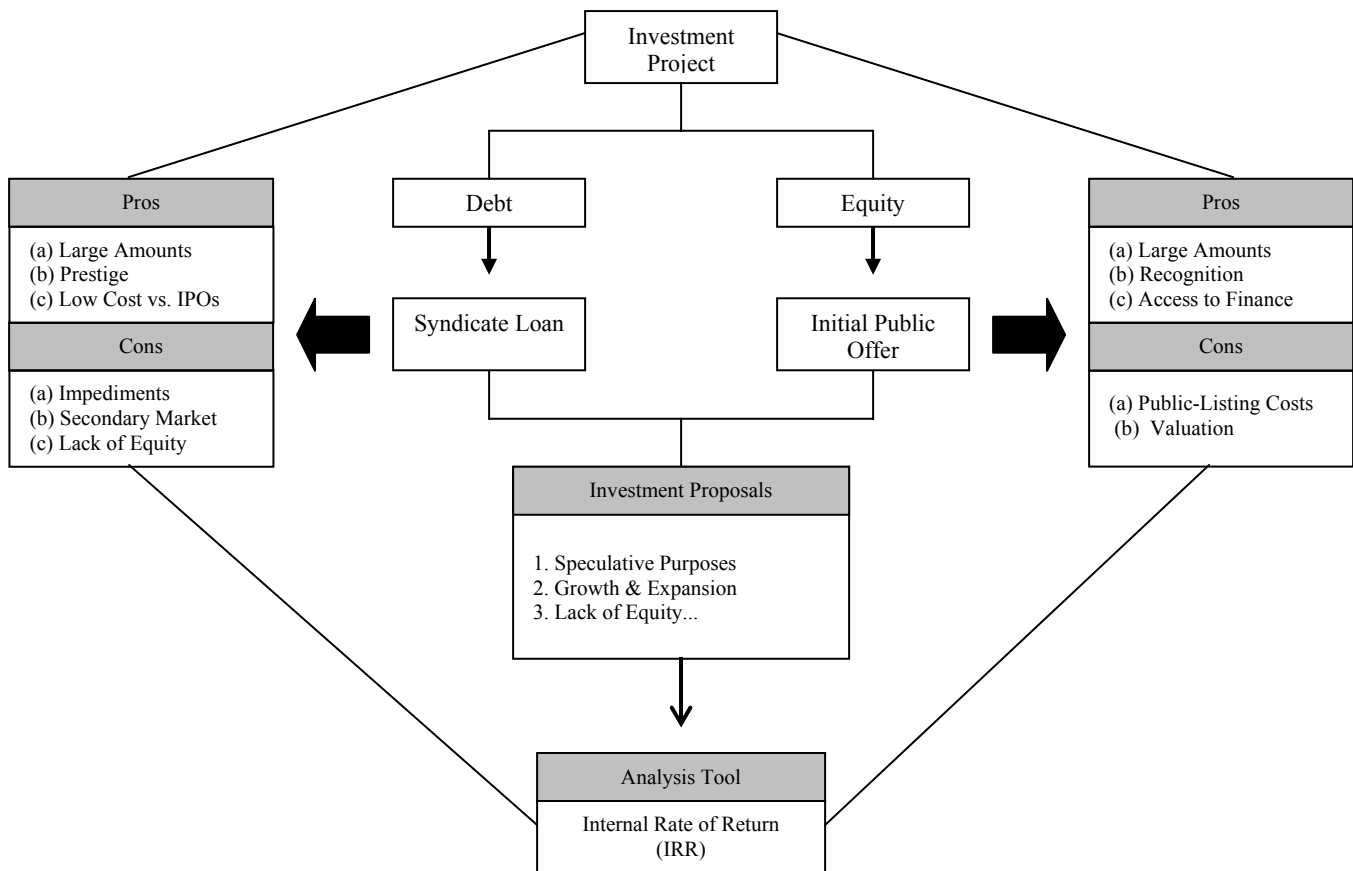
Index 8-3: Vessels Operating Expenses (in US Dollars)

Crew Cost	
Crew Cost	550
Travel	60
Manning and support	30
Medical Insurance	30
Total	670
Stores and Consumables	
General stores	90
Cabin stores and water	20
Lubricants	150
Total	260
Maintenance and repairs	
Maintenance	80
Spares	70
Navigation and comms service	30
Total	180
Insurance	
Hull and Machinery and war risks	500
P&I	200
Total	700
General Costs	
Overheads	90
Communications	80
Miscellaneous	30
Total	200
Total Cost (per annum):	2.010.000
Daily Cost (365 days):	5.5

(Source: Author, 2006)

The three finance method characteristics that are useful and used in this analysis are: (a) the cost of the syndicate lending, which is significantly lower than the cost of going public, (b) the opportunity that the stock market offers to the shipowner in raising equity capital to finance investment projects on a regular basis, and (c) the inability for the shipowner to raise a specific amount of capital with a syndicate loan agreement without the existence of private equity for the balance acquisition cost. In the Appendix I of this thesis, all the calculations for the three investment proposals are analytically presented.

Figure 8-3: The “Diamond” Analysis



(Source: Author, 2006)

Speculative Purpose

In our first investment proposal (investment proposal A), the shipowner wants to finance the acquisition of the four second-hand Capesize vessels in order to operate them in the market for a period of time and then sell them at an appropriate time, exploiting the market’s favorable condition and gaining significant returns.

The timing of this decision in the shipping industry's volatile environment will influence the equity internal rate of return for the shipowner. In other words, a shipowner's *speculative* purpose in this case study is to gain the highest return from this investment on the money that will be invested in the project (i.e. equity IRR). Which finance method is the shipowner going to use in this investment proposal?

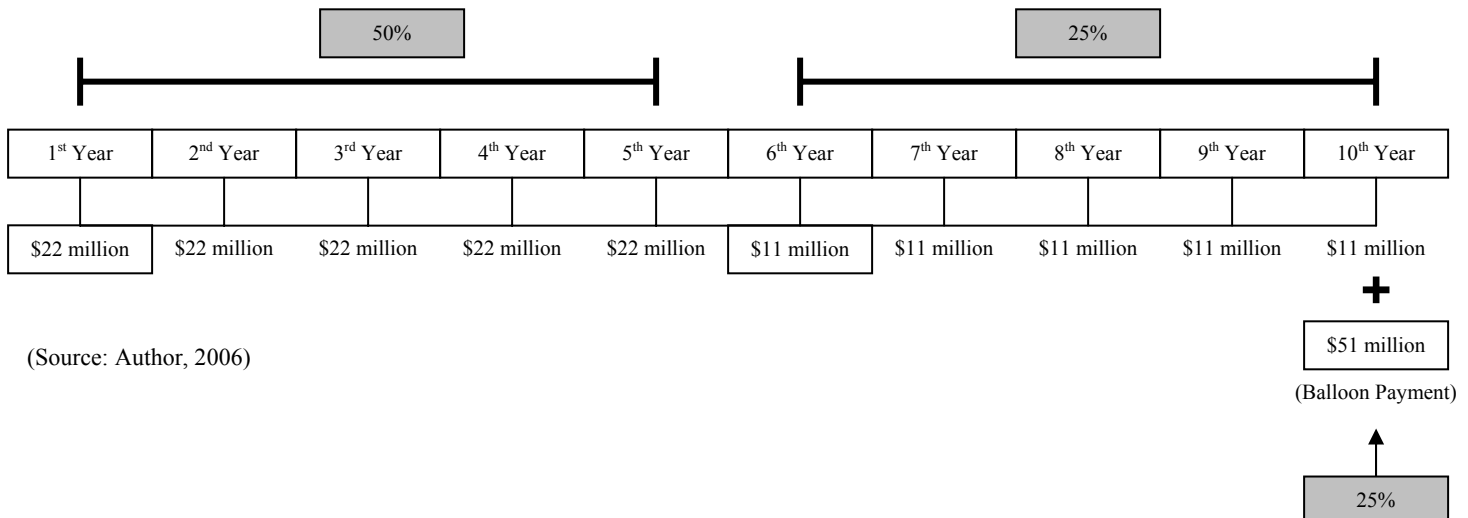
Suppose in this case study that the shipowner proceeds to sign a syndicate loan facility agreement to finance a big part of this investment project because as mentioned before, the cost of a syndicate loan transaction is lower than the cost of issuing shares in the public markets (cost of debt < cost of equity). The cost of finance in this investment proposal plays a central role in the shipowner's speculative decision.

Scenario 1

Let us examine two different scenarios in this investment proposal: (a) scenario 1, where the shipowner decides to sell the vessels at loan maturity and (b) scenario 2, where the shipowner decides to sell the vessels five years before loan maturity.

In the first scenario (scenario 1), the shipowner is interested in financing the acquisition of four bulk carrier Capesize second-hand vessels (each five years-old) in order to operate them in the market for ten years and then sell them. For this reason, the shipowner signs a syndicate loan facility agreement for ten years to cover a part of the vessels cost (75 per cent) with an interest rate amount to 6.50 per cent (1.5 per cent over 5 per cent LIBOR). For the first five years the annual principal installments amount to \$22 million (1-5 years) per year and for the remaining five years to \$11 million (6-10 years) per year with a balloon payment at the maturity of \$51 million (year 10) (figure 8-4).

Figure 8-4: Loan Repayment Table

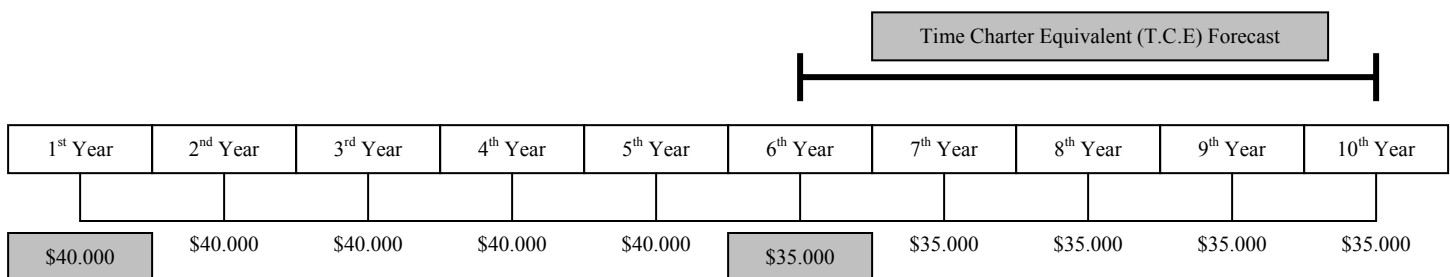


(Source: Author, 2006)

Debt or Equity?
Capital Structure Puzzle

In this investment proposal the syndicate banks finance the 75 per cent (\$216 million) of the total acquisition cost and the shipowner finances the other 25 per cent (\$72 million) with private equity. Of course in this case it is assumed that the shipowner has the private equity to finance the balance acquisition cost. Moreover, as mentioned before, the chartering policy of the case study company includes a time charter contract amounting to \$40,000 per day for the four finance vessels and for the first five years (1-5 years) of the loan period. For the remaining five years (6-10 years) of the syndicate loan agreement there will be a chartering policy for our company based on a time charter equivalent (TCE) forecast amounting to \$35,000 per day for the four finance vessels based on the market condition at a future time (figure 8-5).

Figure 8-5: Time Charter Rate+ Forecast (per day)



(Source: Author, 2006)

A basic part of this analysis is the estimation of the vessels' prices at the sale time. In our first scenario the company's vessels will be fifteen years-old at the loan maturity date. For this reason the bulk carrier Capesize second-hand vessel prices for a period of time are examined based on the Clarkson's research services time series and the appropriate calculations (Appendix V) are made to estimate the vessels' adjusted value in ten years, as presented below (index 8-4). In fact, the vessels' value in this case study is estimated at \$28 million per vessel or \$112 million for the vessels' total cost.

Index 8-4: Estimation Of Vessels Cost: After 10 years

Vessels	d.w.t	Age	Avg Price
Capesize	150	5 years	32,366
Capesize	170	5 years	37,926

Premium (170 over 150): 0,1717

Vessels	d.w.t	Age	Avg Price
Capesize	150	15 years	23,778
Capesize	170	15 years	27,863

(Adjusted Price)

(Source: Author, 2006)

Debt or Equity?
Capital Structure Puzzle

After the appropriate calculations the equity internal rate of return (equity IRR) for this investment proposal is estimated. As seen in the Index below (index 8-5), the I.R.R amounts to 22.27 per cent (I.R.R=22.27%). The question now raised is in what class this investment project can be rated. In other words, is the IRR higher, lower or equal with the shipowner's minimum required IRR*?

Clearly the required internal rate of return for our shipowner is lower than the investment's internal rate of return ($IRR_{sh}^* < IRR$). In this case the investment is characterized as **Class A** investment and the shipowner accepts the project. As mentioned before, this I.R.R estimation is based on this scenario's basic characteristics. Things would be different for the shipowner's internal rate of return in the case of a significant decrease in the freight market after the first five years, or if the shipowner decides not to sell the vessels at the loan maturity but continues to operate the fleet in the market. But what would happen if the shipowner in this investment proposal scenario decided to sell the vessel before the loan maturity?

Index 8-5: (A) Investment Proposal: Scenario 1

(A) Investment Proposal: Speculative Purpose...			
Scenario 1: Vessels sale at Year 10			
Type of Finance:	Syndicate Loan		
Debt:	\$216 million	75% Finance	
Private Equity:	\$72 million		
Chartering Policy:	Time Charter: \$40,000/per day	(1-5 years)	
	Time Charter Equivalent: \$35,000/per day	(6-10 years)	Forecast
Loan Period:	10 years		
Principal Installments:	\$22 million/per year	(1-5 years)	
	\$11 million/per year	(6-10 years)	
Balloon Payment:	\$51 million		
Interest Rate:	6.50%	Spread: 1.5%	
Vessel Value:	\$28 million	(15 year-old)	Estimated
Total Value:	\$112 million	(15 year-old)	Estimated
Equity I.R.R:	22.27%		

(Source: Author, 2006)

Scenario 2

In this second scenario, the shipowner is interested in estimating the equity return in the case that the vessels' sale is accomplished before the loan maturity. In this case, the shipowner decides to sell the vessels at the end of the first five years of the loan period when the time charter contract ends for the company's finance vessels. For this reason the first step is to estimate the vessels value in that year based on the calculations that were presented in the previous scenario and the fact that the vessels would be ten years-old by that time (index 8-6). The vessels' value in this investment proposal after the appropriate calculations (Appendix V) is estimated at \$28.5 million per vessel in or \$114 million for the vessels total cost after five years.

Index 8-6: Estimation Of Vessels Cost: After 5 years

Vessel	d.w.t	Age	Avg Price
Capesize	150	5 year	32,366
Capesize	170	5 year	37,926

Premium (170 over 150): 0,1717

Vessel	d.w.t	Age	Avg Price
Capesize	150	10 year	24,072
Capesize	170	10 year	28,208 (Adjusted Price)

(Source: Author, 2006)

As demonstrated in the index below (index 8-7), the equity internal rate of return (equity IRR) for the second scenario of this investment proposal was estimated at 12.35 per cent. In that case the IRR of this project is higher than the shipowner's required internal rate of return IRR* but lower than the project's IRR that the investor will gain in the previous scenario (scenario 1). In this case the shipowner should abandon the investment in scenario 2 and accept the investment in scenario 1.

Debt or Equity?
Capital Structure Puzzle

Index 8-7: (A) Investment Proposal: Scenario 2

(A) Investment Proposal: Speculative Purpose...			
Scenario 2: Vessels sale at Year 5			
Type of Finance:	Syndicate Loan		
Debt:	\$216 million	75% Finance	
Private Equity:	\$72 million		
Chartering Policy:	Time Charter: \$40,000/per day	(1-5 years)	
Loan Period:	10 years		
Principal Installments:	\$22 million/year	(1-5 years)	
	\$11 million/year	(6-10 years)	
Loan Repayment:	\$106 million	At Year 5	
Interest Rate:	6.50%	Spread: 1.5%	
Vessel Value:	\$28,5 million	(10 year-old)	Estimated
Total Value:	\$114 million	(10 year-old)	Estimated
Equity I.R.R.:	12.35%		

(Source: Author, 2006)

Growth & Expansion...

In the second investment proposal (investment proposal B), the shipowner envisions the acquisition of the four Capesize second-hand vessels (5 years-old) as the first step in the shipowner's company's *growth* and *expansion* policy. The shipowner's basic aim is the growth of his shipping company with the gradual expansion of the company's fleet. The timing of the shipowner's decision will also influence the investors' equity internal rate of return in this analysis. Which method in this case is the shipowner going to use to finance this investment project?

Suppose that in this case study, the most appropriate method for the shipowner is the initial public offer (IPO) because as we mentioned before, the public market offers shipowners the opportunity to raise capital on a regular basis and to finance their investment projects. In other words, shipping companies should use relatively more debt to finance speculative strategies as described before and relatively more equity to finance growth opportunities.

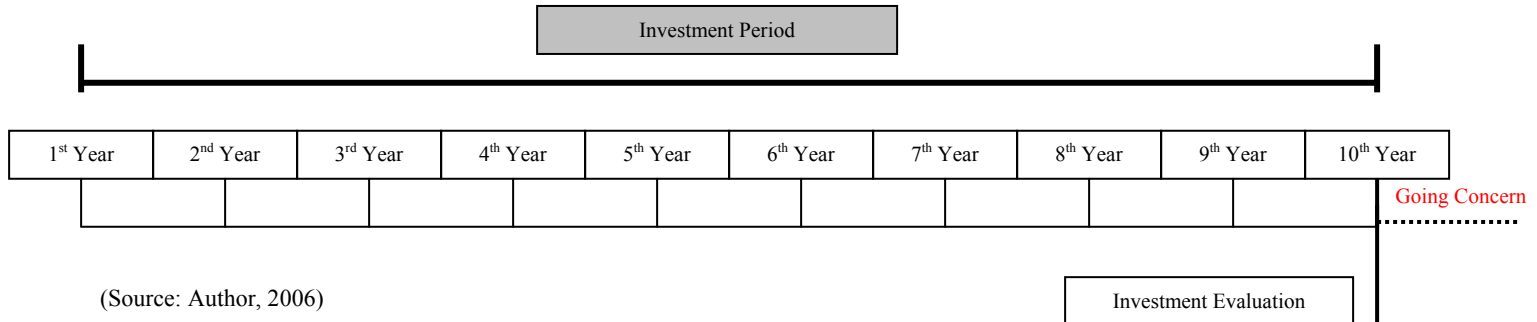
Scenario 1

In the index below (index 8-8), gives the characteristics of our first scenario in this investment proposal are the same with the characteristics presented before in the case of the syndicate loan.

Debt or Equity?
Capital Structure Puzzle

The only difference in this case is that the shipowner uses public offer to finance 100 per cent of the investment. Moreover, we estimate the vessels' value (appraisal of vessel) in year ten of the investment and we suppose that the shipowner will continue to operate the fleet in the market after the first ten years (figure 8-6). With an estimated time-charter equivalent (TCE) amounting to \$35,000 per day for each vessel, the equity internal rate of return IRR amounts to 12,11 per cent(index 8-8).

Figure 8-6: Vessels Appraisal at year 10



(Source: Author, 2006)

Index 8-8: (B) Investment Proposal: Scenario 1

(B) Investment Proposal: Growth & Expansion Purpose...			
Scenario 1 : Forecast of Freight Rates after 5 years			
Type of Finance:	Initial Public Offer		
Debt:	0		
Public Equity:	\$288 million	100% Finance	
Chartering Policy:	Time Charter: \$40.000/per day	(1-5 years)	
	Time Charter Equivalent: \$35.000/per day	(6-10 years)	Forecast
Vessel Appraisal:	\$28 million	(year 10)	Estimated
Total Appraisal:	\$112 million	(year 10)	Estimated
Equity I.R.R.:	12,11%		

(Source: Author, 2006)

At this point it is clear that in the first scenario the equity internal rate of return for this project (IRR) is almost equal with the required internal rate of return for the investor (IRR_{inv}^*) as described before. In other words, this is a **Class B** investment project. The project's IRR is attractive for an investor and in such a case the shipping company may accept the project or proceed to an investment reconstruction of this investment's basic characteristics (i.e. time charter rates, time charter equivalent, e.t.c.) in order to be sure that the project will be absorbed from the market.

Scenario 2

In the case of the investment reconstruction a forecast of a “hot” market after the first five years influence investors equity internal rate of return and there final decision. In the second scenario of this investment proposal, rates are anticipated to rise after the first five years is examined with a time charter equivalent (TCE) of \$45,000 per day for the four vessels. Moreover, we estimate that the vessels value in a case of a “hot” market amounting to \$45 million per vessel or \$180 million the vessels appraisal in year ten based on prices that this type of vessel gained in previous years. In this case as evident in the index below (index 8-9), the investors’ equity internal rate of return (IRR) amounts to 15,45 per cent..

Index 8-9: (B) Investment Proposal: Scenario 2

(B) Investment Proposal: Growth & Expansion Purpose...			
Scenario 2: "Hot" Market of Freight Rates after 5 years			
Type of Finance:	Initial Public Offer		
Debt:	0	0	
Public Equity:	\$288 million	100% Finance	
Chartering Policy:	Time Charter: \$40.000/per day	(1-5 years)	
	Time Charter Equivalent: \$45.000/per day	(6-10 years)	Forecast
Vessel Appraisal	\$45 million	(year 10)	Estimated
Total Appraisal	\$180 million	(year 10)	Estimated
Equity I.R.R.:	15,45%		

(Source: Author, 2006)

Clearly in the second scenario the equity internal rate of return for this project (IRR) is higher than the required internal rate of return of the investor (IRR_{inv}^*); thus a **Class A** investment project. In this case the shipowner accepts the investment because they believe that it will be absorbed by the investment community.

Lack Of Equity...

In the third investment proposal (investment proposal C), the shipowner wants to finance the acquisition of the four second-hand Capesize vessels in order to operate them in the market for a period of time, exploiting the favorable market condition and gain significant returns. For this reason, the shipowner decides to sign a syndicate loan agreement for 75 per cent of the total acquisition cost but the problem is that the shipowner does not have the private equity to cover the remaining 25 per cent of the vessels cost. In other words, the shipowner in this case faces investment restrictions or barriers and suffers from *lack of equity*.

Debt or Equity?
Capital Structure Puzzle

This poisonous lack of equity “disease” is a combination of the two different finance methods that were presented before, so that the company might be able to overcome this investment’s barrier: a syndicate loan for 75 per cent of the total acquisition cost of the four vessels and a small IPO for the rest 25 per cent.

Scenario 1

As presented in the index below, the characteristics of the first scenario in this investment proposal are the same as the characteristics presented before in the first two investment proposals. The only difference is that in this case the shipowner uses debt capital to finance the 75 per cent of the total acquisition cost of the four vessels and public offer to finance the remaining 25 per cent. With an estimated time-charter equivalent amounting to \$35.000 per day for each vessel and a vessels appraisal amounting to \$28.000.000 at the end of the ten years as described before, the equity internal rate of return IRR for this scenario amounts to 22,27 per cent (index 8-10).

Index 8-10: (C) Investment Proposal: Scenario 1

(C) Investment Proposal: Lack of Equity...			
Scenario 1: Forecast of Freight Rates after 5 years			
Type of Finance:	Syndicate Loan + Initial Public Offer		
Debt:	\$216 million	75% Finance	
Public Equity:	\$72 million	Small IPO	100% Finance
Chartering Policy:	Time Charter: \$40.000/per day	(1-5 years)	
	Time Charter Equivalent: \$35.000/per day	(6-10 years)	Forecast
Loan Period:	10 years		
Principal Installments:	\$22 million/per year	(1-5 years)	
	\$11 million/per year	(6-10 years)	
Balloon Payment:	\$51.000.000		
Interest Rate:	6,50%	Spread: 1,5%	
Vessel Appraisal:	\$28 million	(year 10)	Estimated
Total Appraisal:	\$112 million	(year 10)	Estimated
Equity I.R.R.:	22,27%		

(Source: Author, 2006)

Clearly the investment’s equity internal rate of return (equity IRR) exceeds the investor’s required internal rate of return (IRR_{inv}^*). In this case the shipowner accepts the investment proposal which offers attractive returns to the investors with this **Class A** investment project. After the loan period a shipowner may decide to sell the vessels as described in the first investment proposal or continue to operate them in the market (going concern). In this investment proposal thinks may be different in a case of a “hot” market for freight rates.

Scenario 2

In the second scenario (Scenario 2), the case of a “hot” market is examined, where a prediction is made that the rates will rise after the first five years and there will be a time charter equivalent (TCE) of \$45,000 per day for the four vessels. Moreover, we assume that the vessels value amounting to \$45 million or \$180 million as examined before. The index below (index 8-11) indicates the equity internal rate of return (IRR), which amounts to 28,42 per cent for this investment.

In this scenario the equity internal rate of return exceeds an investor’s required internal rate of return. With this scenario the shipowner is optimistic that the investment community will absorb the investment as a result of the attractive returns, and proceed to accept this investment proposal. As described in the previous case, after the loan period the shipowner may continue to operate the fleet in the market or sell it in order to benefit from the favorable market condition.

In the last two investment proposals we assumed a “hot” market in freight rates in order to examine the significant importance of the decision timing. It is an indisputable fact that is of no use to examine predictions with low freight rates after the first five years and “disaster” scenarios. No one from the investment community will invest in a project with minus returns or with predictions of a significant decrease in freight rates and the syndicate banks will not likely offer their debt capital in such conditions.

Index 8-11: (C) Investment Proposal: Scenario 2

(C) Investment Proposal: Lack of Equity...			
Scenario 2: "Hot" Market Level of Freight Rates after 5 years			
Type of Finance:	Syndicate Loan + Initial Public Offer		
Debt:	\$216 million	75% Finance	
Public Equity:	\$72 million	Small IPO	100% Finance
Chartering Policy:	Time Charter: \$40.000/per day	(1-5 years)	
	Time Charter Equivalent: \$45.000/per day	(6-10 years)	Forecast
Loan Period:	10 years		
Principal Installments:	\$22 million/per year	(1-5 years)	
	\$11 million/per year	(6-10 years)	
Balloon Payment:	\$51 million		
Interest Rate:	6,50%	Spread: 1,5%	
Vessel Appraisal:	\$45 million		Estimated
Total Appraisal:	\$180 million		Estimated
Equity I.R.R.:	28,42%		

(Source: Author, 2006)

C O N C L U S I O N

The aim of this part was to answer our basic question: finance a shipping investment project with debt or with equity? Syndicate Loan or Initial Public Offers? We used a shipping company case study that was interested in financing a specific investment project.

We examined the basic benefits and costs of the two finance methods. Large amounts of capital that the companies can raise from the debt and equity markets, access to finance, secondary market, company's valuation, recognition, and reputation are some of the characteristics of the two finance methods. As mentioned in the previous analysis, the choice between debt and equity or between syndicate loan and initial public offers is not based only on the examination of the basic advantages and disadvantages of the two finance methods. The selection between these two finance methods is based on the aim of the shipping company's investment policy and on the investment restrictions that the company may face.

Thus three different investment proposals for the shipping company were used, and the timing for when the company makes use of debt capital and when it makes use of equity capital to finance its investment project was examined. In the first investment proposal, the shipowner was interested in financing the vessels' acquisition in order to operate them in the market for a period of time and in the appropriate time to sell them and gain significant returns. This *speculative* strategy for the shipowner can be financed with a syndicate loan agreement, because the cost of the syndicate loan transaction is lower than that of issuing shares in the public markets.

Conversely, issuing shares in the public markets can be the appropriate method for shipping companies in order to finance *growth* and *expansion* policies. In the second investment proposal, the case study shipping company raised equity capital to finance its investment project and had the opportunity at a future time and on a regular basis to raise additional equity capital from a pool of diversified investors in order to finance other investment projects and expand its fleet.

But what happens when the company raises debt capital to finance a part of the investment's cost but does not have the private equity balance to cover the rest of the investment's cost? This is the case when these two methods meet each other. As in the third investment proposal, the shipowner can raise a part of the investment's cost with debt capital and the balance with issuing shares to the public (small IPO) in order to pass off this investment barrier. In this case we have debt with equity.

Here, the Internal Rate of Return model (IRR) was used in order to examine when the shipowner will proceed with or reject the investment. Worthwhile is the examination of the shipowner's and the investor's least required internal rate of return or cost of capital. Assuming that the cost of capital for the shipowner is lower than the investor's for a number of reasons, one can proceed to examine different scenarios based on the three investment proposals in this case study. We wish to see how the market condition and timing of finance decisions influences the equity returns for shipowners and investors.

In the end, it is important to note that the investment proposals are only a small example of how the two finance methods can be used in order to finance different investment policies. A number of different investment proposals that can be financed either with debt or equity, or financed from the two methods together, was examined.

The cases where a shipowner for some reasons cannot raise debt capital from banks and proceed to raise equity from the capital markets in order to finance the total investment cost, or where the shipowner raises equity capital from the public market to finance a part of the investment with the balance raised from debt markets, are only two examples which demonstrate that the choice between debt or equity is not a simple decision of which method is better, **but a choice that is based on the shipping company's investment policy aim and on the investment barriers that the company faces in its finance decision.**

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Appendix

Contents

114	(I)	Investment Proposals
120	(II)	List Of Banks Participating In Greek Shipping Finance
121	(III)	Hellespont Syndicated Loan Facility Aggrement
122	(IV)	The NYSE Listing Costs
123	(V)	Estimation Of Vessels Cost: After 5 & 10 Years (Clarkson Research Services)

(A) Investment Proposal (Syndicated Loan) - in USD / Vessel sale at Year 10

Investment	288.000.000										
Bank Loan	216.000.000	75% Financing									
Private Equity	72.000.000										
Loan Period	10 years										
Balloon	51.000.000										
Vessel Terminal Value	28.000.000										
Principal Installments	22.000.000	(1-5 years)									
	11.000.000	(6-10 years)									
Interest Rate	6,50%										
Revenue Days	350										
Operating Days	365										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Freight Rates											
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Total Revenue (per day)	160.000	160.000	160.000	160.000	160.000	140.000	140.000	140.000	140.000	140.000	
Operating Expenses											
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Total OPEX (per day)		22.000	22.440	22.888	23.348	23.812	24.288	24.776	25.272	25.776	
Revenue Days											
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Total Revenue Days		1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	
Operating Days											
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Total Operating Days		1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	
Bank Loan											
Principal Installments		22.000.000	22.000.000	22.000.000	22.000.000	22.000.000	11.000.000	11.000.000	11.000.000	11.000.000	
Interest	6,50%	14.040.000	12.610.000	11.180.000	9.750.000	8.320.000	6.890.000	6.175.000	5.460.000	4.030.000	
Balloon	(-)									51.000.000	
Loan O/S	216.000.000	194.000.000	172.000.000	150.000.000	128.000.000	106.000.000	95.000.000	84.000.000	73.000.000	62.000.000	
0											
Cash Flow Projections											
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenues		56.000.000	56.000.000	56.000.000	56.000.000	56.000.000	49.000.000	49.000.000	49.000.000	49.000.000	49.000.000
OPEX	(-)	8.030.000	8.190.600	8.354.120	8.522.020	8.691.380	8.865.120	9.043.240	9.224.280	9.408.240	9.596.580
Operating Cash Flow		47.970.000	47.809.400	47.645.880	47.477.980	47.308.620	40.134.880	39.956.760	39.775.720	39.591.760	39.403.420
Principal & Interest		36.040.000	34.610.000	33.180.000	31.750.000	30.320.000	17.890.000	17.175.000	16.460.000	15.745.000	15.030.000
Free Cash Flow		11.930.000	13.199.400	14.465.880	15.727.980	16.988.620	22.244.880	22.781.760	23.315.720	23.846.760	24.373.420
Sale of Vessel											112.000.000
Balloon	(-)										51.000.000
Net Cash Flow		11.930.000	13.199.400	14.465.880	15.727.980	16.988.620	22.244.880	22.781.760	23.315.720	23.846.760	85.373.420
Equity IRR : 22,27%	-72.000.000	11.930.000	13.199.400	14.465.880	15.727.980	16.988.620	22.244.880	22.781.760	23.315.720	23.846.760	85.373.420

(A) Investment Proposal (Syndicated Loan) - in USD / Vessel Sale at Year 5

Investment		288.000.000				
Bank Loan		216.000.000	75%	Financing		
Equity		72.000.000				
Loan Period		10 years				
Balloon		51.000.000				
Vessel Terminal Value		28.500.000				
Principal Installments		22.000.000	(1-5 years)			
		11.000.000	(6-10 years)			
Interest Rate		6,50%				
Revenue Days		350				
Operating Days		365				
		Year 1	Year 2	Year 3	Year 4	Year 5
Freight Rates						
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000
Total Revenue (per day)		160.000	160.000	160.000	160.000	160.000
Operating Expenses						
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953
Total OPEX (per day)		22.000	22.440	22.888	23.348	23.812
Revenue Days						
Capesize 170,000 dwt		350	350	350	350	350
Capesize 170,000 dwt		350	350	350	350	350
Capesize 170,000 dwt		350	350	350	350	350
Capesize 170,000 dwt		350	350	350	350	350
Total Revenue Days		1.400	1.400	1.400	1.400	1.400
Operating Days						
Capesize 170,000 dwt		365	365	365	365	365
Capesize 170,000 dwt		365	365	365	365	365
Capesize 170,000 dwt		365	365	365	365	365
Capesize 170,000 dwt		365	365	365	365	365
Total Operating Days		1.460	1.460	1.460	1.460	1.460
Bank Loan						
Principal Installments		22.000.000	22.000.000	22.000.000	22.000.000	22.000.000
Interest	6,50%	14.040.000	12.610.000	11.180.000	9.750.000	8.320.000
Balloon	(-)					
Loan O/S	216.000.000	194.000.000	172.000.000	150.000.000	128.000.000	106.000.000
Cash Flow Projections						
		Year 1	Year 2	Year 3	Year 4	Year 5
Revenues		56.000.000	56.000.000	56.000.000	56.000.000	56.000.000
OPEX	(-)	8.030.000	8.190.600	8.354.120	8.522.020	8.691.380
Operating Cash Flow		47.970.000	47.809.400	47.645.880	47.477.980	47.308.620
Principal & Interest		36.040.000	34.610.000	33.180.000	31.750.000	30.320.000
Free Cash Flow		11.930.000	13.199.400	14.465.880	15.727.980	16.988.620
Sale of Vessel						114.000.000
Loan O/S Repayment						-106.000.000
Net Cash Flow		11.930.000	13.199.400	14.465.880	15.727.980	55.220.000
Equity IRR: 12,35%		-72.000.000	11.930.000	13.199.400	14.465.880	15.727.980
						55.220.000

(B) Investment Proposal (Initial Public Offer) - in USD/ Forecast of Freight Rates

Investment	288.000.000	
Debt	0	
Public Equity	288.000.000	
Investment Period (years)	10	
Vessel Appraisal	28.000.000	(year 10)
Revenue Days	350	
Operating Days	365	

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Freight Rates												
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Total Revenue (per day)		160.000	160.000	160.000	160.000	160.000	140.000	140.000	140.000	140.000	140.000	
Operating Expenses												
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573	
Total OPEX (per day)		22.000	22.440	22.888	23.348	23.812	24.288	24.776	25.272	25.776	26.292	
Revenue Days												
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350	
Total Revenue Days		1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	
Operating Days												
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365	
Total Operating Days		1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	
Cash Flow Projections												
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Revenues		56.000.000	56.000.000	56.000.000	56.000.000	56.000.000	49.000.000	49.000.000	49.000.000	49.000.000	49.000.000	
OPEX	(-)	8.030.000	8.190.600	8.354.120	8.522.020	8.691.380	8.865.120	9.043.240	9.224.280	9.408.240	9.596.580	
Operating Cash Flow		47.970.000	47.809.400	47.645.880	47.477.980	47.308.620	40.134.880	39.956.760	39.775.720	39.591.760	39.403.420	
Vessel Appraisal											112.000.000	
Equity IRR: 12,11%		-288.000.000	47.970.000	47.809.400	47.645.880	47.477.980	47.308.620	40.134.880	39.956.760	39.775.720	39.591.760	151.403.420

Investment Proposal (Initial Public Offer) - in USD / "Hot" Market Level of Freight Rates

Investment	288.000.000	
Debt	0	
Public Equity	288.000.000	
Period	10	
Vessel Appraisal	45.000.000	(year 10)
Revenue Days	350	
Operating Days	365	

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Freight Rates											
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	45.000	45.000	45.000	45.000	45.000
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	45.000	45.000	45.000	45.000	45.000
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	45.000	45.000	45.000	45.000	45.000
Capesize 170,000 dwt		40.000	40.000	40.000	40.000	40.000	45.000	45.000	45.000	45.000	45.000
Total Revenue (per day)		160.000	160.000	160.000	160.000	160.000	180.000	180.000	180.000	180.000	180.000
Operating Expenses											
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	6.573
Total OPEX (per day)		22.000	22.440	22.888	23.348	23.812	24.288	24.776	25.272	25.776	26.292
Revenue Days											
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	350
Total Revenue Days		1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400
Operating Days											
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	365
Total Operating Days		1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460
Cash Flow Projections											
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenues		56.000.000	56.000.000	56.000.000	56.000.000	56.000.000	63.000.000	63.000.000	63.000.000	63.000.000	63.000.000
OPEX	(-)	8.030.000	8.190.600	8.354.120	8.522.020	8.691.380	8.865.120	9.043.240	9.224.280	9.408.240	9.596.580
Operating Cash Flow		47.970.000	47.809.400	47.645.880	47.477.980	47.308.620	54.134.880	53.956.760	53.775.720	53.591.760	53.403.420
Vessel Appraisal											180.000.000
Equity IRR: 15,45%	-288.000.000	47.970.000	47.809.400	47.645.880	47.477.980	47.308.620	54.134.880	53.956.760	53.775.720	53.591.760	233.403.420

(C) Investment Proposal (Syndicated Loan - Initial Public Offer) - in USD / Forecast Level of Freight Rates

Investment	288.000.000										
Bank Loan	216.000.000	75% Financing									
Public Equity	72.000.000	Small IPO									
Loan Period	10 years										
Balloon	51.000.000										
Principal Installments	22.000.000	(1-5 years)									
	11.000.000	(6-10 years)									
Interest Rate	6,50%										
Vessel Appraisal	28.000.000	(year 10)									
Revenue Days	350										
Operating Days	365										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Freight Rates											
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Capesize 170,000 dwt	40.000	40.000	40.000	40.000	40.000	35.000	35.000	35.000	35.000	35.000	
Total Revenue (per day)	160.000	160.000	160.000	160.000	160.000	140.000	140.000	140.000	140.000	140.000	
Operating Expenses											
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Capesize 170,000 dwt	2%	5.500	5.610	5.722	5.837	5.953	6.072	6.194	6.318	6.444	
Total OPEX (per day)		22.000	22.440	22.888	23.348	23.812	24.288	24.776	25.272	25.776	
Revenue Days											
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Total Revenue Days		1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	
Operating Days											
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Total Operating Days		1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	1.460	
Bank Loan											
Principal Installments		22.000.000	22.000.000	22.000.000	22.000.000	22.000.000	11.000.000	11.000.000	11.000.000	11.000.000	
Interest	6,50%	14.040.000	12.610.000	11.180.000	9.750.000	8.320.000	6.890.000	6.175.000	5.460.000	4.745.000	
Balloon	(-)									51.000.000	
Loan O/S	216.000.000	194.000.000	172.000.000	150.000.000	128.000.000	106.000.000	95.000.000	84.000.000	73.000.000	62.000.000	
Cash Flow Projections											
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenues		56.000.000	56.000.000	56.000.000	56.000.000	56.000.000	49.000.000	49.000.000	49.000.000	49.000.000	49.000.000
OPEX	(-)	8.030.000	8.190.600	8.354.120	8.522.020	8.691.380	8.865.120	9.043.240	9.224.280	9.408.240	9.596.580
Operating Cash Flow		47.970.000	47.809.400	47.645.880	47.477.980	47.308.620	40.134.880	39.956.760	39.775.720	39.591.760	39.403.420
Principal & Interest		36.040.000	34.610.000	33.180.000	31.750.000	30.320.000	17.890.000	17.175.000	16.460.000	15.745.000	15.030.000
Free Cash Flow		11.930.000	13.199.400	14.465.880	15.727.980	16.988.620	22.244.880	22.781.760	23.315.720	23.846.760	24.373.420
Balloon	(-)										51.000.000
Vessel Appraisal											112.000.000
Net Cash Flow		11.930.000	13.199.400	14.465.880	15.727.980	16.988.620	22.244.880	22.781.760	23.315.720	23.846.760	85.373.420
Equity IRR: 22,27%	-72.000.000	11.930.000	13.199.400	14.465.880	15.727.980	16.988.620	22.244.880	22.781.760	23.315.720	23.846.760	85.373.420

Investment Proposal (Syndicated Loan - Initial Public Offer) - in USD / "Hot" Market Level of Freight Rates

Investment	288,000,000										
Bank Loan	216,000,000	75% Financing									
Public Equity	72,000,000	Small IPO									
Loan Period	10 years										
Balloon	30,000,000										
Principal Installments	22,000,000	(1-5 years)									
	11,000,000	(6-10 years)									
Interest Rate	6.50%										
Vessel Appraisal	45,000,000	(year 10)									
Revenue Days	350										
Operating Days	365										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Freight Rates											
Capesize 170,000 dwt	40,000	40,000	40,000	40,000	40,000	45,000	45,000	45,000	45,000	45,000	
Capesize 170,000 dwt	40,000	40,000	40,000	40,000	40,000	45,000	45,000	45,000	45,000	45,000	
Capesize 170,000 dwt	40,000	40,000	40,000	40,000	40,000	45,000	45,000	45,000	45,000	45,000	
Capesize 170,000 dwt	40,000	40,000	40,000	40,000	40,000	45,000	45,000	45,000	45,000	45,000	
Total Revenue (per day)	160,000	160,000	160,000	160,000	160,000	180,000	180,000	180,000	180,000	180,000	
Operating Expenses											
Capesize 170,000 dwt	2%	5,500	5,610	5,722	5,837	5,953	6,072	6,194	6,318	6,444	
Capesize 170,000 dwt	2%	5,500	5,610	5,722	5,837	5,953	6,072	6,194	6,318	6,444	
Capesize 170,000 dwt	2%	5,500	5,610	5,722	5,837	5,953	6,072	6,194	6,318	6,444	
Capesize 170,000 dwt	2%	5,500	5,610	5,722	5,837	5,953	6,072	6,194	6,318	6,444	
Total OPEX (per day)		22,000	22,440	22,888	23,348	23,812	24,288	24,776	25,272	25,776	
Revenue Days											
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Capesize 170,000 dwt		350	350	350	350	350	350	350	350	350	
Total Revenue Days		1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	
Operating Days											
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Capesize 170,000 dwt		365	365	365	365	365	365	365	365	365	
Total Operating Days		1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	
Bank Loan											
Principal Installments		22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	11,000,000	11,000,000	11,000,000	11,000,000	
Interest	6.50%	14,040,000	12,610,000	11,180,000	9,750,000	8,320,000	6,890,000	6,175,000	5,460,000	4,030,000	
Balloon	(-)									51,000,000	
Loan O/S	216,000,000	194,000,000	172,000,000	150,000,000	128,000,000	106,000,000	95,000,000	84,000,000	73,000,000	62,000,000	
Cash Flow Projections											
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenues		56,000,000	56,000,000	56,000,000	56,000,000	56,000,000	63,000,000	63,000,000	63,000,000	63,000,000	63,000,000
OPEX	(-)	8,030,000	8,190,600	8,354,120	8,522,020	8,691,380	8,865,120	9,043,240	9,224,280	9,408,240	9,596,580
Operating Cash Flow		47,970,000	47,809,400	47,645,880	47,477,980	47,308,620	54,134,880	53,956,760	53,775,720	53,591,760	53,403,420
Principal & Interest		36,040,000	34,610,000	33,180,000	31,750,000	30,320,000	17,890,000	17,175,000	16,460,000	15,745,000	15,030,000
Free Cash Flow		11,930,000	13,199,400	14,465,880	15,727,980	16,988,620	36,244,880	36,781,760	37,315,720	37,846,760	38,373,420
Vessels Appraisal											180,000,000
Balloon	(-)										51,000,000
Net Cash Flow		11,930,000	13,199,400	14,465,880	15,727,980	16,988,620	36,244,880	36,781,760	37,315,720	37,846,760	167,373,420
Equity IRR: 28,42%	-72,000,000	11,930,000	13,199,400	14,465,880	15,727,980	16,988,620	36,244,880	36,781,760	37,315,720	37,846,760	167,373,420

(II) List of Banks Participating in Greek Shipping Finance: 2004

Number		Number		
	Greece		Holland	
1	National Bank Of Greece	25	ABN Ambro Bank	
2	Alpha Credit Bank S.A.	26	NIB Capital (DNI)	
3	Piraeus Bank	27	Fortis	
4	Emporiki Bank		France	
5	EFG Eurobank	28	Cai-Banque Indosuez	
6	First Business Bank	29	BNP Paribas	
7	Laiki Bank	30	Credit Lyonnais	
8	Cyprous Bank	31	BCV	
9	Omega Bank	32	Societe Generale	
10	Aegean Baltic Bank	33	Credit Foncier	
	Germany	34	Natexis/Caise Central	
11	Deutsche Schiffsbank		United Kingdom	
12	HSH Nordbank	35	The Royal Bank Of Scotland	
13	KFW	36	HSBC	
14	DVB Bank AG	37	Bank Of Scotland	
15	Bayerische Hypo Und Vereinsbank	38	ANZ Grindlays Bank LTD	
16	Commerzbank		Other	
17	Bremer Landesbank			Country
18	Nord L/B	39	Banca Popolare Di Novara	Italy
19	Frankf Spaar	40	Efibanka	Italy
	United States of America	41	KBC	Ireland
20	Citibank Shipping Bank S.A.	42	Kredietbank Luxembourg	Louembourg
21	JPMorgan Chase	43	Nordea Bank	Norway
22	Bank Of New York	44	Den Norske Bank	Norway
23	Debis	45	Credit Suisse	Switzerland
24	All First Bank	46	Viking Ship Finance	Switzerland
		47	Bank Of Ireland	Ireland
		48	Koexim	Korea

(Source: XRTC Business Consultants)

(III) Hellespont Syndicated Loan Facility Agreement

Group:	Hellespont Tankship Corporation	
Corporate Guarantors:	Beverly Corp. Alambra Corp. Tara Corp. Metropolis Corp.	
Subject Ships:	4 Secondhand Tanker Vessels	
Loan Date:	7/4/2003	
Termination Date:	26/4/2010	
Loan Duration:	7 years	
Facility Amount:	\$200.000.000	
Leader Bank:	JPMorgan Chase Bank	
Agent:	JPMorgan Chase Bank	
Lenders:	Citibank International PLC	\$14.600.000
	Credit Suisse	\$16.400.000
	Deutsche Schiffsbank Actiengesellschaft	\$24.600.000
	Fortis Bank (Nederland) N.V.	\$16.400.000
	Saudi American Bank	\$9.800.000
	Den Norske Bank ASA	\$32.800.000
	DVB Nedshipbank America N.V.	\$16.400.000
	JPMorgan Chase Bank	\$16.400.000
	The Royal Bank of Scotland	\$9.800.000
	ING Bank N.V.	\$16.400.000
	The National Bank of Greece	\$10.000.000
	Alpha Bank S.A.	\$16.400.000
Agency Fee:	N/A	
Other Fee:	N/A	
Margin:	1,375% p.a	
Repayment Schedule:	28 three-months installments of \$3.000.000 each and a final balloon payment of \$119.000.000	
Gross Tonnage:	234.006 tons	
Net Tonnage:	162.447 tons	
Year of Construction:	2003	
No of Mortgage:	25310	

(Source: Hellespont Steamship Corporation)

(IV) The NYSE Listing Costs: 2006

Type Of Fees	Categories	Distinctions	Charge
Transaction	Equity Transactions	System Orders under 2.100 shares	No charge
		First 5.000 shares	\$0,0023/per share
		5.001 to 690.000 shares	\$0,0001/per share
		Subsequent Shares	No charge
	Intra-Member Charges		1,20%
Fee Limitations	Equity Commissions		2,00%
	Monthly Fee per Firm		\$600.00
Listing	N/A		
Facility & Equipment	Facility Fees (annual)	30 Broad	\$9.00
		Blue Room	\$7.80
		Main Room and Garage	\$6.00
		QT Room	\$2.40
	Clerk Badge Fee (annual per clerk)		\$1.00
	Financial Vendor Services	ITPN User	\$480
		Non-ITPN Product	\$480
Booth Telephone System	Annual Telephone Line Charge	\$400	
	Single line phone and data jack	\$129	
System Processing	Access Fees	Remote	\$10.00
		Post Trade Processing Center	
		Dedicated Terminal	\$5.50
	Shared Terminal	\$2.75	
Off-hours Trading		No charge	
Market Data	N/A		
Registration & Regulatory	Registration Fees	Branch Office Fee	
		First 1.000 branches	\$350
		Next 2.000 branches	\$150
		Over 3.000 branches	\$125
	Registered Persons	New (per application)	\$65
		Transfers (per application)	\$43
		Annual Maintenance (per person)	\$52
	Credit Extensions	Amount per extension	\$4
		Statistical Reports	No charge
Trading Floor Regulatory Fee	Specialists (annual)	\$16.000.000	
	Non-Specialist Member Organizations (annual)	\$11.000.000	

(Source: The New York Stock Exchange Inc.)

(V) Estimation Of Vessels Cost: After 5 & 10 years

Capesize 170K 5 Year Old Secondhand Prices									
Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million
1990-01	39	1993-11	38.5	1997-09	34.42	2001-07	28.58	2005-05	70.5
1990-02	39	1993-12	38.5	1997-10	34.42	2001-08	26.75	2005-06	69.25
1990-03	39	1994-01	37.33	1997-11	34.42	2001-09	26.75	2005-07	64.5
1990-04	37	1994-02	35	1997-12	34.42	2001-10	26.75	2005-08	62.5
1990-05	36	1994-03	33.25	1998-01	34.42	2001-11	26	2005-09	61
1990-06	36	1994-04	33.25	1998-02	33.83	2001-12	27	2005-10	61
1990-07	35	1994-05	35.58	1998-03	33.83	2002-01	27.5	2005-11	60.5
1990-08	35	1994-06	35.58	1998-04	33.83	2002-02	27.5	2005-12	57
1990-09	34	1994-07	35.58	1998-05	33.83	2002-03	27.5	2006-01	53
1990-10	34	1994-08	35.58	1998-06	32.67	2002-04	28	2006-02	53
1990-11	33	1994-09	35.58	1998-07	31.5	2002-05	28	2006-03	54
1990-12	33	1994-10	35.58	1998-08	25.67	2002-06	28	2006-04	54
1991-01	33	1994-11	37.33	1998-09	28	2002-07	28	2006-05	56
1991-02	34	1994-12	37.33	1998-10	28	2002-08	28	2006-06	56.5
1991-03	34.5	1995-01	37.33	1998-11	26.83	2002-09	28	2006-07	60
1991-04	36.5	1995-02	37.33	1998-12	25.67	2002-10	27	2006-08	74
1991-05	39	1995-03	37.92	1999-01	26.83	2002-11	28	2006-09	76
1991-06	41	1995-04	37.92	1999-02	26.25	2002-12	29	2006-10	76.5
1991-07	42	1995-05	37.92	1999-03	27.42	2003-01	30.5	Average:	37,92
1991-08	43	1995-06	36.17	1999-04	27.42	2003-02	30.5		
1991-09	43	1995-07	34.42	1999-05	28.58	2003-03	32		
1991-10	44	1995-08	34.42	1999-06	28	2003-04	32		
1991-11	42	1995-09	32.67	1999-07	27.42	2003-05	32		
1991-12	42	1995-10	31.5	1999-08	27.42	2003-06	32		
1992-01	42	1995-11	32.67	1999-09	27.42	2003-07	33		
1992-02	42	1995-12	32.67	1999-10	29.17	2003-08	33		
1992-03	42	1996-01	32.08	1999-11	29.17	2003-09	35.5		
1992-04	40.5	1996-02	31.5	1999-12	29.17	2003-10	40.5		
1992-05	39	1996-03	30.92	2000-01	30.33	2003-11	44		
1992-06	39	1996-04	30.92	2000-02	30.33	2003-12	44		
1992-07	37	1996-05	29.75	2000-03	30.92	2004-01	60		
1992-08	37	1996-06	29.75	2000-04	30.92	2004-02	61		
1992-09	37	1996-07	29.17	2000-05	29.75	2004-03	60		
1992-10	34	1996-08	29.17	2000-06	28.58	2004-04	60.5		
1992-11	34	1996-09	28	2000-07	30.92	2004-05	53		
1992-12	34	1996-10	28	2000-08	32.08	2004-06	45		
1993-01	35	1996-11	28	2000-09	32.08	2004-07	52		
1993-02	33	1996-12	28	2000-10	31.5	2004-08	56.5		
1993-03	33	1997-01	32.08	2000-11	31.5	2004-09	56.5		
1993-04	33	1997-02	32.08	2000-12	30.33	2004-10	57		
1993-05	37.5	1997-03	32.08	2001-01	30.33	2004-11	63		
1993-06	38.5	1997-04	32.08	2001-02	29.75	2004-12	64.5		
1993-07	38.5	1997-05	32.08	2001-03	29.17	2005-01	66.5		
1993-08	38.5	1997-06	32.08	2001-04	29.17	2005-02	72		
1993-09	38.5	1997-07	33.83	2001-05	29.75	2005-03	72		
1993-10	38.5	1997-08	33.83	2001-06	29.75	2005-04	72		

Capesize 150K 5 Year Old Secondhand Prices									
Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million
1990-01	34	1993-11	34	1997-09	29.5	2001-07	24.5	2005-05	59.3
1990-02	33	1993-12	33	1997-10	29.5	2001-08	22.5	2005-06	58.25
1990-03	33	1994-01	32	1997-11	29.5	2001-09	22.5	2005-07	54.25
1990-04	32	1994-02	30	1997-12	29.5	2001-10	22.5	2005-08	52.57
1990-05	31	1994-03	28.5	1998-01	29.5	2001-11	21.87	2005-09	51.31
1990-06	30	1994-04	28.5	1998-02	29	2001-12	22.71	2005-10	51.31
1990-07	29	1994-05	30.5	1998-03	29	2002-01	23.13	2005-11	50.89
1990-08	29	1994-06	30.5	1998-04	29	2002-02	23.13	2005-12	47.94
1990-09	28	1994-07	30.5	1998-05	29	2002-03	23.13	2006-01	44.58
1990-10	28	1994-08	30.5	1998-06	28	2002-04	23.55	2006-02	44.58
1990-11	27	1994-09	30.5	1998-07	27	2002-05	23.55	2006-03	45.42
1990-12	26	1994-10	30.5	1998-08	22	2002-06	23.55	2006-04	45.42
1991-01	25	1994-11	32	1998-09	24	2002-07	23.55	2006-05	47.1
1991-02	26	1994-12	32	1998-10	24	2002-08	23.55	2006-06	47.52
1991-03	26	1995-01	32	1998-11	23	2002-09	23.55	2006-07	50.47
1991-04	27	1995-02	32	1998-12	22	2002-10	22.71	2006-08	62.24
1991-05	34	1995-03	32.5	1999-01	23	2002-11	23.55	2006-09	63.93
1991-06	36	1995-04	32.5	1999-02	22.5	2002-12	24.39	2006-10	64.35
1991-07	37	1995-05	32.5	1999-03	23.5	2003-01	25.65	Average:	32.36
1991-08	37.5	1995-06	31	1999-04	23.5	2003-02	25.65		
1991-09	38	1995-07	29.5	1999-05	24.5	2003-03	26.92		
1991-10	38	1995-08	29.5	1999-06	24	2003-04	26.92		
1991-11	37	1995-09	28	1999-07	23.5	2003-05	26.92		
1991-12	37	1995-10	27	1999-08	23.5	2003-06	26.92		
1992-01	37	1995-11	28	1999-09	23.5	2003-07	27.76		
1992-02	37	1995-12	28	1999-10	25	2003-08	27.76		
1992-03	37	1996-01	27.5	1999-11	25	2003-09	29.86		
1992-04	36	1996-02	27	1999-12	25	2003-10	34.07		
1992-05	35	1996-03	26.5	2000-01	26	2003-11	37.01		
1992-06	35	1996-04	26.5	2000-02	26	2003-12	37.01		
1992-07	33	1996-05	25.5	2000-03	26.5	2004-01	50.47		
1992-08	33	1996-06	25.5	2000-04	26.5	2004-02	51.31		
1992-09	33	1996-07	25	2000-05	25.5	2004-03	50.47		
1992-10	30.5	1996-08	25	2000-06	24.5	2004-04	50.89		
1992-11	30.5	1996-09	24	2000-07	26.5	2004-05	44.58		
1992-12	30.5	1996-10	24	2000-08	27.5	2004-06	37.85		
1993-01	32	1996-11	24	2000-09	27.5	2004-07	43.74		
1993-02	30	1996-12	24	2000-10	27	2004-08	47.52		
1993-03	30	1997-01	27.5	2000-11	27	2004-09	47.52		
1993-04	30	1997-02	27.5	2000-12	26	2004-10	47.94		
1993-05	34	1997-03	27.5	2001-01	26	2004-11	52.99		
1993-06	35	1997-04	27.5	2001-02	25.5	2004-12	54.25		
1993-07	35	1997-05	27.5	2001-03	25	2005-01	55.93		
1993-08	35	1997-06	27.5	2001-04	25	2005-02	60.56		
1993-09	35	1997-07	29	2001-05	25.5	2005-03	60.56		
1993-10	35	1997-08	29	2001-06	25.5	2005-04	60.56		

Capesize 150K 10 Year Old Secondhand Prices									
Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million
1990-01	n/a	1993-11	n/a	1997-09	19	2001-07	18	2005-05	53
1990-02	n/a	1993-12	21	1997-10	19	2001-08	16	2005-06	52
1990-03	n/a	1994-01	20.5	1997-11	19	2001-09	16	2005-07	45
1990-04	n/a	1994-02	19.25	1997-12	18.5	2001-10	15.75	2005-08	43
1990-05	n/a	1994-03	18.25	1998-01	18.5	2001-11	15	2005-09	40
1990-06	n/a	1994-04	18.25	1998-02	18	2001-12	16.5	2005-10	40
1990-07	n/a	1994-05	19.5	1998-03	18	2002-01	18	2005-11	40
1990-08	n/a	1994-06	19.5	1998-04	18	2002-02	18.5	2005-12	38
1990-09	n/a	1994-07	19.5	1998-05	18	2002-03	18.5	2006-01	35
1990-10	n/a	1994-08	19.5	1998-06	17.5	2002-04	19.5	2006-02	33
1990-11	n/a	1994-09	19.5	1998-07	16.5	2002-05	19.5	2006-03	33
1990-12	n/a	1994-10	19.5	1998-08	14	2002-06	19.5	2006-04	33
1991-01	n/a	1994-11	20.5	1998-09	15	2002-07	19.5	2006-05	35
1991-02	n/a	1994-12	20.5	1998-10	15	2002-08	19.5	2006-06	38
1991-03	n/a	1995-01	20	1998-11	15	2002-09	19.5	2006-07	44
1991-04	n/a	1995-02	21	1998-12	14.5	2002-10	19	2006-08	52
1991-05	n/a	1995-03	21	1999-01	14	2002-11	20	2006-09	56
1991-06	n/a	1995-04	21	1999-02	13.5	2002-12	20.5	2006-10	56
1991-07	n/a	1995-05	21	1999-03	13.5	2003-01	21.5	Average:	24.07
1991-08	n/a	1995-06	21	1999-04	13.5	2003-02	21.5		
1991-09	n/a	1995-07	20	1999-05	15	2003-03	22		
1991-10	n/a	1995-08	20	1999-06	15	2003-04	22		
1991-11	n/a	1995-09	19	1999-07	16.5	2003-05	22		
1991-12	n/a	1995-10	19	1999-08	16.5	2003-06	22		
1992-01	n/a	1995-11	19	1999-09	16.5	2003-07	22		
1992-02	n/a	1995-12	19	1999-10	17.5	2003-08	22		
1992-03	n/a	1996-01	18.5	1999-11	17.5	2003-09	23		
1992-04	n/a	1996-02	18	1999-12	17.5	2003-10	28.5		
1992-05	n/a	1996-03	17.5	2000-01	18.25	2003-11	30		
1992-06	n/a	1996-04	17.5	2000-02	18.25	2003-12	32		
1992-07	n/a	1996-05	16.5	2000-03	19	2004-01	43		
1992-08	n/a	1996-06	16.5	2000-04	19	2004-02	45		
1992-09	n/a	1996-07	16	2000-05	18	2004-03	45		
1992-10	n/a	1996-08	16	2000-06	17.5	2004-04	43		
1992-11	n/a	1996-09	15	2000-07	17.5	2004-05	38.75		
1992-12	n/a	1996-10	15	2000-08	19	2004-06	32.5		
1993-01	n/a	1996-11	15	2000-09	19.5	2004-07	36.5		
1993-02	n/a	1996-12	15	2000-10	19	2004-08	41		
1993-03	n/a	1997-01	17.5	2000-11	19	2004-09	45		
1993-04	n/a	1997-02	17.5	2000-12	19	2004-10	45		
1993-05	n/a	1997-03	17.5	2001-01	18	2004-11	46		
1993-06	n/a	1997-04	17.5	2001-02	18	2004-12	46		
1993-07	n/a	1997-05	17.5	2001-03	18	2005-01	51		
1993-08	n/a	1997-06	17.5	2001-04	18	2005-02	54		
1993-09	n/a	1997-07	19	2001-05	18	2005-03	54		
1993-10	n/a	1997-08	19	2001-06	18.5	2005-04	55		

Capesize 150K DWT 15 Year Old Secondhand Prices									
Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million	Date	\$ Million
1990-01	n/a	1993-08	n/a	1997-03	n/a	2000-10	n/a	2004-05	28
1990-02	n/a	1993-09	n/a	1997-04	n/a	2000-11	n/a	2004-06	23.5
1990-03	n/a	1993-10	n/a	1997-05	n/a	2000-12	n/a	2004-07	27
1990-04	n/a	1993-11	n/a	1997-06	n/a	2001-01	n/a	2004-08	30
1990-05	n/a	1993-12	n/a	1997-07	n/a	2001-02	n/a	2004-09	32
1990-06	n/a	1994-01	n/a	1997-08	n/a	2001-03	n/a	2004-10	32
1990-07	n/a	1994-02	n/a	1997-09	n/a	2001-04	n/a	2004-11	35
1990-08	n/a	1994-03	n/a	1997-10	n/a	2001-05	n/a	2004-12	35
1990-09	n/a	1994-04	n/a	1997-11	n/a	2001-06	n/a	2005-01	40
1990-10	n/a	1994-05	n/a	1997-12	n/a	2001-07	n/a	2005-02	42
1990-11	n/a	1994-06	n/a	1998-01	n/a	2001-08	n/a	2005-03	42
1990-12	n/a	1994-07	n/a	1998-02	n/a	2001-09	n/a	2005-04	42
1991-01	n/a	1994-08	n/a	1998-03	n/a	2001-10	n/a	2005-05	40
1991-02	n/a	1994-09	n/a	1998-04	n/a	2001-11	10	2005-06	39.2
1991-03	n/a	1994-10	n/a	1998-05	n/a	2001-12	10	2005-07	34.5
1991-04	n/a	1994-11	n/a	1998-06	n/a	2002-01	10	2005-08	32.5
1991-05	n/a	1994-12	n/a	1998-07	n/a	2002-02	10.25	2005-09	32.5
1991-06	n/a	1995-01	n/a	1998-08	n/a	2002-03	10.25	2005-10	32.5
1991-07	n/a	1995-02	n/a	1998-09	n/a	2002-04	10.25	2005-11	32.5
1991-08	n/a	1995-03	n/a	1998-10	n/a	2002-05	10.25	2005-12	28
1991-09	n/a	1995-04	n/a	1998-11	n/a	2002-06	10.25	2006-01	26.5
1991-10	n/a	1995-05	n/a	1998-12	n/a	2002-07	10.25	2006-02	22
1991-11	n/a	1995-06	n/a	1999-01	n/a	2002-08	10.25	2006-03	22
1991-12	n/a	1995-07	n/a	1999-02	n/a	2002-09	10.25	2006-04	22
1992-01	n/a	1995-08	n/a	1999-03	n/a	2002-10	10	2006-05	23.5
1992-02	n/a	1995-09	n/a	1999-04	n/a	2002-11	10.5	2006-06	26
1992-03	n/a	1995-10	n/a	1999-05	n/a	2002-12	11	2006-07	33
1992-04	n/a	1995-11	n/a	1999-06	n/a	2003-01	11.5	2006-08	39
1992-05	n/a	1995-12	n/a	1999-07	n/a	2003-02	11.5	2006-09	40.5
1992-06	n/a	1996-01	n/a	1999-08	n/a	2003-03	12.5	2006-10	40.5
1992-07	n/a	1996-02	n/a	1999-09	n/a	2003-04	12.5	Average	23,77
1992-08	n/a	1996-03	n/a	1999-10	n/a	2003-05	12.5		
1992-09	n/a	1996-04	n/a	1999-11	n/a	2003-06	12.5		
1992-10	n/a	1996-05	n/a	1999-12	n/a	2003-07	15		
1992-11	n/a	1996-06	n/a	2000-01	n/a	2003-08	15		
1992-12	n/a	1996-07	n/a	2000-02	n/a	2003-09	16		
1993-01	n/a	1996-08	n/a	2000-03	n/a	2003-10	20		
1993-02	n/a	1996-09	n/a	2000-04	n/a	2003-11	21		
1993-03	n/a	1996-10	n/a	2000-05	n/a	2003-12	22		
1993-04	n/a	1996-11	n/a	2000-06	n/a	2004-01	31		
1993-05	n/a	1996-12	n/a	2000-07	n/a	2004-02	32		
1993-06	n/a	1997-01	n/a	2000-08	n/a	2004-03	32		
1993-07	n/a	1997-02	n/a	2000-09	n/a	2004-04	31		

...after 5 years				
Vessel	d.w.t	Year	Type	Average Price
Capesize	170.000	5	S/H	37,92
Capesize	150.000	5	S/H	32,36
Capesize	150.000	10	S/H	24,07
Capesize	170.000	10	S/H	?

Premium 170 over 150 (5 years old) = $A.P_{170,5} / A.P_{150,5} - 1 = 37,92/32,36 - 1 = 1,1717 - 1 = 0,1717$

Capesize 150.000 dwt (10 years old), Second Hand : Average Price = 24,07

Capesize 170.000 dwt (10 years old), Second Hand: Average Price = Premium x $A.P_{150,10} + A.P_{150,10} =$
 $0,1717 \times 24,07 + 24,07 = 28,208 = A.P_{170,10}$

...after 10 years				
Vessel	d.w.t	Year	Type	Average Price
Capesize	170.000	5	S/H	37,92
Capesize	150.000	5	S/H	32,36
Capesize	150.000	15	S/H	23,77
Capesize	170.000	15	S/H	?

Premium 170 over 150 (5 years old) = $A.P_{170,5} / A.P_{150,5} - 1 = 37,92/32,36 - 1 = 1,1717 - 1 = 0,1717$

Capesize 150.000 dwt (15 years old), Second Hand : Average Price = 23,77

Capesize 170.000 dwt (15 years old), Second Hand: Average Price = Premium x $A.P_{150,15} + A.P_{150,15} =$
 $0,1717 \times 23,77 + 23,77 = 27,863 = A.P_{170,15}$

(Source: Clarkson Research Services Limited, 2006)

Greek Summary

Είναι αναμφισβήτητο γεγονός πως η πρώτη χώρα που μας έρχεται στο μυαλό όταν αναφερόμαστε στην παγκόσμια ναυτιλία είναι η Ελλάδα. Πάντοτε αποτελούσε ερωτηματικό για την διεθνή ναυτιλιακή κοινότητα πώς μια τόσο μικρή χώρα σαν την Ελλάδα είχε μια τόσο μεγάλη ιστορία στην παγκόσμια ναυτιλία, έχει σήμερα μια πολύ σημαντική παρουσία και απενίξει με αισιοδοξία το μέλλον. Πολύ μάλιστα υποστηρίζουν πως οι Έλληνες έχουν την ναυτιλία μέσα στο αίμα τους ενώ ένας Έλληνας εφοπλιστής κάποτε υποστήριξε πως οι Έλληνες έχουν “shipping DNA”. Η δική μου επαφή με την ναυτιλία ξεκίνησε το 2004 όπου και άρχισα να παρακολουθώ το μεταπτυχιακό πρόγραμμα του Τμήματος Ναυτιλιακών σπουδών του Πανεπιστημίου Πειραιά. Μέχρι τότε η μόνη επαφή που είχα με την ναυτιλία ήταν από τις ιστορίες και τις περιπέτειες που κατά καιρούς άκουγα να διηγούνται παλιοί ναυτικοί καθώς και από τις Ελληνικές δραματικές ταινίες της δεκαετίας του ‘60 και ‘70.

Η περίοδος στην οποία αποφάσισα να ασχοληθώ με την ναυτιλία χαρακτηρίστηκε από πολλούς και όχι αδικαιολόγητα ως περίοδος των μεγάλων επιδόσεων για την ελληνική και την παγκόσμια ναυτιλία. Βρισκόμασταν στην κορυφή ενός ναυτιλιακού κύκλου ο οποίος χαρακτηριζόταν από υψηλούς ναύλους και τεράστια κέρδη για τις ναυτιλιακές εταιρείες. Αποτέλεσμα ήταν η ταχύτατη αύξηση του ρυθμού των παραγγελιών νεόκτιστων πλοίων αλλά και η αγορά μεταχειρισμένων από την πλευρά πολλών ναυτιλιακών εταιρειών προκειμένου να καλυφθεί η συνεχώς αυξανόμενη ζήτηση χωρητικότητας ένα σημαντικό βέβαιο μέρος της οποίας προερχόταν από την χώρα με το μεγαλύτερο ρυθμό ανάπτυξης την περίοδο εκείνη, την Κίνα. Φυσικά δεν ήμουν τόσο τυχερός να διαθέτω την περίοδο εκείνη τον δικό μου στόλο αλλά η κατάσταση αυτή μου έδειξε τον δρόμο τον οποίο ήθελα πραγματικά να ακολουθήσω στο δικό μου ταξίδι και ο οποίος δεν ήταν άλλος από την ναυτιλιακή χρηματοδότηση.

Μπορούμε να διακρίνουμε διάφορες μεθόδους χρηματοδότησης της ναυτιλίας. Κάθε μια από αυτές έχει τα χαρακτηριστικά άλλοτε περισσότερο και άλλοτε λιγότερο σημαντικά για την ναυτιλιακή επιχείρηση, καθώς και τα πλεονεκτήματα και μειονεκτήματα της. Στόχος αυτής της διπλωματικής εργασίας είναι η σύγκριση της αγορά ενός πλοίου με ίδια και με ξένα κεφάλαια.

Για αυτό τον λόγο θα ξεκινήσω την ανάλυση μου με την μελέτη δύο διαφορετικών μορφών χρηματοδότης. Η πρώτη είναι η σύναψη ενός Κοινοπρακτικού δανείου και η δεύτερη η εισαγωγή της ναυτιλιακής εταιρείας στο Χρηματιστήριο. Για την ανάλυση μας θα χρησιμοποιήσουμε μια ναυτιλιακή μονάδα η οποία ενδιαφέρεται να χρηματοδοτήσει την αγορά τεσσάρων πλοίων τύπου Capesize και αντιμετωπίζει αυτό το δίλλημα. Η τελική της απόφαση όπως θα δούμε θα εξαρτάται από τον σκοπό για τον οποίο γίνεται η επένδυση καθώς και από τα εμπόδια τα οποία πιθανώς να συναντήσει στην πορεία η ναυτιλιακή επιχείρηση. Για να κάνουμε την ανάλυση μας πιο ενδιαφέρουσα θα χρησιμοποιήσουμε τρία διαφορετικά επενδυτικά σχέδια για την ναυτιλιακή μονάδα καθώς και μια σειρά από διαφορετικά σενάρια η μελέτη των οποίων θα βασίζεται στον Εσωτερικό Λόγω Απόδοσης (Internal Rate of Return, IRR) των συγκεκριμένων επενδυτικών σχεδίων.

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Δ. Π. Παπουλάκος

Author Note

Dimitrios P. Papoulakos graduated from Department of Economics, University of Patras in Greece with a Bachelor degree in Economics in 2003. From 2004 he is a post-graduated student in University of Piraeus, Department of Maritime studies in Greece. He has participated in seminars from important organizations (Germanisher Lloyd, Institute of Chartered Shipbrokers e.t.c.) and attended international conferences (Intertanko Athens Tanker Event, Global Shipbrokers Forum e.t.c.). He is also a holder of three scholarships from the Greek State Scholarship Foundation (I.K.Y) and his scientific interesting run on shipping economics and finance.