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Greek shipping and the crisis of the 1980's

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GREEK SHIPPING AND THE CRISIS OF THE 1980s

BY

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ABSTRACT

In 1982, Greek shipping plunged into a severe crisis; the size of the fleet declined dramatically and over 30% of the fleet was laid-up, catapulting many shipping companies into bankruptcy. The causes of the crisis were: The world recession, leading to regulation, protectionism, subsidization, and the growth of new competition, in the tramp shipping market. The erosion of the cost differential between Greek shipping and other maritime nations of the world. The specialization and containerization of the world fleet. The old age and other characteristics of the Greek fleet, which exacerbated the crisis. Greek shipping, with its long history and the expertise, diligence, and supreme opportunism of its dynamic shipowners, will survive the crisis.
Since the dawn of our history when the Hellenic race began to mature, seamanship has been one of the strongest characteristics of the Greeks, and the most effective means of carrying on their struggle for survival. The sea has been for them the breakwater that stems the tide of barbarism which, only too often, threatens to overflow their land, the rock on which their material and spiritual civilization is largely founded.

ANDREAS LEMOS
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## GLOSSARY

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GLOSSARY

GLOSSARY OF SHIPPING TERMS

-B-

BALLAST A ship is said to be 'in ballast' when she is on a non-cargo carrying voyage.

BALTIC EXCHANGE Establishment in London, where shipbrokers representing shippers shipowners meet to discuss business. The only shipping market of its kind.

BAREBOAT CHARTER See 'DEMISE CHARTER'.

BILL OF LOADING This is a negotiable document of title, serves as a receipt for the goods shipped, incorporates a description of the goods and terms of carriage and is evidence of the contract of carriage.

BROKERAGE The remuneration paid to brokers for their intermediation in negotiating and arranging a charter. It is expressed as a given percentage of the freight of hire payable to the shipowner. Brokerage commission today is 1.25%.

BULK CARRIER A single-deck dry-cargo ship.

BULKHEADS These are vertical partitions or walls. All ships must have a specified number of bulkheads depending on their length. By dividing the ship into water-tight divisions they reduce the danger of sinking if one compartment is holed. They also reduce the risk of fire spreading.

BUNKERS The ship's fuel. The term derives from the word 'bunker', ie the storage space for coal-fuel.
CASUALTY RATE  Percentage of vessels within a fleet, over a certain period, that have sunk or broken-down.

CHARTERER  The person who hires or fixes the vessel.

CHARTER PARTY  The contract between the charterer and the shipowner which sets the terms under which a ship is hired and/or cargo carried.

CLASSIFICATION SOCIETIES  Societies whose main function is to survey and classify merchant vessels, specify standards for their construction, and provide a world-wide technical service. To maintain her classification a vessel must be subjected to regular surveys and maintain her standard.

CLOSED SHELTER DECKER (CSD)  This type of vessel has an additional deck over the main deck called the shelter deck, up to which extend all the watertight bulkheads.

CROSS-TRADERS  Vessels involved in the transportation of cargo between two countries, excluding that of the vessels registry.

CONTRACT OF AFFREIGHTMENT  A charter whereby the shipowner or operator contracts to transport a certain quantity of cargo at a fixed freight rate during a specified period between agreed ports or areas at agreed intervals, in agreed quantities, by means of his own and/or chartered vessels.
GLOSSARY

DEAD FREIGHT  Payment for space booked by the charterer but not used.

DEADWEIGHT TONNAGE (DWT)  The deadweight tonnage expresses the number of tons (2,240 lbs) which the vessel is capable of carrying by way of cargo, stores, water, bunker fuel and crew when loading to maximum permitted marks.

DEMISE CHARTER  (or bareboat charter)  A charter whereby the charterer acquires virtually complete control of the vessel for a specified period paying all running and voyage expenses.

DEMMURAGE  Compensation paid at an agreed rate by the charterer to the shipowner when the time prescribed in the voyage charter party for loading or discharge is exceeded.

DERRICKS  Cranes which are used on general cargo ships to lift the cargo on and off.

DESPATCH  A reward paid by the shipowner to the charterer when a vessel loads or discharges in less than the prescribed time in the voyage charter party.

DRAFT  Depth a vessel lies under the water. Will differ with the load of ship and type of water (ie, fresh, tropical, salt, etc). Different seasons also require different drafts.

DRY CARGO VESSEL  A vessel specially designed for the carriage of general and/or bulk cargoes.

DUNNAGE  Bits of wood, sacking, inflatable rubber bags and anything else which is used to prevent
damage to the cargo.

**FIX**  A vessel (or cargo) is 'fixed' when a suitable cargo (or vessel) is found and the charter party is signed.

**FLAG OF CONVENIENCE (or OPEN REGISTRY)** A country whose laws allow and in fact make it easy for ships owned by foreign nationals to register under and fly their flag.

**FLAGS OF DISCRIMINATION** Flags of countries that give various forms of protection to their ships.

**FLAG OF REGISTRATION** Flag of the country in which the ship is registered.

**FREIGHT (or FREIGHT RATE)** The cost of shipping services paid by the charterer to the shipowner.

**GENERAL AVERAGE** One of the oldest terms in marine insurance and mentioned in Aristotle's Nichomachian Ethics, it states that if the maritime adventure is in peril and the captain decides to sacrifice the ship or cargo for the common good of all parties who gain by the safe completion of the voyage make a contribution to reimburse the one who has suffered the sacrifice.

**GROSS REGISTERED TONNAGE (GRT)** The gross registered tonnage expresses, with some exceptions, the total space enclosed in the vessel. It is measured in units of 100 cubic feet.
GLOSSARY

-H-

HUSBANDRY  I.e. keeping the ships seaworthy.

-I-

INDUSTRIAL CARRIER  See MERCHANT VESSEL.

-L-

LAID-UP  An unemployed vessel which the shipowner has chosen not to operate, and has removed crew, anchored, in a safe place, and left watchmen.

LIGHT DISPLACEMENT  The weight of a vessel which is completely equipped, but excluding stores, bunkers, and cargo.

LIBOR  London Inter-Bank Offered Rate, i.e., the interest rate the banks charge each other. It is continually changing and indicates the present cost of money.

LINER  A vessel which provides a scheduled service at regular advertised intervals between specified ports. The owners offer space to cargo or accommodation to passengers at a cost which can be quoted from a fixed tariff.

LINER CONFERENCE  A cartel organized between shipowners to keep competition down on a certain route where liner vessels operate.

-M-
MARITIME LIEN A preferred claim against a ship or other maritime property which can be made effective by the seizure of the property in question. It is attached to the object over which it is claimed in the sense that it is invariably unaffected by change of ownership.

MERCHANT (COMPANY) VESSEL (or INDUSTRIAL CARRIER) A vessel belonging to a large commercial or industrial company and satisfying its own needs for moving goods.

NEW CONSTRUCTION The construction of a new vessel by a shipyard.

O.B.O. An Oil, Bulk, and Ore carrier.

O/O An Ore or Oil carrier.

OPEN REGISTRY See FLAG OF CONVENIENCE.

PANAMAX Panamax class vessels are the largest vessels that can use the Panama Canal. (Around 60,000 DWT)

P & I CLUBS Protection and Indemnity Associations. These are mutual insurance clubs formed by shipowners to insure themselves against third party liability, which is not covered by the usual policies in the
marine insurance markets. The claims on these Clubs are met by financial calls on member-shipowners at regular intervals, based upon the gross tonnage of the ships entered.

P & I BACKCALLS A financial back-call is made when liabilities of a P & I Club have been ascertained and exceed the amount collected by the regular calls.

ROLL-OVER LOAN Loan where the interest rate is received at intervals as per agreement, i.e., LIBOR plus margin.

RO-RO Roll-on/Roll-off vessels, such as car passenger ferries.

RUNNING EXPENSES Vessel costs which include manning, insurance, repairs and maintenance, stores, administration expenses, and reserves for contingencies and P & I back-calls.

SAFE PORT A port from which a vessel can load or discharge without danger or complication.

SHIPBROKER A shipbroker is a person who is involved in one or more of the following activities: (1) as an intermediary between seller and purchaser of a ship, or between consignors of cargo and shipowners. (2) as an intermediary in the chartering of ships. (3) as a ship's agent.

SHIPPER Somebody who has cargo that needs to be shipped
and is, therefore, looking for a vessel.

SPOT A term used for a vessel which is so positioned that it can start loading immediately. SPOT FREIGHT is the freight rate paid for such a fixture, and is usually higher than the going rate.

STEVEDORES Dock workers that load and discharge vessels.

TANKER A vessel specifically designed for the carriage of liquid cargo.

TIME CHARTER A charter whereby a ship is hired for a specified period to the charterer, who may then (within the limits of the contract) use the ship as he pleases. The owner meets the running expenses, while the charterer pays for the voyage costs.

TRAMP TIME CHARTER INDEX Combined freight rate index for dry cargo carriers.

TRIP CHARTER A charter whereby a vessel is time and/or voyage chartered specifying delivery and re-delivery of the vessel in named ports or areas and invariably specifying intended cargo and voyage. The shipowner receives an agreed upon rate of daily hire or freight respectively, depending on trading areas.

TWEEN-DECKER A type of vessel with an additional deck - a 'tweendeck' provided below the main deck. This deck runs the full length of the vessel on both sides.
ULCC Ultra Large Crude Carriers - Tankers above 300,000 DWT.

VICTUALS Food and provisions for the crew.

VLCC A Very Large Crude Carrier. Most commonly 250,000 DWT, used in the carriage of crude oil.

VOYAGE CHARTER A charter whereby a ship is contracted for the carriage of cargo between specified ports or areas. The owner pays for running and voyage expenses.

VOYAGE EXPENSES Vessel costs, including bunker expenses, port charges, and canal dues.

WORLDScale A schedule of freight rates intended to produce the same daily revenue irrespective of the voyage performed. Variables such as bunker charges and port dues are allowed for in accordance with the schedule devised and revised by a regulating organization.
CHAPTER ONE
INTRODUCTION
1982 witnessed a dramatic decline in the fortunes of Greek shipping. After many years of constant growth, the Greek-owned fleet declined, for the first time, with the loss of 410 ships from a total of 4,587 ships. Although Greek-owned tonnage, at 53 million Gross Registered Tons, still ranked first in world terms, the Greek flag fell to second place among the traditional maritime nations of the world, with Japan in the lead. At the same time, over a quarter of the fleet was laid-up and freight rates reached lower levels than had been common in the early 1970s. The Greek shipping community faced severe problems of bankruptcy and seamen, for the first time in many years, faced the prospect of unemployment. In short, Greek shipping had plunged into crisis.

Crisis and adversity were by no means new to Greek shipping. The history of Greek shipping, as the Greek's affinity to the sea, finds its genesis in the third millennium BC, and six times before the fleet has been in the throes of crisis. First, with the Roman Conquest; then with suppression under the Turks, followed by the War of Independence in 1821, the advent of steam at the turn of the 19th century, and the two great world wars. Each time, the Greeks have turned adversity into advantage, leaving the
crisis behind it to pursue unprecedented rates of growth. And now Greek shipping was faced with a new crisis.

What were the causes of this new crisis, and, perhaps more important, what is to happen to Greek shipping in the future? The reasons for the crisis were multiple, as were its implications. Severe recession throttled the world economy, dramatically reducing the quantity of seaborne trade, upon which shipping revolved. Protectionism and subsidization, as well as technological innovation, were rampant as nations either tried to make a place (LDCs) or retain a place (Eastern and Northern European countries) in world shipping. And, piece by piece, the comparative advantage in shipping, which Greece had enjoyed for so long, was slowly being dismantled.

Greece's comparative advantage in shipping, reflected in an operating cost differential, enabled them to transport cargo at lower costs than rival maritime nations. This comparative advantage was founded on the employment of relatively cheap and high-quality crews; on the use of cheap capital equipment; on the payment of low taxes; on the use of flag of convenience registries; and, most importantly, on extraordinary hard work and expertise, owing to the fact that Greek shipowners all started, and worked their way up from, the decks and holds of vessels both new and old. With the continued erosion of this comparative advantage, the future for Greek shipping appears bleak.
The present crisis, and the problems facing Greek shipping today, are the subject of this thesis. Chapter Two discusses the history of Greek shipping, from the third millennium B.C. with the arrival of Eteocretans in Greece, to the post-World War II period, illuminating the various characteristics of Greek shipping along the way. Appendix 3 contains a chronology of Greek history, incorporating the crises of Greek shipping. Chapter Three analyzes these characteristics of Greek shipping, and the problems they have created. Appendix 1 describes the different types of ships in the Greek and world fleet, while Appendix 2 provides a description of the various charter parties. Chapter Four discusses the decade prior to the present Crisis, which in itself was no smooth ride for Greek shipping. Chapter Five deals with the crisis itself. A glossary is provided at the beginning of the thesis to help with shipping terminology, some of which might be new to readers. Finally, Chapter 6 concludes.

For those without first hand experience of the Greek shipping community, this conclusion might, in light of the catalogue of doubts and problems stacked up against Greek shipping, appear to be out of place. For those that, quite rightly, believe that a scholarly thesis should be based on factual analysis, this conclusion, unsubstantiated as it is, might also appear out of place. However, the author, in his reconciliation of the facts as presented in this thesis and
his many encounters with shipowners, brokers, operators, captains, politicians, and other members of the Greek shipping community, firmly believes that Greek shipping will survive, once again riding the crest of that wave, which, since the dawn of Greek history, hard work and supreme opportunism have guaranteed theirs.
CHAPTER TWO
MASTERS OF THE SEA
The severity of the situation facing Greek shipping today can only be understood in the context of the whole history of the Greek Merchant Marine. Lemos, in his book "The Greeks And The Sea", writes that "the Greek ship has always been an inexhaustible fountain of strength and wealth to our nation. In every historic moment of our national life our merchant navy, fully organized, was there, ready to sacrifice everything for the Motherland: crews, ships and toil."¹ The analysis of the history in this chapter bears witness to this statement. The fleet, since its genesis along with the Greek nation in the third millennium BC, has endured six crises - each one reducing it to a handful of vessels. After each crisis the fleet has been rebuilt, stronger and better than it was before, so that today it ranks among the largest fleets in the world. In the face of adversity, Greek shipping has excelled. The traits and characteristics of Greek shipping that have led to its dynamic survival are illuminated throughout this chapter and discussed in detail in the next chapter. They are all grounded, as will become evident, in the supreme opportunism and diligence of the Greek seafaring people.

The origins of the Greeks are clearly reflected in legend, mythology, and in the remains of archeology. The early inhabitants came in various waves from the North settling on the Peninsula. The first settlers, the Eteocretans,

¹ Lemos, A., The Greeks And The Sea, 1976, p.3
as Homer called them, the aborigines of Crete, were immediately attracted to the sea. Greece is a country surrounded by sea, and with a myriad of islands. Over 1900 years ago Strabo wrote that "the sea presses in upon the country with a thousand arms", and ascribed much of the spirit of the people to this fact. And indeed this is true. The Eteocretans came down from the mountains to the sea and willed to test its disposition. They realized that in boats they could cross to the nearby islands and later to the mainland beyond. They became mariners—learning the peculiarities of the sea, its times and tides, and how to live with it in close communion. With the advent of bronze, which made the construction of stronger and larger vessels possible, in the second half of the third millennium BC, the Eteocretans, under the leadership of the Minoans, built up a notable sea power in the Aegean. Trading with Cyprus, Syria, Egypt and other Mediterranean ports, they amassed great wealth. They were the masters of the sea.

In the sixteenth century BC, the Achaeans came from the North, as the Eteocretans had done earlier. They, too, soon learnt to master the sea. They improved on the Minoan ships and, in time, superseded the Eteocretans. In 1100 BC, the Achaeans, after staunch resistance, were displaced by

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2 Sophocles, History of Greece, P.4
3 It is to the Achaeans that the mythical "Argo" is accredited.
the Dorians. Those Achaeans who preferred not to remain in Greece under the supremacy of the Dorians emigrated, leading to an intensification of shipbuilding activity. When the emigrants disembarked elsewhere, they realized that shipping, which had previously been a part of their lives, was now going to be their only means of survival. And so Hellenic ports developed all over the Mediterranean. On the Greek Peninsula, a relatively peaceful period ensued, from the eighth to the sixth century BC. The merchant fleet prospered. It served three main purposes: First, trade - ensuring a high standard of living for the Greeks; second, defense and; third, a means of conveyance of the surplus population or of those forced to move, thus providing a solution to social problems. The variety of ships used by the early Greeks bears evidence to the high level of development shipbuilding had attained in antiquity. The most popular ship, initially, was the "Pentacontore". She was open for most of her surface and was propelled by a bank of fifty oars - twenty-five on each side - with one or two auxiliary sails. She was superseded by a larger ship, the "Hecatontore", with a bank of one hundred oars - fifty on each side. She was faster than the Pentacontore, but the problem of increasing speed with a parallel increase of displacement, which was the basic problem of shipbuilding at that time, did not find its solution in the Hecatontore.

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4 see L. Whibley, A Companion to Greek Studies, P.475-492
Better results were achieved with the "Bireme", with two banks of oars on each side, one above the other, which followed the Hecatontore. The Bireme served as the basis for construction of other types of ships: The Trireme in the seventh century and the Quinquereme, Octoreme, and the Decareme during the rule of the Ptolemys in Alexandria. Literally, the Quinquereme, Octoreme, and the Decareme would be vessels with five, eight, and ten banks of oars respectively. The existence in ancient times of vessels of such epic proportions is very hard to accept. A Decareme, for example, would require one thousand oarsmen, five hundred on each side! What is more probable is that the Octoreme and Decareme were mutations, on a larger scale, of the Bireme and Trireme, and that mythical sources were prone to exaggeration.

During the fifth century, the Median Wars with the Persians were waged in the bosom of Hellenism. The Greek fleet contributed greatly to Greece's victory in these wars. Most notable were the victories at Artemisium and at Salamis, when the Persians came against the Greeks with 1207 triremes and 3,000 carriers and were met by 271 triremes and 378 carriers. The fleet's contributions were not only in naval battles, but also in the transportation of troops, supplies, and intelligence to the fighting Greek armies on land.

5 A.Lemos, 1976, p.27
With the Persians gone, trade flourished and the ground was paved for the "Greek Miracle", which took place when Athens reached its zenith of prosperity. Athens and Sparta dominated Greece until the third century BC. This was the period when Piraeus, the center of Greek shipping today, was established as a port. Unfortunately, during this period, Athens and Sparta did not live in harmony, but rather clashed with each other, both striving for supremacy. This rivalry led to many bloody wars - the Peloponnesian War being the worst. The Spartans had the advantage over the land, but the Athenians had it over the sea. It was, thus, that the fleet kept the democracy of Athens on equal terms with the formidable land forces of oligarchic Sparta. Finally, in 404 BC, the Spartans overcame the might of Athens and replaced them, in what is known as the "Rule of the Thirty", as the supreme power in Greece.

Alexander the Great followed the hegemony of Sparta. Alexander was a land man rather than a mariner. He fought his battles on land and used the fleet only for the transportation of troops and supplies. This left the navy to expand its trade, especially with Egypt, turning Alexandria into a huge, rich port, dominated by Greeks, until well after Alexander had succumbed to mortality. This prosperity declined with the defeat of Anthony and Cleopatra by Octavius. The Hellenic dynasty of Alexandria was abolished.

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6 A.Lemos, 1976, p.29
Greece itself, the dynasty was superseded by the Achaean Confederation. This lasted until 146 BC and the Roman Conquest of Greece.

The subjection of Greece to the Romans was the first crisis of the Greek merchant fleet. The activities of the Greek cities became more and more limited, as did the opportunities of sea-trade; on top of this, Greece had been a battle field for many years and the fleet had been severely diminished. Opportunities for further development were, for the time being, thwarted, under the watchful eyes of the Romans. At times, sea-trade virtually ground to a halt, the fleet barely managing to exist. In 395 AD, Theodosius' division of the Roman Empire into the Byzantine East and the West, gave the Greeks more freedom, as had the founding of Constantinople a number of decades earlier, and enabled the Greek fleet to grow again. As the Greeks had by now realized, a large fleet was vital to them - first, for defense, and, second, for financial and trade reasons. As the Greeks had such good knowledge of the sea they began to command a progressively more important role in the Byzantine merchant fleet. Since the period was also characterized by a change from oars to sails, which required much skill in both sailing and navigation, the Greeks had an added advantage: They were the masters of the sea.

The decline in the Byzantine navy marked the beginning of the downfall of the medieval state of Byzantine. This
The coming of the Turks was the second crisis of the Greek merchant fleet. Under Byzantine rule, the Greeks had built up a sizeable fleet, and when the Byzantine empire fell, the majority of the merchant fleet was owned by Greeks. The Turks were aware of the threat of a Greek fleet. They forced the Greeks to relinquish their freedom of the seas, using the fleet in their own struggle with the western navies commandeering ships and conscripting both shipwrights and seamen. Under these circumstances the activities of the Greek merchant fleet came to a standstill, to disappear completely in the areas conquered by the Turks after the Fall of Constantinople.

The period during which the Greek nation remained under Turkish rule is remembered as the "longest and darkest in Greek history". The Turks met strong resistance and provoked an incessant struggle for freedom. Gradually, as the dark centuries rolled by, the Greeks re-emerged with the tool that would bring them freedom - their own fleet. The Turks, having retained the nomadic nature of their Arabic forefathers, never came to terms with the sea to the extent the Greeks did, and, as much as they resisted it, shipping fell into the hands of the Greeks.

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7 Ibid., p.47
8 Ibid., p.50
The internationalization of the seas brought more opportunities to Greek shipping. After the War of Polish Succession (1738), Venice, being in competition with France, made the port of Corfu a center of free trade for transit purposes. Traffic quickly developed between Greece and Corfu. This development might be considered the debut of the Greek merchant fleet on the stage of world trade. Prior to Turkish rule intra-Greek trade had been predominant. Now, the Greeks had entered what would come to be called the tramp market, as cross-traders. After Corfu, other trading opportunities developed. The competition between France and Britain after the War of Austrian Succession (1740) created conditions favorable to Greek shipping. Greeks have always been fast to capitalize on the woes of others. This is an important dimension of their supreme opportunism and survival dynamic, and one which they still use successfully today (witnessed by their use of the war-ridden Persian Gulf).

At the end of the seventeenth century the power of the Ottoman Empire began to wane. This was reflected in defeat in battle at Senta, uprisings of other enslaved peoples from the gates of Vienna to Morocco, along with disputes with the Russians. This decline gave the Greeks additional opportunities upon which to capitalize. The Treaty of Kuchuk Kainarzi (1774), which was the result of the Russo-Turkish

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9 A.Lemos, The Greeks and the seas, p.60
War (1769-74), provided for the free-access of all ships under the Russian flag to all seas of the Hellenic region. Through a secret clause in the Treaty, the Greek fleet was given the right to fly the Russian flag on their ships, thereby giving them free-access to the seas of the Turkish Empire. Since the Russians were also Britain's allies, Greece had access to the whole Mediterranean, and oceans beyond.

These opportunities led to the "Renaissance" of Greek shipping after centuries of dormancy. Intra-Greek trade was now augmented, and the Greeks continued to operate in the tramp market, where greater profits were to be made. Piracy was prevalent at this time, a phenomenon which, rather than being detrimental to the Greek cause, actually aided it. First, it meant that the Greek shipwrights constructed faster and better vessels. Second it meant that the crews were better trained. Third, and most importantly, the Turks allowed them to arm their ships - a privilege the Turks would later regret, for these weapons were ultimately to be used against them in the Greek fight for liberty.

The French Revolution in 1789, and the Napoleonic wars that ensued, gave another impetus to Greek shipping, with the unprecedented boom in sea-trade. As the Greek seamen sailed the oceans, they were impressed by the ideas of liberty embodied in the French Revolution. They returned obsessed with these ideals, and the fire of patriotism
burned strong in the heart of Greece. The Greeks, under the banner of liberty, became involved in some of the hostilities. They helped the French run the British blockade, and great adventures of derring-do are recorded. Lemos writes that the Greeks' motives were "moral rather than material" and that "these daring adventures did much to cultivate the character and strengthen the self-confidence and aggression of the Greek sailors who were later to become fighters of 1821".  

Crews risked their lives for their wages, and the owners let them share in the profits that they earned. A separate agreement was made between the owners and crews as to the percentage of profits each member was entitled to. Andreadis writes that the cooperative organization of the Greek seamen was the reason for the "excellent position of the Greek fleet throughout the Mediterranean in the late eighteenth and nineteenth century". Each seaman having a corporate share in the ship or cargo, he was interested in its success and so became cautious and thrifty. Paparregopoulos writes that not only did the sailor do his utmost to serve his ship, but he also improved his skills continually so that, as time went on, he developed from a first-class follower of orders into an excellent sea-captain. This brotherly cooperation of rich and poor could not but lead to

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10 Lemos, 1976, p.63
11 see Vovolinis, Biographical Dictionary, Vol. C, P.236
the "moral elevation of the individual".\textsuperscript{12} Much can be learnt by today's shipowners from their forefathers in this field - although the internationalization of crews makes it harder. Not only were there cooperative schemes, but also loans to the seamen from the wealthy members of the community; these loans were generally not on interest, but on a profit sharing basis. This altruism on the part of the wealthy members earned them respect and admiration from their fellow-citizens, and they became pillars of society. The harmonious relations between capital and labour which characterized the shipping community of that time resulted in the improvement of the financial circumstances of all classes and made the thirst for education more acute and, to satisfy this, more schools had to be built.

During the first and second crises many Greeks had emigrated from Greece. These expatriates, with no other opportunities to exploit, had turned to shipping. By the nineteenth century, Greek colonies had sprung up in Venice, Naples, Marseilles, Vienna, Odessa, Moscow, and other commercial centers in Western Europe. Wheat trade was carried out almost exclusively by Greek merchants living in these communities and this made a remarkable contribution to the development of Greek shipping.

\textsuperscript{12} See K. Paparregopoulos, History of the Greek Nation, V, p.153
The third crisis, the Revolution against the Turks, was a crisis for the Greek merchant fleet, but not one for the nation. Greece regained its liberty, but, in the struggle for independence, its fleet suffered great losses. At the outset of the Revolution, in 1821, there were six hundred ships. By the end, only fifty remained. It was a sacrifice the Greeks will never regret, but still one made. The French Admiral Julien wrote of the merchant navy in the Revolution: "As for me, I hold Greek seamen in great admiration. They have done more for the liberation of their country than the Armatoles and Klephs. As a sailor, I am still moved by the wonderful feats of the Greeks and when I relate them, I lift up my voice in admiration". 13

Capo D'Istria, the appointed Governor of Greece, founded the new Greek state on the ruins left by the War of Independence. He looked with confidence to the future, being sure that the nation, under good guidance, would "discover its hidden resources". 14

By this, of course, he meant shipping. In 1833, Capo D'Istria paid the shipowners part of the renumeration due to them for the loss of their ships during the Revolution. This greatly benefited Greek shipping and the years after 1834 saw its rapid expansion. Elsewhere in the world, shipping was in a state of decline; this did not deter the

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13 J. de la Graviere, La station du Levant, from Lemos
14 See K. Paparregopoulos, p. 129
Greeks. They depended on shipping and being at the "hub of communication between Europe and the East", it was a challenge to the Greeks to build a fleet stronger than ever before.\(^{15}\) With Syra as its center, Greece became an important factor in trade between East and West. With the capital assistance of expatriates, the fleet expanded. They exported raw materials - grain and cotton - to the countries of Western Europe and imported industrial goods from these countries into Russia, Turkey, and other Eastern countries. They were, thus, once again, cross-trading in the tramp market.

The sudden growth of the Greek fleet aroused the jealousy of many foreign shipping companies. In France, the French Government in 1850 issued an official statement warning French underwriters against insuring cargoes carried on Greek ships as they were not considered trustworthy. There was no justification for this, except that the French wanted to keep a rival down, and were, thus, adopting a form of protectionism. The Greeks, however, were by no means inexperienced in facing adverse conditions and continued to prosper - regarding the French from then on with a certain amount of indignation.

During the second half of the nineteenth century, the harbingers of a fourth crisis were evident. The steam-engine, a combination of "iron, steel, and burning coal", as

\(^{15}\) See Lemos, 1976, p.94
popular phrase put it, became a major threat to the predominance of the sailing ship on the high seas. The sailing ship was to know better times until 1866, when it reached the peak of its prosperity.

The Crimean War (1853-56) meant considerable profit for the Greeks. This profit was consolidated by the activities of the Greeks in the navigation of the Danube, whose ports had become centers of the wheat trade. At the port of Braila alone, 606 Greek vessels were registered. It was on the Danube that the father of Greek shipping, Panagis Vallianos, took his first steps in the business and then sallied forth to his enterprising campaign of the conquest of the London shipping market. He established a thriving business (1866-7) in London, which later generated a large number of Greek shipping offices in the greatest shipping center in the world.

The proliferation of Greek shipping after the Crimean War provoked, once again, the jealousy of the Western nations. This time it was the British underwriters that attacked Greek shipping - not insuring any cargoes on Greek vessels. This was a serious threat to Greek shipping that had to be dealt with swiftly. First, Greek seamen and owners formed cooperative organizations, sharing in the profits - as they had done a century earlier. The amounts, however, earned this way were not sufficient to keep all the ships

16 A. Lemos, 1976, P. 103
operating and the majority of owners found themselves "in
great embarrassment".¹ Second, Vallianos came to the assis-
tance of Greek shipping: He shipped his goods exclusively on
Greek ships without any insurance. Soon the British under-
writers found it necessary to revise their policy and to
resume the insurance of Greek vessels. The crisis that had
threatened Greek shipping was, thus, averted.

At the end of the nineteenth century, the fourth crisis
arrived. The Greek sail fleet, which had grown rapidly in
the second half of the eighteenth century, was soon to made
obsolete by the advent of the steam ship. This transition
from sail to steam was by no means easy for the Greeks, but
vital to survival. The Greeks, who had for centuries been
masters of the sail, now had to become masters of steam,
iron, and, later, oil. Fortunately for them, the maritime
spirit, the supreme opportunism, and diligence, of their
race, handed down by age-long tradition and nurtured by the
natural environment of the country, enabled them to survive,
and reach pinnacles of efficiency in the world shipping
trade.

How was this transition accomplished? The shipping com-
munity rallied around, both in and out of Greece in an
endeavor to transform the merchant fleet. The transition was
strongest in the communities abroad. The first steam-ships
were bought by Vallianos. He also helped all Greek

¹ Ibid., p.104
shipowners wishing to acquire vessels - through loan facilities or by personal participation in the venture. In this way a sizeable fleet was built up in a short while. Old British vessels were bought at low prices, and with them the ambitious Greek seamen - masters, officers, and crews - made every effort to compete with the newly built vessels of rival foreign maritime nations. In the Danube ports, the Greek owners similarly acquired their own vessels and developed. On mainland Greece, conditions were much harder. But the owners there were well supported by merchants in the communities abroad, and ships were purchased. The Boer War (1899-1902) helped the transition by giving the Greeks an opportunity upon which to capitalize. Lemos wrote of the transition: "With his honesty, industry, skill, and moderation as his only guarantees, a Greek captain would manage to obtain a loan to which he added his meager funds in order to buy a ship of 1,500-3,500 GRT. When the ship was bought, captain and crew threw themselves heart and soul into the struggle to pay off the debt and make the ship their own, and so to buy a second ship better than the first". 18

The enormous potential of steam enabled shipbuilders to develop more specialized vessels. Steam navigation was divided into two branches (whereas sail ships had been multi-purpose): Cargo shipping and passenger shipping. Greek shipping tended to concentrate on the former. Shipping

18 Ibid. p. 110
companies, such as the Greek Steamship Company and Pan­taleontas & Co, sprung up in Greece and abroad. Once again Greek shipping was on the road to rapid expansion. By 1912 the Greek fleet consisted of 346 steamers totalling 407,000 GRT, ranking fifteenth in terms of tonnage and ships among the world fleets. An amazing performance and all indebted to private initiative.

The fifth crisis was triggered in 1911 by the Italo-Turkish War, followed by the First and Second Balkan Wars (1912 and 1913 respectively). During these wars the Greek fleet managed not to suffer too many casualties, in spite of the requisitioning of 95% of its fleet, and was of great assistance to the Greek cause. When World War 1 broke out in 1914, Greece remained neutral. Greek shipping profited much out of this neutrality, capitalizing, as in the past, on the woes of others. This profiteering, however, was not as great as it might have been, for Greece was torn by political strife. Caught in the cross-fire of opposing trends and ideas in the political field, the Greek owners were under severe pressure. Many sold their ships, especially in the first year. The government, observing this trend, prohibited the sale of ships, so that the size of the fleet would be maintained and could be used if Greece joined the War.

In 1917, when Greece did join the War, the merchant fleet suffered its fifth crisis. Its ships were requisitioned by the allies. Many were sunk, and, adding to these
the ones sold earlier, the fleet suffered a dramatic setback. During the first years of the War, the fleet had numbered 500 ships totalling 600,000 GRT. In 1919 she was left with only 282 vessels. Once again, the Greek fleet had been devastated.

At this stage the Greek Government intervened, to save shipping. It is important to note that all previous crises that the Greek fleet had suffered had been overcome by private initiative. This move by the state, therefore, was unprecedented; it also proved to be both a disastrous and inexperienced one. For they encouraged shipowners, through tax-breaks and other incentives, to promptly replace their lost tonnage. The problem was that the price of ships immediately after the War was extremely high, and the ships then bought soon lost nine-tenths of their value. Beside this, the compensation paid by the state for vessels requisitioned during the War, when it was finally paid, was almost worthless because the drachma had depreciated dramatically, being worth only a twentieth of what it had been.

The resilience and determination of the Greeks has been demonstrated many times in this chapter, and once again it came through, in spite of these adverse circumstances. From 1919 to 1921, 235 ships were added to the Greek fleet. However, in 1922, scarcely out of the crisis of 1917, "a disaster unprecedented in the history of the merchant marine befell the shipping world". For by the end of 1921 the pur-
chase value of ships and the freight rates had reached their highest points - and then, all of a sudden, both fell to their lowest levels. The economic climate that faced the shipping world in 1922 was in fact very similar to the one facing shipping today. Of the situation, the Governor of the National Bank of Greece, Demetrius Maximos wrote: 19

Greek shipping, this valuable factor in the economy and the life of our nation, has been the main victim of the present critical world situation. Sea transport has been reduced so much that almost a quarter of the world tonnage is laid-up. With freight rates so low and operating costs so high, expenses can hardly be covered. Under such working conditions considerable losses have been suffered. Day after day we hear of ships being laid up at various ports, and substantial amounts of Greek capital remain inactive, causing great damage to the nation. Let us hope that Greek shipping will once again weather the crisis with its characteristic endurance, and regain the prominent position it always had in the shipping world.

On top of this, the reputation of the Greek owner in the London insurance market was ruined by a statement to the effect that the crisis in shipping could largely be blamed on the unusual number of casualties in the Greek merchant fleet. Following the advice of Greek shipowners, the Ministry of Finance established a "Mercantile Marine Board" to investigate the problem. The thorough investigations of the Committee gave Lloyds increasing confidence in Greek shipping, and the measures taken by them against Greek shipping were gradually lifted.

19 In Lemos, 1976, p.134
Greek shipping finally left the 1917 crisis behind it in 1923, when economic conditions improved, and when the abortive Greek campaign in Asia Minor was terminated. The interwar years were a period of reconstruction for the Greek shipping community. Its wounds from the economic crisis and War were healed, its organization improved and rationalized, and it finally matured into one of the principle resources of the Greek economy. During this period, Greek shipowners continued operating as cross-traders in the tramp market, it being more suited to Greece's production and trade possibilities, as well as to the fragmentation which characterized Greek shipping.

Manolis H. Kulukundis was the personification of the reconstruction and revitalization of the Greek fleet. From his shipping office in London, he had a vision of a brilliant future for Greek shipping, and called on all seamen to turn this vision into reality. And so they did, with the Greek fleet growing rapidly once again. 1923 was the first post-war year when the fleet exceeded that of 1915. Conditions were never favorable during the interwar years. The Greeks, however, managed to increase and consolidate their fleet. Many of the problems they faced then, they face again today. For instance, during the period, Greek shipping was severely handicapped by the fact that it consisted of heavy, old ships burdened with extra insurance premiums. Technology was changing fast. In previous centuries, the Greeks had had
the advantage of being the foremost sailors and navigators in the world. Now this advantage was being turned against them and they had to learn from their technically advanced western neighbors. They coped characteristically well. During this period the world became relatively smaller, as ships speeds increased along with improved communication systems. English became the universal language of shipping. With these developments, Greek shipowners became more independent. Unfortunately, this independence led to irresponsibility, which started to give Greek shipping a bad name. To counter this, a Greek Shipping Cooperations Committee was set up, making owners responsible and answerable to their colleagues, and the Union of Greek Shipowners, founded during World War 1, was consolidated, both in Greece and in London.

The Second World War, which was heralded by a decline in the shipping trade and world transport, a fall in freight rates, and the laying-up of a considerable proportion of the world fleet, was to be the sixth crisis of the Greek merchant fleet. Many ships were requisitioned for the War and the Greek fleet loyally remained in the service of the allies until the final victory. This loyal service, once again, led to the destruction of the fleet. Of its 583 merchant ships totalling two million GRT, only 154 ships of 500,000 GRT remained by the end of the War, and many of these were in bad condition. Overall, 1,000 Greek vessels
CHAPTER 2

were lost.\textsuperscript{20} There was also a very heavy casualty rate among seamen. Of the War, Lemos wrote that: "It is the destiny of our merchant marine to pay the highest price for the freedom and welfare of our nation".\textsuperscript{21} And indeed this is true - three times in the 125 years of Greece's free life, the fleet was totally destroyed. What is more important, however, is that, each time, the fleet rose from its ashes to be stronger, larger and more profitable than ever before.

The post-war period was again one of reconstruction for the Greek fleet. The United States donated, in recompense, 100 Liberty type ship\textsuperscript{22} to the Greek cause - and later added seven tankers. For the owners that did not receive any of these ships, life was difficult. Because of the unstable political climate in Greece, American and other western banks were unwilling to lend to Greek registered owners. Under these circumstances, with their keen eye for survival, the Greeks resorted to the use of flags of convenience. This is a trend that has persisted up until today: When conditions to shipping are adverse at home, shipowners "deflag", in order to attain lower operating costs under another flag, of the likes of the Liberian or Panamanian flags. Deflagging in the post-war period enabled the Greeks to receive

\textsuperscript{20} National Statistical Bureau of Greece, Shipping Statistics, 1970, p.141

\textsuperscript{21} Lemos, 1976, p.181

\textsuperscript{22} See Appendix 1, MASS PRODUCED SHIPS OF WW1, for a description of the Liberty ship.
loans and expand their fleet. It also had unfortunate detrimental effects on the foundations of Greek shipping. For shipowning began to lose its national character, which had been so important to it, and become cosmopolitan. This badly damaged the loyalty, fraternity, and labor relations of Greek shipping. It also led to the increased employment of foreign crews, which further deteriorated labor relations. Whereas before shipowners had been sea-captains, now a new generation of shipowners was being reared — educated shipowner's sons, many of whom did not have the experience of the sea their fathers and forefathers had had. On the one hand, this was positive, as it meant that the owners were better prepared to keep abreast of technological innovation and modernization in shipping. On the other hand, the ostracization from the sea was dangerous and unprecedented, with potentialities for severe repercussions on Greek shipping.

* * *

Although the time span between the Roman Empire and the 1980s is immense, and although the Greek race today is by no means the same as it was then, the shipping crisis of the 1980s could be perceived of as a seventh crisis of Greek shipping. Whether the crisis will be dealt with in the same
spirit that the crises of old were, can only be answered by time.

What is certain, however, is that it is going to take more than a couple of dents in the hull of Greek shipping to bring the dynasty to an end.
CHAPTER THREE
DYNAMICS AND CHARACTERISTICS
CHAPTER 3

The history of Greek shipping, narrated in the second chapter, alluded to a number of prevalent characteristics in Greek shipping. Predominant among these characteristics, and ones that continue to have important ramifications today, are:

1) Dynamic growth after each crisis;

2) Greek shipowners' pursuance of the tramp shipping market;

3) Age of the fleet;

4) Entrepreneurial ownership;

5) Use of flags of convenience;

6) Expatriate nature of Greek shipping;

7) Mortgaging and debt.

In this chapter, each of these characteristics of Greek shipping will be analyzed in some detail. These characteristics, combined with the history of the first chapter, will provide the reader with an adequate insight into Greek shipping to comprehend the full extent and causes of the present crisis.
CHAPTER 3

DYNAMIC GROWTH AFTER EACH CRISIS

Figures 1 and 2 depict impressively the rebirth of the Greek merchant fleet following the fourth, fifth, and sixth crises; the fourth crisis caused by the advent of iron and steam in shipping, the fifth and sixth, by the two world wars. After World War 1, in 1919, the Greek fleet was left with 282 vessels. By 1935, in spite of the recession of the early 1920s, the UK coal strike of 1926, and the Great Depression of the 1930s, there were as many as six hundred vessels under the Greek flag alone. Although there is no data available on the quantity of vessels under foreign flags, one can assume that it was a sizable number. During the interwar period, Greek shipping offices were predominantly situated abroad, owing to greater availability of opportunity and the potentially damaging policies of the Greek government. With offices abroad, vessels were also registered abroad on flag of convenience registries. Following World War 1, the fleet was made up almost exclusively of tankers and dry cargo ships; there were few passenger ships. The explanation and implications of this will be analyzed under the next heading.

154 Greek vessels survived World War 2. By 1960, there were over 1,000 vessels in the Greek fleet, and in 1969 over 2,000 vessels. Tonnage (see Figure 2) increased from around half a million Gross Registered Tons (GRT) after the War to over eleven million GRT in 1969. If one includes foreign
flagged Greek-owned vessels, total tonnage exceeded 25 million tons in 1969. A spectacular achievement, not only on a Greek scale, but also on a world scale; if one looks at Figure 3, it can be seen that Greek shipping started to have a serious impact on world tonnage after World War 2. By 1969, total Greek-owned tonnage accounted for around 5% of total world tonnage. Looking at the inset histogram in Figure 3, one can see the percentage change of Greek and world tonnage between 1966 and 1975. The world fleet grew by 100%. The quantity of vessels under the Greek flag, during the same period, grew by more than 200%.

Commencing in 1900, if one excludes the war years, the growth of the world fleet was linear, reflecting the growth of the world economy and international trade. In comparison, the growth of the Greek fleet was anything but linear. It portrayed spectacular, dynamic growth, progressively capturing more and more of the world shipping market, and evolving into a major maritime nation of the world.

THE TRAMP SHIPPING MARKET

In the shipping market, a vessel can be operated as either a liner, a tramp, or an industrial carrier. ¹ A liner is a vessel that provides a scheduled service at regular adver-

¹ See P.M. Alderton, "Sea Transport", 1980, p. 103
1900-1969, Million Tons
Growth of World Fleet

Compared with Green Fleet

Percentage Change

Between 1960 and 1975

MERCHANT FLEET
tised intervals between specified ports. The owners offer space to cargo or accommodations to passengers at a cost which can be quoted from a fixed tariff. A tramp vessel is a chartered vessel carrying anything to anywhere. The cost of such shipping services is known as "freight" or the "freight rate". An industrial carrier is a vessel belonging to a large commercial or industrial company and satisfying its own needs for moving goods.

Greek shipowners operate almost exclusively in the tramp shipping market as cross-traders. The Greek's infatuation with the sea was described in the last chapter. Yet, intriguingly, they have little of their own trade to carry out. This means that they cannot operate, on a large scale, in either the liner market or as industrial carriers. The tramp market, therefore, provides the perfect opportunity for them to exploit and capitalize on. The Greek fleet thrives from cross-trading, carrying other countries exports all over the world. The extent of the cross-trade that Greek shipping is involved in can be seen in Figures 4 through 7. All shapes and sizes of vessels, varying from bulk carriers and ULCCs, to Ro-Ros, OBOs, and other specialized vessels, are used in this trade.

2 Ultra-Large-Crude-Carriers
3 Roll-on, Roll-off (ie, car ferries, etc).
4 Oil, Bulk or Ore Carriers
5 See Appendix 1 for analysis of ship types.
FIGURE 4
IRON ORE TRADE

Main inter-areas movements in million tonnes (metric tons), and
MTCM ton-miles in brackets. Only main routes are shown. Area
figures are totals including smaller routes not shown separately.

Source: Fearnley & Egers Chartering Co., Ltd, World Bulk Trades

FIGURE 5
COAL TRADE

Main inter-areas movements in million tonnes (metric tons), and
MTCM ton-miles in brackets. Only main routes are shown. Area
figures are totals including smaller routes not shown separately.

Source: Fearnley & Egers Chartering Co., Ltd, World Bulk Trades
FIGURE 6
WHEAT TRADE

Main inter-area movements in million tonnes (metric tons) and MT ton-miles in brackets. Only main routes are shown. Area figures are totals including smaller routes not shown separately.


FIGURE 7
OIL TRADE

Main inter-area movements in million tonnes (metric tons) and MT ton-miles in brackets. Only main routes are shown. Area figures are totals including smaller routes not shown separately.

Cufley describes five functions of the tramp market.  

First, to provide shipping space for all commodities whose annual movements, as to total volume, direction of voyages, and individual cargo tonnages, cannot be predicted with accuracy. Second, to transport marginal tonnage requirements in respect of those commodities (principally mineral shipments) where the bulk of the traffic is lifted by integrated or hired fleets, including the replacement of "Contractural" ships which fall out of scheduled loading positions. Third, to provide the cargo-liner system with a reserve of shipping space to deal with seasonal and other temporary "flushes" of cargo and fill the gaps in advertised liner sailing due to delays or casualties. Fourth, where individual cargo tonnage is sufficient to compose full cargos to offer shippers lower rates than those of liner tariffs. Fifth, to provide a "pool" of readily available shipping which can be switched to meet international emergencies and calamities—such services ranging from the alleviation of human suffering to the sustenance of armed conflicts between nations.

Vessels in the tramp market can be chartered, or hired, in three different ways. First, the ship can be chartered just as a hull. The charter then supplies the crew and

7 See P.M. Alderton, 1980 p. 132.
operates the ship in fact as if he were the shipowner. Such a charter is referred to as a bareboat or demise charter. Second, the ship can be chartered as a functioning, operating unit for a period of time. The charterer pays the hire money and the bunkers, and the ship trades where the charterer wishes. This is called a time charter. Third, the ship can be chartered to carry so much cargo between A and B. This is known as a voyage charter. In 1969, 180 million tons of cargo was carried through voyage charters, whereas only 45 million tons of cargo was carried through time charter.

The functions of the tramp shipping market, and the fact that voyage charters are predominantly used, make it both a very unstable and uncertain market. Greek shipping's close association with the tramp shipping market, therefore, has serious implications, as was seen in the recession of the early 1920s and the 1930s Depression, when the price of vessels, both new and old, and the freight rates halved almost overnight, leaving many shipowners bankrupt. These implications can be best understood through an economic analysis of the tramp shipping market and shipping cycle, as developed by McHugo. This is especially important as some

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8 For further discussion on types of chartering see Appendix 2.
9 Ibid., p. 134
would advocate that Greece's present shipping woes are merely manifestations of the world economic climate.

The price of vessels, the freight rate, and the quantity of laid-up tonnage in the tramp market are functions of the world supply and demand of goods. The tramp market is, in fact, and will continue to be, as long as it remains unregulated, an excellent example of the perfectly competitive market, embodying, on the one hand, maximum efficiency, and, on the other, volatility. The operation of this perfectly competitive market is witnessed through the trends in the freight rate during the twentieth century (see Figure 8). In times of strife, when vessels are in low supply and demand for trade is strong, the freight rate is high. The reverse is seen in more peaceful times. These trends, however, shroud the more important short-run phenomenon of the shipping cycle.\(^\text{11}\)

The shipping cycle is the parallel of the business cycle, not only in its movements, but also in its uncertainty. It can be followed in Figure 9. The cycle remains at its peak, prosperity, for a relatively short duration, before entering recession. Prices for vessels, and the freight rate, are high during the prosperity period. On entering a recession, the price of vessels declines as does the freight rate. A depression is reached when the lowest

\(^{11}\) See Grammenos, C.T. "Bank Finance for Ship Purpose", 1979, P. 2
FIGURE 8

DRIЯ CARGO FREIGHT INDEX
1870 = 100

SOURCE: ALDERTON, 1980
Figure 9

Shipping Cycle

Recovery

Prosperity

Recession

Depression

Time

Source: N. Metaxas (1991)
vessel prices and freight rates are found in the market. The depression generally has a longer duration than the prosperous period, before recovery arrives again. The sole engine for this phenomenon is supply and demand.

The change in the price of vessels is of particular interest to Greek shipping, because it helps explain the characteristically mature age of the average Greek vessel. Vessels can be purchased both as new constructions and second-hand. One would assume that new constructions would be more expensive than second-hand vessels, but this is not the case. When the shipping cycle is high, second-hand vessels are often more expensive. There are two reasons for this. First, second-hand vessels can be delivered immediately and operated. New constructions, however, will take as long as five years to be constructed. Second, shipowners realize that the high rates may only last a few months, or, at most, a year. By ordering a new vessel, therefore, the high immediate profits will be lost. Although a second-hand vessel may be less efficient to run, it will realize higher returns. This phenomenon can be witnessed in Table 1. After World War II, when reconstruction necessitated high trade, the cost of second-hand vessels was higher than new buildings. The same was true of the Korean War and the Suez crisis in 1957. Greek shipowners, considering their characteristically entrepreneurial spirit, will tend to buy second-hand tonnage, desiring to maximize the immediate
Table 1  Cost of a 9,500 dwt tramp ship, 1945-1962

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Total, £ thousand</th>
<th>Price per dwt, £</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Building cost</td>
<td>Ready ship</td>
</tr>
<tr>
<td>1945:</td>
<td>December</td>
<td>265</td>
<td>240</td>
</tr>
<tr>
<td>1946:</td>
<td>June</td>
<td>290</td>
<td>290</td>
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<tr>
<td></td>
<td>December</td>
<td>300</td>
<td>310</td>
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<td>1947:</td>
<td>June</td>
<td>330</td>
<td>370</td>
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<td></td>
<td>December</td>
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<td>1948:</td>
<td>June</td>
<td>360</td>
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<td></td>
<td>December</td>
<td>380</td>
<td>425</td>
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<td>1949:</td>
<td>June</td>
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<td>December</td>
<td>600</td>
<td>675</td>
</tr>
<tr>
<td>1959:</td>
<td>June</td>
<td>780</td>
<td>635</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>745</td>
<td>635</td>
</tr>
<tr>
<td>1960:</td>
<td>June</td>
<td>755</td>
<td>620</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>720</td>
<td>650</td>
</tr>
<tr>
<td>1961:</td>
<td>June</td>
<td>730</td>
<td>650</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>730</td>
<td>650</td>
</tr>
<tr>
<td>1962:</td>
<td>June</td>
<td>725</td>
<td>77.5</td>
</tr>
</tbody>
</table>

Source: Metaxas (1971), using data published in Fairplay, 4 July 1962
realization. This tendency acts to accentuate the characteristically mature average age of the Greek fleet.

How exactly do the forces of supply and demand operate within the shipping cycle? During the recovery stage, the freight rate is low, as is the price of vessels. An exogenous shock in demand (with a recovering world economy) stimulates both the freight rate and the price of vessels. Because, in the short-run, the quantity of vessels in the market is fixed, as the recovery becomes stronger, the freight rate and vessel price will come under more and more pressure. This can be seen in Figure 10. Demand shifts from $D_1$ to $D_2$, and later to $D_3$. The shape of the supply curve reflects the short-run supply situation of vessels. Most vessels are easily brought into operation. There are a few, however, that require a lot of work, and these will only be made operational if freight rates are extremely high. This accounts for the sharp upward slope of the supply curve before the full employment of vessels is reached. The total quantity of vessels in the market is $q^*$. The distance, therefore, between $q^*$ and where the supply curve and demand curve cross is the quantity of laid-up vessels in the market. In Figure 10 this is $q'q^*$.

As shipowners start to see the profits to be realized in the market, as the period of prosperity nears, there will be an increase in the demand for new constructions. A number of new shipowners will also enter the market. By the
FIGURE 10

(1) RECOVERY STAGE OF SHIPPING CYCLE

Source: Mchugh, 1985
time prosperity arrives, those vessels will be operable. The effect of these new constructions entering the market can be seen in Figure 11. The supply curve will shift to the right, i.e., an increase in supply. This will have the effect of reducing the freight rate and the price of vessels. Depending on how prosperous the boom, it might also have the immediate effect of laying-up a number of over-aged vessels (these are the most inefficient vessels in the market). The total quantity of vessels will increase from $q^*$ to $q''$. $q'q^*$ will be the quantity of newly laid-up vessels. The period of prosperity will last as long as the world boom and high trade are maintained.

Recession is the next stage of the cycle. The level of trade will fall off, thus reducing the demand for cargo space in the market. The freight rate will fall, as will the price of vessels. Once again many vessels will be laid-up. This can be seen in Figure 12. Depending on the severity of the recession, $q''q^*$ quantity of vessels will be laid-up. The freight rate will fall from $FR_1$ to $FR_2$, as will the price of vessels from $P_1$ to $P_2$. This completes the shipping cycle. The cycle, and the inverse relationship between the freight rate and the price of vessels and the quantity of laid-up vessels is emphatically substantiated in Figure 13, which shows the movement of the freight rate and quantity of laid-up vessels during the 1970s.
Figure 12

(2) RECESSION STAGE OF THE SHIPping CYCLE

SOURCE: MENDO, 1983
FIGURE 13
TRAMP TIME CHARTER INDEX AND NUMBER OF VESSELS LAID-UP
1968-1976

A TRAMP TIME CHARTER INDEX
IS A COMBINED FREIGHT RATE
INDEX FOR DRY CARGO CARRIERS

Sources: General Council of British Shipping.
It is argued by some that the shipping cycle is the sole reason for the present Greek shipping crisis. This is not the case. If it were, why is it that the Greek fleet is being hit so much harder than other fleets? A third of the Greek fleet is laid-up, compared to a quarter of the world fleet. As will be seen later in this thesis, although recession does account for a part of Greece's shipping problems, there are many more structural problems, which will not evaporate with the upturn of the economy.

AGE OF THE FLEET

The sea is hard on vessels, and, whereas a building might survive centuries, the expected life of a ship is around twenty years. Historically, there has been a tendency for the Greek fleet to have a large proportion of old (15-20 years) and over-aged vessels (20 years plus). This is empirically supported in Figure 14. In 1938, over 90% of the fleet exceeded 15 years of age, and over 65% were over-aged. In 1962, around 50% of the fleet were older than 15 years, and, today, the age of the fleet still remains a hole in the hull of Greek shipping.

The reason for this is that the age of a vessel has serious implications for its operability and profitability. These implications, predominantly negative, concern the fol-
lowing: (a) Efficiency; (b) insurance; (c) casualties, to both vessels and seamen; (d) lay-up time; (e) turnover of vessels; and (f) other technical reasons. Each of these implications will now be analyzed.

(a) Efficiency

The older a vessel, the less efficient it will be. First, older vessels have higher fuel consumption and are, on average, between one and two knotts slower. This drastically effects the operability and profitability of a vessel. An example will help illustrate this point. Table 2 contains the description of two vessels, both belonging to the Lelakis Shipping Group, and operated through Piraeus Chartering Co. LTD. MV Suzan is an old vessel (1965), and MV Yiannis L. is a modern vessel (1981). Tables 3 and 4 show the voyage estimates for a voyage from Hong Kong to New York, via the Panama Canal, with a cargo of 5000 metric tons of fireworks (which are hazardous, requiring extra packaging and slower loading). At the same freight rate, per ton, the modern vessel could carry the cargo for a profit of over $100,000, while the old vessel could not carry out the voyage at a profit. The voyage estimates have been made as simple as possible - for instance, it is unlikely that both vessels would be in Hong Kong, and they would, therefore, need to ballast to Hong Kong. This would be more expensive for the older vessel than the modern vessel. It is again unlikely that on arriving in New York, the vessels would
### TABLE 2

**DESCRIPTION OF VESSELS**

**GEARED / CRANED BULK CARRIERS**

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Type Description</th>
<th>Dimensions</th>
<th>Tonnage</th>
<th>Additional Features</th>
</tr>
</thead>
</table>
| **M/V SUZAN**           | Craned/self trimming bulk carrier - Panama flag - Built 1965 Lloyds               | SDWAT: 6.359 mt on 34' 6 1/2" - TPI 89.6 mt |         | WDWAT: 5.597 mt on 33'10"  
|                         | Lakes DWAT 16.764 on 26' FW - TPI 83 mt                                           |            |         | WDWAT on 33'10"  
|                         | LOA/LBP/BEAM: 600'/570'/74'3"                                                    |            |         | Lakes DWAT 16.764  
|                         | GRT/NRT: 16168/10747                                                             |            |         | GRT on 33'10"  
|                         | GR/BL: 1.067.784 + 147.096 in BWT / 1.030.946 cft                               |            |         | 5 Ho/ 5 Ha - Macgregor  
|                         | Hsizes: nbr 1: 47' 1 1/2" x 29'11", others 60' 4 1/2"/60'4 1/2"/60'  
|                         | 4 1/2" /68' 7 1/2" all by 34'11"                                               |            |         | Cranes 3 x 12.5 tns each  
|                         | Grain fitted - CO2 fitted - Lakes fitted                                         |            |         | Strengthened for ore cargoes with alternate holds (2-4 may be empty)  
|                         | Speed: 12 knots on 28 tns IFO 1500" + 2 tns mdo                                 |            |         | Port cons gear working/idle 4/1.5 tns mdo  
| **M/V "VIANNIS L"**    | Self-trimming - Panama flag - Built 1981                                        | SDWAT: 7.790 mt on 7.724 m draft |         | Class DNV 1A1 Ice 1A EO  
|                         | LOA/LBP/BREADTH: 121.83/114.17/17.60 m                                         |            |         | GRT/NRT 5491.84/3417.09  
|                         | Holds box type (Clear L/B/H Nbr: 1:32,2x13,4x11,2m Nbr: 2:38,0x15,0x10.8m)    |            |         | 2 Holds  
|                         | Hatches (Clear Dims Nbr 1: 26.662x12.96m Nbr 2: 33.499x12.96m)                 |            |         | 2 Hatches  
|                         | Macgregor single pull hydraulic hatchcovers                                    |            |         | Macgregor single pull hydraulic hatchcovers  
|                         | Gr/Bl: 372.012/368.548 cft                                                      |            |         | Gr/Bl 372.012/368.548 cft  
|                         | Holds are free from stanchions and any other obstructions                       |            |         | Holds are free from stanchions and any other obstructions  
|                         | Freely removable cargo battens - steelfloored throughout in holds               |            |         | Freely removable cargo battens - steelfloored throughout in holds  
|                         | Holds suitable for grab discharge                                                |            |         | Holds suitable for grab discharge  
|                         | 4 Welle type derricks of 22.5 tns swl (At Duo-Lift system 40 mt)                |            |         | 4 Welle type derricks of 22.5 tns swl (At Duo-Lift system 40 mt)  
|                         | Grain fitted - CO2 fitted - Great lakes fitted                                   |            |         | Grain fitted - CO2 fitted - Great lakes fitted  
|                         | Hold ladders according ot Austr. reg. - Mechanical ventilation in hold 20 Airchanges per hour. |            |         | Hold ladders according ot Austr. reg. - Mechanical ventilation in hold 20 Airchanges per hour.  
|                         | Containers capacity 302 TEU'S (172 under deck and 130 on deck and hcovers) - 40 Reefer saucets on deck |            |         | Containers capacity 302 TEU'S (172 under deck and 130 on deck and hcovers) - 40 Reefer saucets on deck  
|                         | Equipped with permanent and loose fittings toload containers with twist-lock system |            |         | Equipped with permanent and loose fittings toload containers with twist-lock system  
|                         | Strenght: Tanktop 11,5 tons/m2 - Deck 3,0tons/m2 - Hcovers 2,2 tns/m2           |            |         | Strenght: Tanktop 11,5 tons/m2 - Deck 3,0tons/m2 - Hcovers 2,2 tns/m2  
|                         | Speed: 15 knots on 22 tons ifo 1500" + 2tons mdo                                |            |         | Speed: 15 knots on 22 tons ifo 1500" + 2tons mdo  
|                         | 13 knots on 15 tons ifo 1500" + 2tons mdo                                       |            |         | 13 knots on 15 tons ifo 1500" + 2tons mdo  
|                         | when reefer plugs in use add 1,5 tons mdo .                                   |            |         | when reefer plugs in use add 1,5 tons mdo .  


### Dry Cargo Voyage Estimate

**M/V SUZAN**  
Summer DWT: 6,359 dwt  
Built: 1965

**Proposed Voyage:** Hong Kong to New York

**Cargo:** 5,000 tons Fireworks

**Loading/Discharging Rates:** 500 / 500 tons loaded/discharged per day

<table>
<thead>
<tr>
<th>From To</th>
<th>Miles</th>
<th>Days</th>
<th>TS Per Day</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>HK to PN</td>
<td>9,194</td>
<td>32</td>
<td>28 hrs</td>
<td>896</td>
</tr>
<tr>
<td>PN to NY</td>
<td>1,972</td>
<td>7</td>
<td>28</td>
<td>195</td>
</tr>
</tbody>
</table>

**Panama Canal:**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Steaming Days</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days for Loading</td>
<td>14 (inc. sat, sun)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days for Discharging</td>
<td>14 (inc. sat, sun)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Days</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tonnage (IFO)</td>
<td>1,092</td>
<td></td>
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</tr>
</tbody>
</table>

**Gross Cargo:** 5,000

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Net Freight</td>
<td>456,000</td>
<td></td>
</tr>
<tr>
<td>Running Expenses or Hire</td>
<td>138,000</td>
<td></td>
</tr>
<tr>
<td>Loading Port Expenses</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>Discharging Port Expenses</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Canal Dues</td>
<td>60,000</td>
<td></td>
</tr>
<tr>
<td>Extra Insurance</td>
<td>10,000</td>
<td></td>
</tr>
</tbody>
</table>

**Extra Packaging and Safety, Miscellaneous:** 5,000

<table>
<thead>
<tr>
<th>Type</th>
<th>TS</th>
<th>Per Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFO</td>
<td>170</td>
<td>185,640</td>
</tr>
<tr>
<td>FO</td>
<td>280</td>
<td>38,640</td>
</tr>
</tbody>
</table>

**Total Expenses:** 467,280

**T/C Rate Daily:** 16.950

**T/C Rate Per Tdw:** 75

**Estimated TTL Profit:** -11,280

**Over a Period of:** 69 Days

**Daily Profit:** -165
# DRY CARGO VOYAGE ESTIMATE

**M/V ** YIANNIS L  
**Summer D.W.T.** 7,790 dwt  
**Built** 1981

**Proposed Voyage:** HONG KONG TO NEW YORK

**Cargo:** 5,000 tons FIREWORKS

**Loading/Discharging Rates:** 500 / 500

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>HONG KONG</td>
<td>PANAMA</td>
</tr>
<tr>
<td>PANAMA</td>
<td>NEW YORK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANAMA</td>
<td>PANAMA CANAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANAMA CANAL</td>
<td>NEW YORK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miles</th>
<th>Days</th>
<th>TS Per Day</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,194</td>
<td>26</td>
<td>22</td>
<td>572</td>
</tr>
<tr>
<td>1,972</td>
<td>6</td>
<td>22</td>
<td>132</td>
</tr>
</tbody>
</table>

**Total Steaming Days:** 34

**Total Days For Loading:** 14 (inc. sat and sun)

**Total Days For Discharging:** 14 (inc. sat and sun)

**Total Days:** 62

**Total Tonnage:** 704

---

**Cargo:**

<table>
<thead>
<tr>
<th>Cargo</th>
<th>TS</th>
<th>Per Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000</td>
<td>96</td>
<td>480,000</td>
</tr>
</tbody>
</table>

**Net Cargo:** 456,000

**Running Expenses or Hire:**

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Rate</th>
<th>Per Day</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>1,508</td>
<td>x 62</td>
<td>93,000</td>
</tr>
</tbody>
</table>

**Loading Port Expenses:** 0

**Discharging Port Expenses:** 0

**Canal Dues:** 0

**Extra Insurance:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel (IFO 704)</td>
<td>119,680</td>
</tr>
<tr>
<td>Fuel (DO 139)</td>
<td>38,920</td>
</tr>
<tr>
<td>Total</td>
<td>158,600</td>
</tr>
</tbody>
</table>

**Total Expenses:** 346,600

**Total Profit / Loss:** 109,400

**Estimated TTL Profit:** 109,400

**Over a Period of:** 62 Days

**Daily Profit:** 1,765
immediately gain a berth; one might have to lie idle for a week or more, depending on congestion, before discharging is possible.

The question of port time makes the speed and consumption issue very interesting. An efficient shipbroker will know if there is to be any congestion in a port. If, by travelling at fifteen knots, the vessel will arrive seven days early (as in the example), and then have to lie idle in port for a week, the broker will rather have her travelling at twelve knots, consuming less fuel, and not having to lie idle. This point adds to the efficiency of modern vessels, since they have a greater range of speeds than an old vessel. The speed chosen will also depend on the price of bunkers, ie, fuel and diesel oil. The relationship between the cost per ton mile and speed can be seen in Figure 15. The lowest turning point on the curve represents the minimum cost per ton mile speed and is sometimes referred to as the economic speed. The maximum profit earning speed will lie between the minimum cost speed and the "knee" on the cost speed curve where the costs start to rise to a prohibitive level.

The condition of a vessel has important consequences for the speed. Old, rusted, and barnacled vessels will not travel as efficiently as modern vessels. For this reason, vessels are frequently placed in dry dock and cleaned.

12 See P.M Alderton, 1980, p.56
RELATIONSHIP BETWEEN THE COST PER TON MILE AND SPEED
Throughout voyages, the chief-mate has the crew working and painting on the deck, holds, and even the hull. Owing to the diminished profitability of older vessels, owners are less likely to dry dock them, thus impinging on their efficiency. An example comes to mind from the author's shipping experiences. MV Lefthero had a cargo of steel molds with destination Bandar Khomeini. At the time of the fix, Bandar Khomeini was a safe port. However, during the voyage strife started in the Persian Gulf and, on entering the Gulf, the Lefthero was forced to halt at Bushire. It was then to be escorted in a convoy, for safety, to Bandar Khomeini. When the convoy left, a hundred miles or so out to sea, one of the ships in the convoy was torpedoed; the convoy returned to Bushire. By the time that the next convoy was ready to leave for Bandar Khomeini, the Lefthero was extensively barnacled, since it had been sitting in port for a number of months, and, also, because it was an old vessel and the owner had not dry-docked it in a long time. It was, therefore, unable to keep up with the convoy and was forced to return to Bushire. The owner, who had signed the charter party, was responsible for the cargo arriving in Bandar Khomeini, and was liable for the cost of transporting the steel molds via road to Iran. This is a situation which a

---

13 "Fix" is the term used by shipbrokers for the signing of the contract detailing a charter by owner and charterer.
14 From the logs of MV Lefthero, built 1962, 1982-83, Lelakis Shipping Group
modern vessel would not have had to face.

Mature tonnage is also inefficient in terms of running costs. If one looks back to Tables 3 and 4, one will see that the running costs of the Suzan, the older vessel, were $2,000 per day, whereas the costs of the Yiannis L. were $1,500 per day. Automation is the major reason for this. On an older vessel a crew of 35 might be needed to operate the vessel efficiently. A modern vessel, on the other hand, might only require a crew of 20, thus accounting for the difference in running costs.

(b) Insurance

The second negative implication of older aged tonnage is insurance. There are two kinds of insurance: Hull and Machinery and Shipowners Mutual Protection Societies, which are known as P&I clubs. The cost of premium on Hull and Machinery insurance depends on a vessel's rating with one of the International Registries (Lloyds, for instance). The lower the rating, the higher the insurance premium. Older aged vessels, with lower ratings, will have more expensive insurance premiums than modern vessels. Older aged tonnage has higher insurance premiums because of their higher probability of damage and sinking. P&I clubs are concerned with insuring against those extra risks not covered by ordinary

15 See Alderton, P.M., 1980, p. 119
16 Literally, "Protection and Indemnity" clubs.
marine policies, such as Hull and Machinery policies. This might be the cargo, the crew, or anything else. Again, because of the higher risks involved, premiums will be higher with older vessels. Insurance for over-aged vessels is virtually impossible to come by; these vessels can, thus, only carry cargos of cement, or scrap metal, or other cheap commodities.

(c) Casualty Risk

It was implied in the preceding paragraph that older vessels are risky. This, as can be seen in Table 5, is empirically supported. Greek Shipping is renowned for its particularly high casualty rate, and

<table>
<thead>
<tr>
<th>AGE</th>
<th>NO. OF SHIPS</th>
<th>GRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 4 years</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5 - 9</td>
<td>1</td>
<td>1,250</td>
</tr>
<tr>
<td>10 - 14</td>
<td>5</td>
<td>46,220</td>
</tr>
<tr>
<td>15 - 19</td>
<td>15</td>
<td>219,235</td>
</tr>
<tr>
<td>20 - 24</td>
<td>19</td>
<td>173,301</td>
</tr>
<tr>
<td>25 +</td>
<td>22</td>
<td>109,164</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>62</strong></td>
<td><strong>549,170</strong></td>
</tr>
</tbody>
</table>

SOURCE: NAFTIKA CHRONIKA

CASUALTIES IN GREEK FLEET, 1981-82

this reputation tarnishes the success of Greek shipping. It also has the overall effect of increasing running costs for all Greek vessels. In theory, there is no discrimination in insurance against any particular flag. However,
underwriters add on to the base rate an amount which takes into account the number of casualties under a particular flag. This, clearly, will mean larger premiums for Greek vessels. In addition to casualties to vessels, there are also casualties to seamen. Table 6 shows the casualties for the year 1975. 195 seamen lost their lives, and 313 were injured. This high casualty rate to seamen will have the effect of increasing wages to crews, and thus, running costs, especially on older vessels.

(d) Lay-up Time

The fourth negative implication of older-aged tonnage is that, when the shipping cycle enters a recession, the first vessels to be laid-up are the old vessels. As can be seen in Figure 16, the normal level of laid-up Greek vessels is around 5%. However, in times of recession, the Greek fleet is particularly hard hit. In 1962, a year in which trade, and thus, the demand for tonnage, was low, over 16% of the fleet were laid up; in the same year, over 30% of the fleet were between 15 - 20 years old. The laying-up of a vessel is particularly tragic in Greek shipping. This is because many of the shipowners possess only one or two vessels; if one of these is laid-up, bankruptcy is almost an inevitable consequence.
Persons injured, fatally or not, by category of ship, area of Port Authorities and speciality of injured persons. Year 1975

<table>
<thead>
<tr>
<th>Category of ship</th>
<th>Personal injury (fatal injury)</th>
<th>Area of Port Authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Crew</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other persons</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Dry cargo ships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tankers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Including all cases of injuries, of which the preliminary severity is equal to 4 in the competent Port Authorities.

1. See Table 6.
2. i.e.: cargo, oil and gas, frozen goods, vehicles, etc., and other cargo and liquids.
3. Of which 194 off-shore.
4. Of which 27 for crews.
(e) Turnover of Vessels

Rapid turnover of vessels is the fifth implication of an over-aged fleet. If new constructions are purchased, a shipowner might expect to own and operate it for at least ten years, which will be the vessels most profitable years, and maybe as long as twenty years. However, if one purchases a second-hand vessel of, for example, fifteen years of age, one will expect to own and operate it for a very short duration. This makes demise charters, and even time charter, out of the question. An owner will also need to be searching for a vessel to replace it, a further inefficiency. Ship purchase is an expensive pastime, especially with high interest rates. A vessel that an owner maintains for twenty years, is more likely to pay its way, than a vessel maintained for three years.

(f) Technical Reasons

Finally, there are other technical reasons why an over-aged fleet is problematic. Loading and discharging techniques change over time. This will lead to incompatibilities between old vessels and docks, prolonging the time required in port. Port expenses are very high and this fact would greatly increase the voyage cost of older vessels. Old age tonnage has deeper drafts than modern tonnage. This limits the ports it can enter, and may even prohibit

---

1 See Appendix 2.
entrance to the Great Lakes and Panama and Suez Canal; this is especially the case with very large vessels.

The sum of these negative implications of a mature fleet have to be weighed against the advantages of purchasing second-hand tonnage outlined under the preceding heading. If the prosperity period in the shipping cycle had a longer duration, the scale might tip either way. However, since recessions tend to dominate periods of prosperity, the age of the Greek fleet is a serious problem that has to be faced by Greek shipowners.

ENTREPRENEURIAL OWNERSHIP

The Greek Shipping Directory, \(^2\) established in 1957, lists Greek-owned tonnage alphabetically and under the owner or shipping company. What is interesting about this categorization is that there are almost as many owners as there are vessels. There are two explanations for this: First, the economies of scale of shipowning; and, second, the background of Greek shipowners, the majority of whom were sea captains before becoming shipowners.

\(^2\) Annual publication, Editor: Skolarikos, published by Greek Shipping Publications Co. LTD.
The optimum size for a shipowning company is either very small or very large. This can be seen in Figure 17. A small company, with one to three vessels, is able to achieve high efficiency, because it can operate its vessels from a small office with very few employees. The owner, or owners, devoting so much time to each vessel, are able to insure that the optimum charter is being contracted each time, and that when there is a problem, it is being handled in the most expeditious way. Professor Stratopoulos, who, along with his brother, owns two vessels, the 20,000 DWT Nadia S. (1963) and the 17,500 DWT Nestor (1963) emphasised this point to the author with the following example. If the propeller shaft on one of his vessels were to break, he would personally visit the shipyards and select a good secondhand propeller shaft - barter over the price and oversee the installation of the propeller shaft. On the other hand, a large or medium sized shipowner, would order a new propeller shaft, for which there would be a long delivery period, pay an expensive price for the shaft, and then wait for the shipyards to install it. In such a situation, not only are the small shipowners' costs minimized, but also the time a vessel is out of operation is minimized. In comparison, the medium or large shipowners' method of operation is inefficient.

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3 Also see McHUGO INTERVIEW #6 with Economakis.
4 See McHUGO INTERVIEW #1 with Professor Stratopoulos.
ECONOMIES OF SCALE OF SHIPOWNING COMPANIES, BY VESSELS.
In short, the small owner is able to oversee the entire running of his vessels, in a cost efficient way. This has to be contrasted against the running of a large fleet, say with one hundred or more vessels. A large shipping company is able to specialize; the typical company organization can be seen in table 6. Whereas all these functions would be carried out by the owner himself in a small company, different departments handle them in a large shipping firm. The turnover of a large company is such, that the costs, when spread over the entire fleet, are viable. Thus, specialization in a large company enable it to obtain a high level of efficiency.

A medium sized shipping firm has too many vessels for an owner to personally oversee, and not enough vessels to have specialized departments. It is, therefore, economically inefficient. How, then, does a small shipping company evolve into a large shipping company? There are two answers to this. The first is - rapidly. By borrowing large quantities of capital, shipowners are able to expand rapidly, thus avoiding the diseconomies of being a medium sized shipping company. There are, however, only a handful of shipowners that have achieved this. Table 7 lists the twenty largest Greek shipowners in 1979. When one compares the tonnage owned by the top ten owners and total Greek tonnage, it is clearly a large percentage - around fifty per cent. The rest of the fleet is owned by around 750 small shipping
Table 6

Source: Abraham, F. M., 1980

- Board
  - Operations
    - Carrio Lines
    - Passenger
  - Technical Services
    - Research
    - Training
    - Personnel
    - Maintenance
  - Purchasing
  - Finance
    - Economic
    - EHF
  - Secretary
    - General
  - Administration
    - Human Resources
    - Legal
    - Economic
    - Planning

Typical Company Organization
<table>
<thead>
<tr>
<th>SHIPOWNER</th>
<th>SHIPS</th>
<th>TOTAL TONNAGE GRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Onassis</td>
<td>49</td>
<td>5,904,295</td>
</tr>
<tr>
<td>2. Goulandris Bros.</td>
<td>45</td>
<td>4,260,585</td>
</tr>
<tr>
<td>3. C.M Lemos</td>
<td>32</td>
<td>4,082,138</td>
</tr>
<tr>
<td>4. Niarchos</td>
<td>40</td>
<td>3,622,229</td>
</tr>
<tr>
<td>5. G.S Livanos</td>
<td>23</td>
<td>2,876,360</td>
</tr>
<tr>
<td>6. N.Goulandris Bros.</td>
<td>35</td>
<td>2,373,231</td>
</tr>
<tr>
<td>7. Coulothlos</td>
<td>14</td>
<td>1,717,828</td>
</tr>
<tr>
<td>8. Vardinoyannis</td>
<td>37</td>
<td>1,661,862</td>
</tr>
<tr>
<td>9. Kulukundis</td>
<td>28</td>
<td>1,631,033</td>
</tr>
<tr>
<td>10. Hadjioannou</td>
<td>15</td>
<td>1,499,777</td>
</tr>
<tr>
<td>11. Papachristides</td>
<td>21</td>
<td>1,373,307</td>
</tr>
<tr>
<td>12. Karageorgis</td>
<td>21</td>
<td>1,191,279</td>
</tr>
<tr>
<td>13. Livanos</td>
<td>72</td>
<td>1,159,671</td>
</tr>
<tr>
<td>14. Andreadis</td>
<td>26</td>
<td>1,085,581</td>
</tr>
<tr>
<td>15. Chandris Bros.</td>
<td>36</td>
<td>1,047,928</td>
</tr>
<tr>
<td>16. Carras</td>
<td>17</td>
<td>1,034,211</td>
</tr>
<tr>
<td>17. Papilios</td>
<td>49</td>
<td>987,121</td>
</tr>
<tr>
<td>18. Pappas</td>
<td>13</td>
<td>936,440</td>
</tr>
<tr>
<td>19. Konstantopoulos &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karpidas</td>
<td>11</td>
<td>882,204</td>
</tr>
<tr>
<td>20. Martinos</td>
<td>41</td>
<td>847,773</td>
</tr>
</tbody>
</table>

SOURCE: Greek Shipping Directory, 1980
companies, with between one and eight vessels.

A second way of evolving from a small to a large ship-owing company, avoiding the diseconomies of medium size, is an innovation developed by the Hellenic Marine Consortium in recent years. Their motto is: "Progress through unity". The HMC is composed of 33 shipowners, comprising a fleet of 180 vessels and 3.4 million DWT. The consortium is a non-profit organization which aims at reducing medium sized shipowners' operating costs and improving their standards. It is financed by members' contributions which are determined by the size of their fleets; accumulated surplus is used for research and development of Consortium activities and joint ventures. Services include a technical division; ship services; a safety; claims and pollution prevention committee; a tourist agency (vital for repatriation of crew); and other activities. HMC has been a success and will probably lead to development of further consortiums in the future. 5

The second reason for the multitude of Greek shipowners is the background and breeding bed of these shipowners. Although no figures are available, one could safely postulate that as many as sixty percent of Greek shipowners were formerly sea captains, and, before that, chief mates and deck-scrubbers. The remaining forty percent are the offspring of generations of sea captains and shipowners. The shi-

5 See HMC brochure, "Progress through unity - in good times... or in bad times.", Athens, 1984.
powner that the author worked for is a classic example of this. During the 1960s, he was a captain of bulk carriers. Today he is one of the foremost Greek shipowners, with a fleet fluctuating between thirty and fifty vessels. These shipowners, although uneducated, are extremely diligent, quick-witted, and use their extensive knowledge of the sea to sail their vessels through the tranquil, yet more often, stormy waters of world shipping.

These captains are generally competent to manage only one or two vessels; captains with the potential to run a fleet are few and far between. Considering, then, the aspiration of every Greek sea captain to one day own a vessel himself, the existence of a multitude of small shipowners, and only a handful of large shipowners, is inevitable.

The consequences of the Greek style of ship ownership is the over-dramatization of crises. For a shipowner with a large fleet to have one of his vessels laid-up is inconsequential. However, for a small shipowner, the laying-up of a vessel is disastrous—especially when the owner has borrowed heavily, as is often the case, in order to purchase the vessel. In times of crises, therefore, the bankruptcy rate among Greek shipping companies is very high. In fact,

6 Following the discussion on the diseconomies of being a medium size shipping company, it would follow that this shipowner ought to be in difficulties. He is. But he assures the author that he is on the way to becoming a large shipowner—the "rapid" way, he hopes.
in the present crisis, for the years 1982-3, a total of ninety-two shipping companies went bankrupt. This figure might sound like a high quantity of bankruptcies, but when one considers that each of these shipping companies might be single vessel entities, it is not that serious, especially when compared to the casualty rate in Greek shipping - with 62 vessels sinking in 1982.

A second consequence of the Greek style of shipowning is fragmentation - no unification existing to deal with problems faced by all shipowners. This has tended not to be a problem in Greek shipping. First, altruism and patriotism have run hand in hand in Greek shipping. There is a tradition of rescue in times of trouble, whether it be personified by Vallianos, Kulukundis, or any other notable figure of Greek shipping. Second, during World War I, the Union of Greek Shipowners was established, unifying the shipowners, and giving them a mouthpiece through which to express themselves. The Presidency of the Union is extremely prestigious among the Greeks. Two separate Unions exist, one in Piraeus and the other in London. The stance maintained by the Union is consistently one of congeniality and optimism, as was discovered by the author on interviewing the present

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7 70 in Greece; 10 in London; 7 in New York; 5 in various other countries. This figure is confidential, given to the author with the understanding that it would only be used for this thesis, not being published, by the Head of the Ministry of Mercantile Marine's Statistics department.
President, Mr. Aristomenis Karageorgis. 8

The final consequence of the Greek style of shipowning is continuity. As long as there are Greek sea captains, there will be Greek shipowners, and Greek shipping will continue to thrive as it has.

FLAGS OF CONVENIENCE

In 1978, the world's three leading flag fleets were as follows: Liberia, with 80 million Gross Registered Tons; Japan with 39 million GRT and; Greece with 34 million GRT. 9 How can it be that Liberia, a small West African country (43,000 square miles and population of 1.5 million) with an even smaller capital of Monrovia, has the largest fleet in the world? The answer is: Flags of convenience.

What exactly is a "flag of convenience"? 10 All ships have to be registered somewhere, and a ship, once registered, acquires the nationality of the country in which it is registered; it flies the flag of that country and is governed by its laws. Under the Geneva Convention on the High Sea: 11 "Each state shall fix the conditions for the grant of its nationality to ships for the registration of

8 See McHUGO INTERVIEW #5.
10 Ibid, pp. 91-93.
11 Article 5, Paragraph 1, 1958.
ships in its territory and for the right to fly its flag." The same convention also states that there must be a genuine link between the state and the ship - this, however, seems to be open to very vague interpretation. A flag of convenience is, therefore, that of a country whose laws permit, and, in fact, encourage and facilitate, the registration of foreign-owned tonnage under their national flag. This is as opposed to countries where the right to fly the national flag is subject to stringent conditions and involves responsibilities - hence, the expressions "OPEN REGISTRY" and "CLOSED REGISTRY". In addition, the flag of convenience country may possess some or all of the following features: It may be a small country which is poor and has few resources with which to raise foreign currency (Liberia, of course, the classic example; also, Panama, Bermuda, Somalia, Honduras, etc). The revenues raised by registration is minimal. In 1975 Liberia was reported as having earned only $12 million in registration fees. There are, however, other financial gains to be made, such as from levy taxes. A flag of convenience country may permit manning by non-nationals and no strongly developed trade unions may exist. There may also be a very low levy tax and no adequate machinery may exist to enforce international safety regulations.

The evolution of the flag of convenience is difficult to trace. The secret clause in the Treaty of Kuchuk
Kainarzi (1774), which permitted the Greeks to fly the Russian Flag, was perhaps the first use of the flag of convenience. The modern practice dates back to 1922 when two American ships were registered in Panama in an attempt to "beat prohibition". The growth in the use of flags of convenience, typified by the Liberian fleet, can be seen in Figure 18, which shows the rapid growth of the Liberian Flag during the 1950s. It is no coincidence that the size of the United States' fleet declines as the growth of the Liberian fleet commences: of the Liberian fleet, 33 per cent is estimated to be American.

More important, 50 per cent of the Liberian fleet is estimated to be Greek. The Greeks, especially in the 1950s, have heavily utilized the flag of convenience. Most commonly used flags are Liberian, Panamanian, Cypriot (although today, less so), and Korean. Figure 19 shows the development of the Greek Fleet since 1948, breaking it down into Greek registered vessels and foreign registered vessels. Figure 20 breaks the foreign flagged Greek-owned fleet into different flags.

Why would Greek shipowners utilize flags of convenience so heavily? Alderton advocates four reasons why a shipowner might use a flag of convenience. First, freedom from taxation. Although this argument might be valid for the

12 See chapter two.
FIGURE 18

GROWTH OF MERCHANT FLEETS

SOURCE: ALDERTON, 1980

Year | Flags of Convenience as a percentage of World Total
--- | ---
1939 | 0.6 | 1.2
1950 | 2.4 | 4.9
1960 | 4.8 | 12.4
1970 | 6.9 | 19.3
1978 | 11.8 | 27

SOURCE: ALDERTON, 1980
DEVELOPMENT OF GREEK OWNED TONNAGE (MILLIONS)

- TOTAL FLEET
- GREEK FLAG
- CONVENIENCE FLAG

Source: Shipping Statistics

Comparative evolution of the capacity of Greek-owned merchant fleet. Distribution by flag.
Years 1974 - 1979

<table>
<thead>
<tr>
<th>Τέλος περιόδου</th>
<th>Σύνολο K.O.X.</th>
<th>Τάξης περιόδου</th>
<th>Σούνοικο K.O.X.</th>
<th>Σούνοικο G.R.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>52.587.183</td>
<td>1977</td>
<td>23.575.532</td>
<td>12.251.225</td>
</tr>
<tr>
<td>1979</td>
<td>53.221.387</td>
<td>1979</td>
<td>38.811.930</td>
<td>12.150.540</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Τάξης περιόδου</th>
<th>Σούνοικο K.O.X.</th>
<th>Σούνοικο G.R.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>21.83m</td>
<td>87m</td>
</tr>
<tr>
<td>1973</td>
<td>17.08m</td>
<td>64m</td>
</tr>
<tr>
<td>1968</td>
<td>13.3m</td>
<td>30m</td>
</tr>
</tbody>
</table>

**Source:** a) For ships under Greek flag, NSSO.  
b) For ships under foreign flag, the periodical "Nafika Chronikas."  
**Note:** Including merchant ships contracting or not with NAT.  
* Revised data.  
**Source:** SHIPPING STATISTICS, 1979

### GREEK-OWNED FLEET AS PERCENT OF FLAG

<table>
<thead>
<tr>
<th>Flag</th>
<th>1978</th>
<th>1973</th>
<th>1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek</td>
<td>69.2%</td>
<td>51.2%</td>
<td>36.6%</td>
</tr>
<tr>
<td>Liberia</td>
<td>26.3%</td>
<td>40.1%</td>
<td>55.8%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>3.1%</td>
<td>6.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Panama</td>
<td>1.3%</td>
<td>1.7%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Other</td>
<td>0.1%</td>
<td>0.1%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

### GREEK-OWNED FLEET BY FLAG GRT

<table>
<thead>
<tr>
<th>Flag</th>
<th>1978</th>
<th>1973</th>
<th>1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek</td>
<td>36.31m</td>
<td>21.83m</td>
<td>8.74m</td>
</tr>
<tr>
<td>Liberia</td>
<td>13.33m</td>
<td>17.08m</td>
<td>13.34m</td>
</tr>
<tr>
<td>Cyprus</td>
<td>1.66m</td>
<td>2.03m</td>
<td>0.08m</td>
</tr>
<tr>
<td>Panama</td>
<td>0.66m</td>
<td>0.76m</td>
<td>0.03m</td>
</tr>
<tr>
<td>Other</td>
<td>0.10m</td>
<td>0.10m</td>
<td>0.30m</td>
</tr>
<tr>
<td>Fleet</td>
<td>52.49m</td>
<td>42.63m</td>
<td>23.89m</td>
</tr>
</tbody>
</table>

**Source:** NAPITILIAKI, 1979
majority of countries, it is not for Greece. As can be seen from Table 8, Greek shipowners are only taxed per gross registered ton— not as all other countries in the table, by profit. There is, therefore, no tax incentive to deflagging, i.e., changing the registry of a vessel for Greek shipowners. Second, avoidance of disadvantages, restrictions, and the possibility of being discriminated against if operating under one's own flag. This is a major argument for the use of flags of convenience. In the last century there have been numerous political upheavals in Greece that have led to a flurry of deflagging by Greek shipowners. Most notable were the political instabilities after World War II. Third, possible reduction in operating costs, particularly relevant to Greek shipowning. With rising living standards in Greece, relative to the other shipping nations, crews have become progressively more expensive. Thus, by deflagging, foreign crews can be employed at lower wages, reducing operating costs. Economies can also be made because of lower safety standards under flags of convenience. Fourth, greater operational freedom. Greek shipowners have much operational freedom, and this, therefore, is not an incentive for shipowners to deflag. The avoidance of disadvantages if operating under the Greek flag and the reduction in operating costs are incentives for Greek shipowners to utilize flags of convenience. The question of the use of the flags of convenience is central to the present crisis, and will be pursued, in more detail, later.
### TABLE 8: SUMMARY OF TAX REGIMES FOR SHIPOWNING COMPANIES AS IN AUGUST 1980

<table>
<thead>
<tr>
<th>Category</th>
<th>Belgium</th>
<th>Denmark</th>
<th>France</th>
<th>Germany F.R.</th>
<th>Greece</th>
<th>Italy</th>
<th>Netherlands</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Tax Rate (%) on Company Profits (Including Local Taxes)</td>
<td>48.0</td>
<td>57.0</td>
<td>50.0</td>
<td>56.0</td>
<td>40.0</td>
<td>48.0</td>
<td>73.0</td>
<td>52.0</td>
</tr>
<tr>
<td>Tax Rate (%) on Net Worth</td>
<td>-</td>
<td>-</td>
<td>1.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tax Related to Age and Size of Vessels</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Taxes on Payroll and Numbers Employed: Nominal Rates</td>
<td>24.1% on wages</td>
<td>U.S. $ 85.0 per seaman per annum plus variable contributions</td>
<td>U.S. $ 31.91% on wages plus variable contributions</td>
<td>U.S. $ 18.20% on wages plus variable contributions</td>
<td>11.14% on wages plus variable contributions (\text{(Extra 2% to come into force shortly)})</td>
<td>40.55% on wages plus variable contributions (\text{(for injuries and occ. diseases)})</td>
<td>26.51% on wages plus variable contributions (\text{(for injuries and occ. diseases)})</td>
<td>10.3% on wages plus variable contributions (\text{(for injuries and occ. diseases)})</td>
</tr>
<tr>
<td></td>
<td>12.53% on wages</td>
<td>U.S. $ 54.0 per seaman per annum plus variable contributions</td>
<td>U.S. $ 15.96% on wages plus variable contributions</td>
<td>U.S. $ 8.01% on wages plus variable contributions</td>
<td>11.14% on wages plus variable contributions (\text{(Extra 2% to come into force shortly)})</td>
<td>24.33% on wages plus variable contributions (\text{(for injuries and occ. diseases)})</td>
<td>17.78% on wages plus variable contributions (\text{(for injuries and occ. diseases)})</td>
<td>5.16% on wages plus variable contributions (\text{(for injuries and occ. diseases)})</td>
</tr>
<tr>
<td>Degree of Public Sector Involvement in the Funds for Social Security (%)</td>
<td>35.5</td>
<td>86.5</td>
<td>29.8</td>
<td>36.5</td>
<td>0</td>
<td>31.3</td>
<td>24.8</td>
<td>48.5</td>
</tr>
</tbody>
</table>

in this thesis.

Finally, flags of convenience tend to be negatively perceived, and with good reason. The extensive utilization of them by Greek shipowners, thus, casts a shadow on Greek shipping. Utilizers of flags of convenience are thought to be irresponsible - not carrying their fair share of responsibility in the world shipping community. For instance, the safety record of flag of convenience countries is particularly bad. Few are members of the International Chamber of Shipping, nor are they concerned with the expensive problem of training seafarers as they gain their crews by poaching from traditional maritime countries.

The utilization of flags of convenience is unpatriotic and unsupportive of one's country, especially economically. Their use, however, as many shipowners today would argue, is necessary in order to survive in today's viciously competitive shipping world. It is, therefore, the responsibility of governments to pass legislation and pursue policies that encourage shipowners to stay at home - and not drive them away.
EX-PATRIATE NATURE OF GREEK SHIPPING

The curtailment of Greek liberties during the eighteenth and nineteenth centuries led to the evolution of a largely expatriate Greek shipping community (See Chapter 2). By the mid-twentieth century this characteristic of Greek shipping had been consolidated, especially by the political instabilities in Greece after World War II. What this meant was that the tremendous success of Greek shipowners was having little impact on Greece itself. With their headquarters in some tax haven, managed from London or New York, and flying various flags of convenience, about the only contribution the Greek shipping fleets made to Greece was through pay packets of Greek seamen. The Junta, 14 during their coup years, changed the tax laws to bring Greek shipowners back to Greece. Under Laws 89 and 378, Onassis and Niarchos, and other expatriates, could set up regional offices in Greece without having to pay any form of Greek income or company taxation. 15 The response to these dynamic tax laws was positive, and Greek shipowners began to take a much closer interest in the Greek economy.

The tale narrated above has three important implications for Greek shipping. (a) The fragmentation and

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14 Greece had a coup in 1967. The Junta, ie, the leaders of the 1967 coup, ruled the country until 1974.
independence of the Greek shipping community; (b) the inter-relationship with the government; and (c) the employment of foreign crew. Each of these implications will be discussed beneath.

(a) Fragmentation and Independence

First, this expatriate nature of Greek shipowning, combined with the style of ownership described earlier, means that Greek shipping is even more fragmented and independent than was previously implied. Unification, which was difficult to envision when considering merely the multiplicity of the Greek shipping community, now becomes an abstract concept, with the dispersion of this community all over the globe. Further, when one considers the cosmopolitanization of Greek shipowners, this is again made worse. With the advent of a new crisis, the rallying around the flag that has occurred in the past, and, indeed, has been the savior of Greek shipping, might not materialize again. Fleets today are being commanded by the sons of Greek sea captains; their affinities are different from their fathers'. Being reared in the halls of English society, at Eton, Harrow, Oxford and Cambridge, will they heed to the beckoning of their country? Only time can answer this.

(b) Inter-relationship with Government

The second implication of the expatriate nature of Greek shipowners has been the Greek shipping community's
inter-relationship with the government. The relationship that has evolved has been one of hostility. The reason for this is that the government sees the shipping community as being selfish and unpatriotic, with their amassed wealth outside Greek jurisdiction.

The hostility of the Greek government towards the shipping community is totally unjustified. First, the Greek shipping community is neither selfish nor unpatriotic. History speaks for itself, and, time and time again, the shipping community has come to the rescue of the nation. The community's altruistic tendency, often for the benefit of Greece, has also been witnessed in many a philanthropic deed – like Onassis's sale of Olympic Airways to the government for a paltry US$ 70 million. On top of this, it is not by choice, or for a fatter profit, (argues Karageorgis, President of the Union of Greek Shipowners), that Greek-owned vessels operate under foreign flags, but for survival. Karageorgis believes that any Greek shipowner who can operate his vessels under the Greek flag with a full Greek crew will do so. “This is not a pipe dream”, he told the author, 16 "but it is an ideal situation from which the hard facts of present-day life are pushing us further away."

Second, in spite of what has gone before, Greek shipping does have an impact on the Greek economy. In financial terms, the shipping industry, and all its offshoots, is the

16 See McHugo INTERVIEW #5.
largest sector of the economy. The exchange inflows from shipping are huge. The shipping exchange inflow compared to the tourist and emigrant exchange inflows can be seen in figure 21. Since 1966, shipping has consistently been more important than tourism. In 1975, Greece's shipping foreign exchange earnings were large enough to offset a quarter of the trade deficit. 17 The importance of shipping goes far beyond foreign exchange earnings. Beside the employment of crew, which will be discussed later in this chapter, as many as two out of every five 18 people in Greece are employed in some facet of shipping. There are the shipyards - both for construction and repair; the ship chandlers, supplying anything from ship parts to food supplies; bunkering (supplying fuels to vessels); the stevedores (the workers that load and unload vessels) and other dock workers; the hierarchy of officiandom, starting with the Ministry of Mercantile Marine down to the customs men that check vessels prior to departure; the port of Piraeus, with its myriad of shipping offices, travel agencies, banks, and not forgetting the entertainment provided for visiting sailors.

These offshoots of shipping provide more than employment. On top of gross shipping earnings, which accounted for 3.5% of the gross national product in 1970, as much as

18 See McHUGO INTERVIEW #11, with David Glass, Editor of "Naftiliaki".
20% of GNP originated from shipping activity. The trade balance is another area where, interestingly enough, shipping has an impact. As can be seen in Table 9, trade of merchandise is calculated f.o.b. This makes sense, considering most of the trade is carried out on Greek ships. However, if this were not the case, one would then need to calculate imports including transportation costs, which would run as high as ten percent of imports.

The actual benefits of shipping to Greece have been discussed, but not the potential benefits. It is these lost benefits that, perhaps, perturb the government. The major potential benefits are in shipbuilding and ship repairing. With the large fleet that Greece has, one would assume that it would also have large shipbuilding and ship repairing facilities. This is not, however, the case. Table 10 shows the breakdown of new Greek-owned constructions for the year 1976. Out of a total of 100 new constructions completed, only seven were built in Greece— the rest in Japan and shipyards all over the world. Table 11 shows worldwide shipbuilding activity; Greece figures very low in terms of production, with only 97 Gross Registered Tons, compared to, for example, Denmark with 1,034 thousand GRT. The example of Denmark is apt, for it faces production possibilities

---

20 Free on board.
### TABLE 9


<table>
<thead>
<tr>
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<td>Million drachmas at current prices</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>b) Transportation</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Other services</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. Receipts from the rest of the world</td>
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</tr>
<tr>
<td>a) Transportation</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Other expenditures</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>3. Income payments from the rest of the world</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Salaries and wages</td>
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<td>4. Purchases of goods and services from the rest of the world</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
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<td></td>
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</tr>
<tr>
<td>b) Transportation</td>
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<tr>
<td>c) Other services</td>
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<tr>
<td>a) Transportation</td>
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<tr>
<td>b) Other expenditures</td>
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<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Salaries and wages</td>
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<tr>
<td>7. Balance of goods, services from, and income payments to the rest of the world</td>
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<tr>
<td>8. Current transfers from the rest of the world</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>a) To government</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>b) To households</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>9. Less: Current transfers to the rest of the world</td>
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<td></td>
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<tr>
<td>a) From government</td>
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<td>12. Net lending</td>
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* Provisional data.

SOURCE: SHIPPING STATISTICS 1969
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<th></th>
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<td>Brazil</td>
<td>2,854,043</td>
<td>55</td>
<td>1,065,980</td>
<td>3</td>
<td>206,141</td>
<td>18</td>
</tr>
<tr>
<td>France</td>
<td>18,600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Germany</td>
<td>18,600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>18,600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>18,600</td>
<td></td>
<td></td>
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<tr>
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<td>18,600</td>
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<td></td>
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<td>18,600</td>
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<tr>
<td>Finland</td>
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<td></td>
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</tr>
</tbody>
</table>

**TOTAL:** 1 Launches/Total | 2,854,043 | 55 | 1,065,980 | 3 | 206,141 | 18 | 1,308,995 | 24 | 171,527

**SOURCE:** SHIPPING STATISTICS, 1976
### Table 11
World shipbuilding industry by countries

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Tankers</th>
<th>Under construction</th>
<th>Ordered</th>
</tr>
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<td>1973</td>
<td>29,840</td>
<td>14,321</td>
<td>28,758</td>
<td>100,141</td>
</tr>
<tr>
<td>1974</td>
<td>33,085</td>
<td>20,799</td>
<td>31,704</td>
<td>88,999</td>
</tr>
<tr>
<td>1975</td>
<td>33,674</td>
<td>22,703</td>
<td>34,640</td>
<td>70,286</td>
</tr>
<tr>
<td>1976</td>
<td>33,692</td>
<td>19,760</td>
<td>32,280</td>
<td>27,132</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Total</th>
<th>Tankers</th>
<th>Under construction</th>
<th>Ordered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Austria</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Argentina</td>
<td>212</td>
<td>161</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Belgium</td>
<td>1,672</td>
<td>1,322</td>
<td>1,666</td>
<td>1,692</td>
</tr>
<tr>
<td>Brazil</td>
<td>355</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>3,875</td>
<td>901</td>
<td>1,477</td>
<td>936</td>
</tr>
<tr>
<td>Germany West (F.R.)</td>
<td>357</td>
<td>438</td>
<td>1,170</td>
<td>321</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>-</td>
<td>-</td>
<td>166</td>
<td>22</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Denmark</td>
<td>1,034</td>
<td>716</td>
<td>254</td>
<td>925</td>
</tr>
<tr>
<td>Greece</td>
<td>97</td>
<td>739</td>
<td>1,216</td>
<td>220</td>
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<tr>
<td>United Kingdom</td>
<td>814</td>
<td>641</td>
<td>2,010</td>
<td>1,545</td>
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<tr>
<td>USA</td>
<td>15,567</td>
<td>9,316</td>
<td>8,056</td>
<td>10,684</td>
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<td>Japan</td>
<td>292</td>
<td>-</td>
<td>1,401</td>
<td>1,428</td>
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<td>Ireland</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>6</td>
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<tr>
<td>Spain</td>
<td>714</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Italy</td>
<td>244</td>
<td>121</td>
<td>-</td>
<td>1,428</td>
</tr>
<tr>
<td>Canada</td>
<td>813</td>
<td>653</td>
<td>829</td>
<td>821</td>
</tr>
<tr>
<td>New Zealand</td>
<td>603</td>
<td>414</td>
<td>377</td>
<td>688</td>
</tr>
<tr>
<td>South Korea</td>
<td>-</td>
<td>-</td>
<td>257</td>
<td>175</td>
</tr>
<tr>
<td>Netherlands</td>
<td>565</td>
<td>222</td>
<td>299</td>
<td>1,081</td>
</tr>
<tr>
<td>Portugal</td>
<td>207</td>
<td>21</td>
<td>58</td>
<td>322</td>
</tr>
<tr>
<td>Poland</td>
<td>558</td>
<td>513</td>
<td>571</td>
<td>2,497</td>
</tr>
<tr>
<td>Norway</td>
<td>2,514</td>
<td>1,122</td>
<td>1,197</td>
<td>1,534</td>
</tr>
<tr>
<td>Sweden-Switzerland</td>
<td>-</td>
<td>-</td>
<td>88</td>
<td>101</td>
</tr>
<tr>
<td>Singapore</td>
<td>-</td>
<td>-</td>
<td>280</td>
<td>345</td>
</tr>
<tr>
<td>Turkey</td>
<td>32</td>
<td>1</td>
<td>115</td>
<td>55</td>
</tr>
<tr>
<td>Finland</td>
<td>249</td>
<td>61</td>
<td>-</td>
<td>470</td>
</tr>
<tr>
<td>Germany</td>
<td>515</td>
<td>183</td>
<td>-</td>
<td>470</td>
</tr>
</tbody>
</table>

**Sources:** Lloyd's Register, Shipbuilding Returns (fourth quarter).

**Notes:**
1. Including ships of 100 G.R.T. or over.
2. Vessels built in the USSR, the People's Republic of China and Romania are excluded.
3. Incomplete figures.
4. Vessels under construction only.
5. Data includes more than 100,000 G.R.T. under construction or on order.

### Table 12
Shiprepairing activity during 1976

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr.</td>
<td>1,590</td>
<td>10,602.456</td>
<td>551</td>
<td>5,379.525</td>
</tr>
<tr>
<td>May</td>
<td>1,639</td>
<td>5,222.931</td>
<td>552</td>
<td>2,298.482</td>
</tr>
</tbody>
</table>

**Sources:**
1. Ministry of Mercantile Marine.
2. Dry docking in addition to repair.
3. **Shipping Statistics** 1976
similar to Greece (yet it does not have such a large fleet). Table 8 shows ship repairing activity in Greece in 1976. A total 1,590 vessels were repaired. When one considers the frequency with which a vessel needs to be repaired, the size of the Greek fleet, and the geographical location of Greece, at the entrance to the Suez Canal, this is very small.

Why does Greece have such limited shipbuilding and ship repairing facilities? The facilities do exist, on a limited scale: 22 the two largest are the Hellenic 23 and Eleusis Shipyards, and there are a number of smaller yards at Perama. There are, however, only these, and they are not used to their fullest potential. The reason for this is the lack of government funds for subsidization of the yards (which is common in most shipbuilding countries) and the cyclical nature of shipping. During recessions, the demand for new constructions is very low, and, thus, the shipyards lie idle. In Greece, with no subsidies either for the yards or for the financing of new constructions for owners, the shipyards verge on bankruptcy in times of recession. In times of prosperity, there is no opportunity to expand, since the idle yards come into production, prohibiting the entrance of new yards into the market. Thus Greece foregoes the potential benefit of its shipping dynasty. In reality, this might not be a bad thing, because, although there is no

23 Originally constructed by Niarchos.
question that Greece has a comparative advantage in shipping, it is questionable whether Greece has a Comparative advantage in shipbuilding. If it does not, then subsidization of further shipbuilding activity would actually negatively effect the welfare of Greece.

There are other examples of relinquished benefits from shipping. The periodical "NAFTIKA CHRONIKA" picks up on one of the more interesting of these. 24 An estimated 1 million calls in port are made by Greek ships each year. It is customary, every time one calls in port, to give the agents that board one's vessel a bottle of whiskey and a carton of cigarettes (vessels are entitled to carry these duty free). That is one million bottles of whiskey and one million cartons of cigarettes a year. Why not, the periodical suggests, offer bottles of ouzo and Metaxa brandy, and Greek cigarettes, instead, and support the economy!

The contributions shipping makes to the Greek economy are huge, even if they are not optimized. It is, therefore, up to the government to change its hostile disposition and cooperate with the shipping community, in order that inevitable gains might be made on both sides.

(c) Employment of Crew

The third implication of the expatriate nature of Greek shipowners and, also, of the utilization of flags of

24 See Naftika Chronika, June 1976, p. 121.
convenience, is the employment of crew. A Greek registered vessel must have a predominantly Greek crew. The actual ratio of Greek to foreign crew changes over time with government policies and legislation. However, a Greek-owned vessel, registered under another flag, is not forced to have a Greek crew. The employment of Greek and foreign crew can be seen in table 13. Whereas on Greek vessels only 30% of the crew are foreign, over 40% of the crew are foreign on vessels registered under foreign flags. Although this might not seem much of a difference, it is. This is because around 40% of a crew are lower-deck hands and 60% of a crew are officers. On Greek registered vessels, officers will always be Greek. On foreign flag vessels, therefore, 100% of the lower-deck crew are foreigners, whereas on Greek vessels, only 75% are. Therefore, as more and more of the vessels use flags of convenience, the employment of Greek crew will decline. This is supported by Table 14. During the early 1970s the Greek-owned fleet grew expansively, yet the employment of Greek crew actually declined during the period - from 98,425 in 1971 to 95,930 in 1975.

The breakdown of crews by country can be seen in Table 15. All of these countries are lesser developed countries

25 During the 1970s, under Articles 87 and 88 of the Code of Public Maritime Law, 25% of lower crew could be foreigners.
26 Note this exceeds the limit set by the government.
27 See chapter 4, BILATERAL CREWS, for further discussion on crews.
TABLE 13

Greek and foreign masters, officers and ratings employed, on 30 Nov. 1978, on merchant ships of 100 G.R.T. and over, under Greek flag or Greek-owned under foreign flag, contracted with the Seamen’s Pension Fund. Distribution by speciality.

<table>
<thead>
<tr>
<th>Speciality</th>
<th>Greek Seamen</th>
<th>Greek Masters</th>
<th>Greek Officers</th>
<th>Non-Greek Seamen</th>
<th>Non-Greek Masters</th>
<th>Non-Greek Officers</th>
<th>Total Seamen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seamen</td>
<td>115,269</td>
<td>3,938</td>
<td>78</td>
<td>17,760</td>
<td>639</td>
<td>17</td>
<td>15,025</td>
</tr>
<tr>
<td>Officers</td>
<td>121</td>
<td>64</td>
<td>8</td>
<td>118</td>
<td>12</td>
<td>2</td>
<td>166</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>100</td>
<td>89</td>
<td>18,878</td>
<td>651</td>
<td>19</td>
<td>16,191</td>
</tr>
</tbody>
</table>

(1) Including captains acting as masters.

(2) Including apprentice engineers reported as cadets by their masters.

SOURCE: SHIPPING STATISTICS 1978
### TABLE 14

Greek seamen enlisted\(^{(1)}\) in Greek-owned merchant ships under Greek or foreign flag. Distribution by major groups of specialities: 1971 - 1975

|----------------|------|------|------|------|------|

|----------------|------|------|------|------|------|

\(^{(1)}\) Including seamen enlisted by the Seamen's Employment Office.

**SOURCE:** SHIPPING STATISTICS

1975
Seamen employed, on 30 Nov. 1978, on merchant ships of 100 G.R.T. and over, under Greek flag or Greek-owned under foreign flag, contracted with the Seamen's Pension Fund. Distribution by nationality of seamen and category of ships

<table>
<thead>
<tr>
<th>Category of ships</th>
<th>Number of seamen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo ships</td>
<td>62,902</td>
</tr>
<tr>
<td>Tankers</td>
<td>14,669</td>
</tr>
<tr>
<td>Passenger ships</td>
<td>7,319</td>
</tr>
<tr>
<td>Total</td>
<td>86,289</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>51,087</td>
</tr>
<tr>
<td>Egypt</td>
<td>4,470</td>
</tr>
<tr>
<td>Philippines</td>
<td>4,385</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2,748</td>
</tr>
<tr>
<td>India</td>
<td>2,455</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1,335</td>
</tr>
<tr>
<td>Chile</td>
<td>2,042</td>
</tr>
<tr>
<td>Portugal</td>
<td>799</td>
</tr>
<tr>
<td>Honduras</td>
<td>695</td>
</tr>
<tr>
<td>Syria</td>
<td>567</td>
</tr>
<tr>
<td>Cyprus</td>
<td>412</td>
</tr>
<tr>
<td>Ghana</td>
<td>326</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3,396</td>
</tr>
<tr>
<td>Other</td>
<td>15,045</td>
</tr>
</tbody>
</table>

| Source: Shipping Statistics 1978 |
(LDCs). These crews have been employed, not because they are necessarily good seamen, but because they are cheap labor. The cost of the labor, as will be seen later in this thesis, is one of the major reasons for deflagging and the utilization of flags of convenience. Living standards in Greece have been steadily rising since World War II, and, thus, crews have demanded higher wages. Table 16 shows the growth of wages between 1972 and 1979. During this period, captain's wages increased 166%, and electrician's wages over 200%. The freight rate, however, has not increased nearly as rapidly. As a result, shipowners have been forced to find cheaper crews.

The employment of cheap foreign labor has created new problems for shipowners. First, from the government. The government favors the employment of Greek crews, and have adopted legislation forcing the employment of Greek crews on Greek vessels. Second, from the seamen's union in Greece, the Panhellenic Seamen's Union (PNO). Third, from international labor organizations, namely the International Transport Workers Federation (ITF). They were especially troublesome in the 1970s to Greek vessels while in port.

The expatriate nature of Greek shipping, with the implications outlined above, has caused a multitude of complications for Greek shipping, and continues to today. Whether these complications are avoidable, is a question
**TABLE 16**

**THE INCREASE OF WAGES ON GREEK VESSELS, 1972-1979**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPTAIN</td>
<td>26.712</td>
<td>37.4%</td>
<td>42.4%</td>
<td>87.2%</td>
<td>106.0%</td>
<td>156.2%</td>
</tr>
<tr>
<td>FIRST OFFICER</td>
<td>21.915</td>
<td>30.6%</td>
<td>38.0%</td>
<td>76.2%</td>
<td>88.7%</td>
<td>134.7%</td>
</tr>
<tr>
<td>SECOND OFFICER</td>
<td>16.892</td>
<td>30.9%</td>
<td>38.7%</td>
<td>75.1%</td>
<td>87.6%</td>
<td>132.4%</td>
</tr>
<tr>
<td>CHIEF MECHANIC</td>
<td>20.021</td>
<td>46.3%</td>
<td>52.2%</td>
<td>86.1%</td>
<td>99.7%</td>
<td>179.6%</td>
</tr>
<tr>
<td>FIRST ENGINEER</td>
<td>21.915</td>
<td>30.6%</td>
<td>38.0%</td>
<td>76.2%</td>
<td>88.7%</td>
<td>134.7%</td>
</tr>
<tr>
<td>SECOND ENGINEER</td>
<td>18.515</td>
<td>41.1%</td>
<td>48.9%</td>
<td>100.3%</td>
<td>113.8%</td>
<td>165.3%</td>
</tr>
<tr>
<td>RADIO OFFICER</td>
<td>16.368</td>
<td>38.0%</td>
<td>45.7%</td>
<td>97.1%</td>
<td>110.4%</td>
<td>160.6%</td>
</tr>
<tr>
<td>ELECTRICIAN</td>
<td>14.597</td>
<td>64.0%</td>
<td>73.3%</td>
<td>118.9%</td>
<td>134.3%</td>
<td>190.7%</td>
</tr>
<tr>
<td>CHIEF-MATE</td>
<td>14.647</td>
<td>34.2%</td>
<td>44.2%</td>
<td>86.5%</td>
<td>99.7%</td>
<td>156.8%</td>
</tr>
<tr>
<td>BOATMATE</td>
<td>11.025</td>
<td>29.8%</td>
<td>39.0%</td>
<td>78.3%</td>
<td>90.9%</td>
<td>145.2%</td>
</tr>
<tr>
<td>BARBECUE</td>
<td>11.317</td>
<td>29.4%</td>
<td>38.6%</td>
<td>76.8%</td>
<td>89.9%</td>
<td>142.2%</td>
</tr>
<tr>
<td>DRIVER</td>
<td>8.507</td>
<td>28.6%</td>
<td>37.8%</td>
<td>74.9%</td>
<td>86.8%</td>
<td>136.5%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>8.044</td>
<td>28.6%</td>
<td>37.6%</td>
<td>75.2%</td>
<td>86.8%</td>
<td>131.1%</td>
</tr>
<tr>
<td>1st CLASS MECHANIC</td>
<td>14.271</td>
<td>30.6%</td>
<td>38.5%</td>
<td>75.3%</td>
<td>87.7%</td>
<td>140.1%</td>
</tr>
<tr>
<td>2nd CLASS MECHANIC</td>
<td>12.292</td>
<td>30.1%</td>
<td>38.4%</td>
<td>75.3%</td>
<td>87.5%</td>
<td>139.7%</td>
</tr>
<tr>
<td>CHIEF FIREMAN</td>
<td>12.624</td>
<td>30.2%</td>
<td>38.9%</td>
<td>76.9%</td>
<td>89.3%</td>
<td>142.5%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>11.712</td>
<td>29.8%</td>
<td>38.2%</td>
<td>75.3%</td>
<td>87.6%</td>
<td>140.0%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>8.507</td>
<td>28.6%</td>
<td>37.8%</td>
<td>74.9%</td>
<td>86.3%</td>
<td>138.5%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>10.963</td>
<td>29.8%</td>
<td>38.3%</td>
<td>74.9%</td>
<td>87.0%</td>
<td>139.0%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>8.044</td>
<td>28.6%</td>
<td>37.6%</td>
<td>75.2%</td>
<td>86.9%</td>
<td>138.9%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>14.233</td>
<td>42.1%</td>
<td>51.3%</td>
<td>95.6%</td>
<td>108.6%</td>
<td>167.4%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>13.033</td>
<td>42.5%</td>
<td>52.4%</td>
<td>97.7%</td>
<td>110.9%</td>
<td>170.6%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>9.663</td>
<td>41.5%</td>
<td>53.0%</td>
<td>96.8%</td>
<td>110.9%</td>
<td>170.6%</td>
</tr>
<tr>
<td>CREW CREW</td>
<td>8.506</td>
<td>40.9%</td>
<td>52.4%</td>
<td>97.8%</td>
<td>110.8%</td>
<td>162.2%</td>
</tr>
</tbody>
</table>

**Source:** Los, 1981
that needs to be answered in the present crisis. It is also a question the government would like to know the answer to. For is the expatriate nature of Greek shipping a manifestation peculiar to its survival, or is it a manifestation of greed and the desire of a fatter profit margin?

MORTGAGING AND DEBT

The annual debt of the Greek shipping community is larger than that of the Greek government. Greek shipowners have a very high gearing ratio, which is evidenced in Figure 22, with over one half of the fleet being mortgaged for loans each year. As can be seen in Table 17, the breakdown of mortgaged vessels is very even. There is no heavy concentration of new or old vessels, and vessels of all sizes are mortgaged for loans. This suggests that the whole spectrum of shipowners utilize external finance. The two major sources for external finance are the capital markets, and banks and finance houses. Use of capital houses is restricted, first, because of the structure of Greek ownership, with families not desiring to lose control, and, second, the instability of earnings. The banks and finance houses, and particularly the former, have provided the bulk of finance for ship purchases. These funds come mainly from the euro-currency markets, and are on-lent to shipowners in the form
Greek merchant ships of 100 gross tons and over mortgaged for loans, by tonnage and age groups, as on December 31st, 1975

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>100 - 999</td>
<td>1,687</td>
<td>17,491,762</td>
<td>319</td>
<td>4,788,664</td>
<td>298</td>
<td>4,346,246</td>
<td>209</td>
<td>2,892,083</td>
<td>238</td>
<td>2,330,728</td>
<td>107</td>
<td>1,578,672</td>
<td>107</td>
<td>1,578,672</td>
</tr>
<tr>
<td>1,000 - 4,999</td>
<td>212</td>
<td>218,295</td>
<td>19</td>
<td>29,214</td>
<td>15</td>
<td>35,064</td>
<td>8</td>
<td>12,953</td>
<td>15</td>
<td>21,967</td>
<td>17</td>
<td>13,760</td>
<td>17</td>
<td>13,760</td>
</tr>
<tr>
<td>5,000 - 9,999</td>
<td>67</td>
<td>189,046</td>
<td>10</td>
<td>24,704</td>
<td>12</td>
<td>32,288</td>
<td>8</td>
<td>21,135</td>
<td>16</td>
<td>21,444</td>
<td>19</td>
<td>17,845</td>
<td>18</td>
<td>17,845</td>
</tr>
<tr>
<td>10,000 - 19,999</td>
<td>102</td>
<td>152,292</td>
<td>15</td>
<td>52,574</td>
<td>41</td>
<td>10,157</td>
<td>4</td>
<td>15,107</td>
<td>22</td>
<td>21,749</td>
<td>19</td>
<td>21,749</td>
<td>17</td>
<td>21,749</td>
</tr>
<tr>
<td>20,000 - 29,999</td>
<td>35</td>
<td>219,854</td>
<td>5</td>
<td>21,590</td>
<td>25</td>
<td>17,734</td>
<td>17</td>
<td>15,734</td>
<td>15</td>
<td>19,749</td>
<td>8</td>
<td>21,749</td>
<td>16</td>
<td>21,749</td>
</tr>
<tr>
<td>30,000 - 49,999</td>
<td>50</td>
<td>242,893</td>
<td>6</td>
<td>36,417</td>
<td>4</td>
<td>14,270</td>
<td>13</td>
<td>18,656</td>
<td>11</td>
<td>19,845</td>
<td>10</td>
<td>21,749</td>
<td>9</td>
<td>21,749</td>
</tr>
<tr>
<td>50,000 - 99,999</td>
<td>56</td>
<td>393,286</td>
<td>9</td>
<td>73,274</td>
<td>10</td>
<td>49,785</td>
<td>8</td>
<td>45,785</td>
<td>11</td>
<td>43,785</td>
<td>7</td>
<td>24,379</td>
<td>10</td>
<td>24,379</td>
</tr>
<tr>
<td>100,000 - 19,999</td>
<td>122</td>
<td>2,993,721</td>
<td>19</td>
<td>538,297</td>
<td>39</td>
<td>179,805</td>
<td>40</td>
<td>188,805</td>
<td>40</td>
<td>188,805</td>
<td>40</td>
<td>188,805</td>
<td>40</td>
<td>188,805</td>
</tr>
<tr>
<td>200,000 - 29,999</td>
<td>170</td>
<td>2,875,721</td>
<td>59</td>
<td>729,297</td>
<td>29</td>
<td>496,950</td>
<td>30</td>
<td>496,950</td>
<td>30</td>
<td>496,950</td>
<td>30</td>
<td>496,950</td>
<td>30</td>
<td>496,950</td>
</tr>
<tr>
<td>300,000 - 39,999</td>
<td>20</td>
<td>1,519,693</td>
<td>11</td>
<td>29,993</td>
<td>12</td>
<td>267,147</td>
<td>13</td>
<td>267,147</td>
<td>13</td>
<td>267,147</td>
<td>13</td>
<td>267,147</td>
<td>13</td>
<td>267,147</td>
</tr>
<tr>
<td>400,000 - 49,999</td>
<td>25</td>
<td>643,570</td>
<td>14</td>
<td>63,874</td>
<td>14</td>
<td>178,137</td>
<td>13</td>
<td>178,137</td>
<td>13</td>
<td>178,137</td>
<td>13</td>
<td>178,137</td>
<td>13</td>
<td>178,137</td>
</tr>
<tr>
<td>500,000 - 99,999</td>
<td>95</td>
<td>566,370</td>
<td>23</td>
<td>1,374,047</td>
<td>42</td>
<td>1,089,063</td>
<td>42</td>
<td>1,089,063</td>
<td>42</td>
<td>1,089,063</td>
<td>42</td>
<td>1,089,063</td>
<td>42</td>
<td>1,089,063</td>
</tr>
</tbody>
</table>

Source: Shipping Statistics, 1975
of term loans. 28 These loans are usually at medium term, with a fluctuating rate of interest (based on LIBOR). 29 but occasionally at a fixed rate.

There is no Greek bank with an internationally established ship finance department. 30 This is another example of an opportunity wasted by Greece from its shipping community. The National Bank of Greece, though it maintained a virtual monopoly until 1967, is no longer in the market, through lack of know-how and structural problems. Twenty-eight foreign banks, run mostly by Greeks, dominate the local ship finance market of U.S. $2.5-3.0 billion. They finance over 90% of ship purchases. Figure 23 shows the market share, dominated by American banks, of international banks.

The very high debt rate of Greek shipowners has two implications. First, it means that Greek shipowners are financially insecure, exacerbating any major problems that are faced by the Greek shipping community. Second, it makes the financing of Greek shipping a risky business.

The financial insecurity of Greek shipping becomes critical in times of recession. With freight rates at their lowest, shipowners have grave difficulties maintaining their

28 See Grammenos, 1979, p.11.
29 LONDON-INTERBANK-OFFER-RATE.
FIGURE 23
SHARE OF FINANCING OF THE GREEK ECONOMY BY FOREIGN BANKS (1982)

- CITIBANK: 43.3%
- OTHER BANKS: 18.8%
- AMERICAN EXPRESS: 15.9%
- CONTINENTAL: 11.0%
- CHASE MANHATTEN: 4.5%
- BANK OF AMERICA: 6.5%

SOURCE: GREEK ECONOMIC ALLIANCE, 1982
periodic payments on outstanding debts. The rolling-over of loans is very common. The laying-up of a vessel for many a shipowners often has catastrophic effects, namely bankruptcy, and the surrendering of the vessel to the bank concerned. The fact that no Greek banks are involved with financing vessels means that dispensation of any kind in times of trouble is unobtainable.

The rise of a Greek shipowner can be rapid - but often the fall can be even quicker - and far harder.

*     *     *

The characteristics of Greek shipping discussed in this chapter demonstrate how structurally unstable the industry is. That it is presently enduring a crisis probably comes as no surprise. What, however, might come as a surprise, is that these characteristics are not, in actuality, the cause of the present crisis. Rather, they are working to exacerbate it. The causes of Greece's present shipping crisis, and the decade leading up to the crisis, are the subject of the remainder of this thesis.
CHAPTER FOUR
PRELUDE TO THE 1980s CRISIS
The decade of the 1970s was the period in which Greek shipping reached its zenith. In 1979, after rapid expansion throughout the decade, the Greek-owned fleet was the largest fleet in the world, with over 55 million Gross Registered Tons, ahead of Japan, the United Kingdom, and the Soviet Union. In terms of registries, the Greek flag was the second largest fleet, behind Liberia. This can be seen in Table 1, which lists the 26 major fleets of the world from 1975 to 1979.

Circumstances were not, however, as bright as they appeared. The Greek fleet was on the verge of a crisis, that would become chronic in the 1980s. During the 1970s, this crisis was heralded by a number of structural problems for Greek shipping. These detrimental structural developments were as follows:

(1) Tonnage overcapacity;
(2) Bilateral crews;
(3) Inter-relationship with the government;
(4) Accession to European Economic Community.

These developments, along with the exacerbation of the characteristics of Greek shipping analyzed in the last chapter, which were also to play a role in the coming crisis, will be analyzed in this chapter. It should be noted that recession, the cyclical phenomenon that it is, was a dominant feature of the 1970s. Although there is no
<table>
<thead>
<tr>
<th>Flag</th>
<th>Bulk carriers</th>
<th>&quot;Bulk carriers&quot;</th>
<th>Oil</th>
<th>Tonnage</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Liberia</td>
<td>793</td>
<td>50,198</td>
<td>145</td>
<td>8,543</td>
<td>2,265</td>
<td>21,7</td>
</tr>
<tr>
<td>2. Greece</td>
<td>432</td>
<td>11,214</td>
<td>51</td>
<td>2,483</td>
<td>1,034</td>
<td>10,0</td>
</tr>
<tr>
<td>3. Japan</td>
<td>7,125</td>
<td>17,715</td>
<td>42</td>
<td>3,517</td>
<td>2,265</td>
<td>9,5</td>
</tr>
<tr>
<td>4. U.S.</td>
<td>419</td>
<td>13,113</td>
<td>37</td>
<td>2,392</td>
<td>2,265</td>
<td>6,4</td>
</tr>
<tr>
<td>5. Panama</td>
<td>331</td>
<td>6,335</td>
<td>10</td>
<td>9,143</td>
<td>2,265</td>
<td>6,4</td>
</tr>
<tr>
<td>6. Norway</td>
<td>173</td>
<td>12,284</td>
<td>35</td>
<td>2,353</td>
<td>2,265</td>
<td>5,4</td>
</tr>
<tr>
<td>7. USSR</td>
<td>503</td>
<td>4,823</td>
<td>9</td>
<td>470</td>
<td>2,265</td>
<td>3,4</td>
</tr>
<tr>
<td>8. United States</td>
<td>337</td>
<td>7,597</td>
<td>8</td>
<td>86</td>
<td>2,265</td>
<td>3,4</td>
</tr>
<tr>
<td>9. France</td>
<td>165</td>
<td>7,630</td>
<td>6</td>
<td>809</td>
<td>2,265</td>
<td>3,4</td>
</tr>
<tr>
<td>10. Spain</td>
<td>783</td>
<td>5,013</td>
<td>30</td>
<td>1,742</td>
<td>2,265</td>
<td>3,4</td>
</tr>
<tr>
<td>11. Italy</td>
<td>111</td>
<td>5,000</td>
<td>5</td>
<td>997</td>
<td>2,265</td>
<td>2,1</td>
</tr>
<tr>
<td>12. Singapore</td>
<td>157</td>
<td>3,005</td>
<td>4</td>
<td>772</td>
<td>2,265</td>
<td>2,1</td>
</tr>
<tr>
<td>13. West Germany</td>
<td>154</td>
<td>2,799</td>
<td>1</td>
<td>42</td>
<td>2,265</td>
<td>2,1</td>
</tr>
<tr>
<td>14. Belgium</td>
<td>177</td>
<td>1,005</td>
<td>15</td>
<td>55</td>
<td>2,265</td>
<td>2,1</td>
</tr>
<tr>
<td>15. Spain</td>
<td>77</td>
<td>7,000</td>
<td>15</td>
<td>55</td>
<td>2,265</td>
<td>2,1</td>
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<tr>
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<td>76</td>
<td>7,000</td>
<td>15</td>
<td>55</td>
<td>2,265</td>
<td>2,1</td>
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<tr>
<td>17. Holland</td>
<td>76</td>
<td>7,000</td>
<td>15</td>
<td>55</td>
<td>2,265</td>
<td>2,1</td>
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<td>7,257</td>
<td>4</td>
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<td>1,170</td>
<td>11</td>
<td>122</td>
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<td>2,1</td>
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<td>29</td>
<td>82</td>
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<td>22. Germany</td>
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<td>275</td>
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<td>2,1</td>
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<tr>
<td>23. Canada</td>
<td>23</td>
<td>275</td>
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<td>17</td>
<td>2,265</td>
<td>2,1</td>
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<td>24. Japan</td>
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<td>1,234</td>
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<td>2,1</td>
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<tr>
<td>25. Russia</td>
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<td>2,1</td>
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<tr>
<td>26. China</td>
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<td>246</td>
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<td>174,213</td>
<td>430</td>
<td>26,946</td>
<td>4,208</td>
<td>80,218</td>
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</table>

Source: ILO Annual Register of Shipping
specific section on recession in the 1970s in this chapter. recessions, along with their repercussions, will be frequently mentioned.

EXACERBATION OF OUTLINED CHARACTERISTICS

During the 1970s, a number of characteristics of Greek shipping analyzed in the preceding chapter became prevalent, both for their positive, and negative, implications. The most important of these were (a) the age of the fleet, accompanied by a disastrously high casualty rate; (b) the issue of "open registries", otherwise known as flags of convenience; and (c) the national impact of shipping.

a) Age Of Fleet

Greek shipowners, with good reason, have always been concerned about the mature age of their fleet. The Greek government, again with good reason, has been concerned as well. In fact, in the 1970s, the Greek government introduced a regulation that the upper age for vessels being newly transferred to the Greek Registry was 17 years. ¹

¹ See Naftiliaki, "Greek Shipping - 1981", p.25 It should be noted that the regulation is full of loopholes - for it does not apply for hulls sold for further trading under the home flags which are then registered as Greek outside of the Privileged Law 89/378 structure. Therefore, by introducing a middleman, the law can be circumvented.
implications of an old fleet were analyzed in the last chapter. During the 1970s, the most detrimental effect was on the reputations of Greek shipowners among the world shipping community, the insurance houses, and even the media.

Figure 1 describes the age distribution of the Greek fleet in 1979— with over a third of the fleet 20 years or older. This shows no improvement from the 1950s and 1960s. This, when compared to the age distribution of the Panamanian fleet, which is the same, does not seem bad. However, when compared to Liberia, with only 8% of their fleet older than 20 years, and other world fleets, it is atrocious. Additionally, the large quantity of old vessels in the Panamanian fleet can be accounted for by the fact that a sizable proportion of the fleet is comprised of Greek-owned tonnage. The proportion of Greek-owned tonnage under the Liberian flag is far smaller. Figure 2 compares the average age of the Greek fleet with the fleets of the EEC. Greece’s fleet is the oldest, with an average age of 17.9 years, followed by Italy with 17.7 years. Comparative, the age of Greece’s fleet is far worse than it might appear in Figure 2. Italy’s fleet is small (10 million tons) and, therefore, a few old vessels, will disrupt the average. For Greece’s average to be so high, means that there is a vast quantity of old vessels in the fleet. If compared to the United Kingdom’s fleet, which is closer in size, the average age is 12.9 years, which is five years
**FIGURE 1**

Age Distribution of the Greek Fleet, 1979

**FIGURE 2**

Age Comparison of Greek-Owned and EEC Merchant Fleets, 1976

Source: Shipping Statistics, 1979
younger than the Greek average. That means that, whereas the average British vessel has over seven years before it becomes "over-aged", the average Greek vessel has only two years. And twenty years is the age at which vessels ought to be replaced.

The disaster of the "Amoco Cadiz" brought the question of safety and protection of the environment, when the beaches of Brittany were polluted with more than 200,000 tons of crude oil, to the eye of the media. This was bad press for Greek shipping - for the casualty rate of Greek shipping during the 1970s was at its worst, and certainly worse than any other maritime nation. Figure 3 and Figure 4 show the casualty rate of the major fleets of the world during 1978. The casualty rate is divided into two categories - namely vessels "broken up" and vessels lost. In terms of vessels broken up, Greece rates well above the total fleet rate of around 2.5%, at 4.4%, with Panama at 4.9%, and Liberia at 4.1%. That Greece's rate is as high as Liberia's and Panama's is disconcerting. For both these countries are major flag of convenience registries. It is a well known fact that one of the advantages of a flag of convenience, is that they do not subscribe to world safety standards, such as those of the Inter-governmental Marine Consultative Organization (IMCO), a United Nations agency. This enables shipowners to obtain lower operating costs, and undercut their competitors. In view of this, their high broken up
FIGURE 3

PERCENTAGE OF WORLD FLEET, AND PRINCIPAL MARITIME COUNTRIES' FLEETS, BROKEN-UP, DURING 1978

FIGURE 4

rate is not surprising. That the Greek fleet, however, should have a broken up rate as high as theirs, is a very bad reflection on Greek shipping.

The picture is made even grimmer in Figure 4, which depicts the percentage of lost vessels. The Greek rate is about 2.3%, compared to a world rate of 0.4%, and the next highest rate of around 1% for Panama. That so many vessels should be lost is alarming, and fraud is a natural conclusion to make. This high quantity of lost vessels during the 1970s has led to very high insurance premiums for Greek shipowners, damaging both their profitability, as well as their credibility.

It is not that the Greeks have not been making efforts to improve their record. First, the level of vessel scrapping in the Greek fleet has increased over the last decade. Figure 5 shows this increase. Most of the increase has been in tankers, and can be explained for other reasons. However, scrapping, for whatever reason, is positive. It has the primary effect of removing over-aged vessels from the fleet, and the secondary effect of improving the fleet's safety record. "S and P" (sold and purchase) activity has also been high in the 1970s. This has the effect of

\[\text{An example of this occurred in 1978, when London Cargo underwriters implemented a tough new advisory schedule which lumped Greek-flag hulls over 15 years of age with vessels under open registries on which substantially boosted additional cargo premiums had to be paid.}\]

\[\text{See Naftiliaki, August 1978, International Section.}\]
expunging old tonnage and introducing new tonnage to the fleet, which reduces the average age of the fleet. 4

Second, the Ministry of the Mercantile Marine have become more strict. Monitoring of all Greek vessels is very difficult since vessels rarely come into Greek ports. In fact, safety certificates and load line certificates carried by Greek ships are often not issued by Greek authorities, since vessels are so seldom in Greek ports. 5 To combat this problem, the Greek authorities, through the Harbor Corps in Western Europe, have organized fairly aggressive forays aboard Greek vessels by "flying squads" of inspectors. 6 This tactic was relatively successful in improving safety conditions aboard Greek vessels, but, as is witnessed by the statistics, not successful enough.

Third, the Union of Greek Shipowners has heavily increased its public relations efforts to rebut the charges against the Greek fleet. Anthony Chandris, elected President of the UGS in 1975, came out in defense of the high casualty rate. On the subject he said that: 7

The nature of Greek shipping operations is something to be considered. Tramp vessels, whether they be bulk carriers or tankers, do not usually trade to and from ports on the regular liner routes. They are hired to trade anywhere and everywhere in the

---

4 See "Greek Shipping - 1979", Naftiliaki, p.55.
6 Ibid, p. 57.
7 Ibid, p.13.
This is a specious defense of Greek shipping's high casualty rate. First, precisely because Greek vessels face such "dangerous conditions", they ought to be better equipped to deal with them. Second, it is the choice of the Greek shipowners to undertake such dangerous voyages. If they were to avoid them, as other maritime nations do, they would also avoid the large quantity of casualties (if the high casualty rate is, in fact, accounted for by these voyages, and not other factors). All charter parties designate whether a vessel may travel outside of "safe ports" or not. Greek shipowners tend to prefer travelling outside of "safe ports" (such as voyages into the Persian Gulf) in order that greater profits may be realized. As a side-note, the extra profits made on such trips could be reinvested to improve the safety standards of vessels.

In many areas, it easy to applaud the success of the Greek shipping community. However, in this one area of high casualties, it is not possible to do so. Much more could be done by the Greeks to improve their safety record. Ironically, the savings in terms of lower operating costs that are being made through lax safety measures, might eventually turn out to be what sinks Greek shipping. As the safety record deteriorates, the insurance premiums will increase, pricing the Greeks out of the market; international bankers will become less willing to invest in Greek shipping and,
shippers will shy away from using Greek tonnage. Additionally, environmental protectionists will intensify their lobbying activities, making the outlawing of open registries by UNCTAD more and more a reality.

b) Flags Of Convenience

As can be seen in Table 2, the use of flags of convenience registries increased dramatically in the 1970s, as shipowners around the world attempted to maintain their competitiveness. Whereas in 1970, only 18% of the world fleet was registered under flags of convenience, by 1979, 28% of the world fleet was registered under flags of convenience. Recession and the oil crisis, savagely reducing freight rates, were the prime forces for this wave of deflagging. Considering the negative connotations of the utilization of flag of convenience registries, analyzed in chapter two, this was not a positive trend in shipping in the 1970s. What, however, is positive, is that the trend in Greek shipping was the reverse.

Table 3 shows the major utilizers of flags of convenience. Between 1978 and 1979 all these fleets either maintained the same percentage of foreign-flagged vessels within their fleet, or increased the percentage - with the exception of Greece. The percentage of Greek-owned vessels under foreign flags declined from 20.7% in 1978 to 14.2% in 1979. As can be seen in Figure 6, this was a trend characteristic
### Percentage of World Fleet Registered Under Flags of Convenience, 1970-79.

**TABLE 2**

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>JULY 1, 1979</th>
<th>%</th>
<th>JANUARY 1, 1979</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>65,053,000</td>
<td>30.4</td>
<td>62,376,000</td>
<td>30.7</td>
</tr>
<tr>
<td>HONG KONG</td>
<td>42,420,000</td>
<td>19.8</td>
<td>33,304,000</td>
<td>16.9</td>
</tr>
<tr>
<td>GREECE</td>
<td>30,361,000</td>
<td>14.2</td>
<td>40,606,000</td>
<td>20.7</td>
</tr>
<tr>
<td>JAPAN</td>
<td>22,350,000</td>
<td>10.5</td>
<td>18,105,000</td>
<td>9.2</td>
</tr>
<tr>
<td>W-GERMANY</td>
<td>6,887,000</td>
<td>3.2</td>
<td>5,461,000</td>
<td>2.8</td>
</tr>
<tr>
<td>NORWAY</td>
<td>3,238,000</td>
<td>1.5</td>
<td>2,010,000</td>
<td>1.0</td>
</tr>
<tr>
<td>OTHERS</td>
<td>42,909,000</td>
<td>20.4</td>
<td>34,907,000</td>
<td>17.7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>213,218,000</td>
<td>100</td>
<td>196,829,000</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** CNVCEO, 1979


**TABLE 3**
of the 1970s, with the quantity of foreign-flagged vessels actually declining after 1974. Between 1971 and 1979 the percentage of Greek-owned tonnage under foreign flag decreased from 25% to 14%. Figure 7 shows the distribution by flag of the Greek-owned fleet in 1979.

The reason for the move towards the Greek flag was increased flexibility by the government. Greeks were able to gain many of the advantages of flag of convenience registries under their own flag. This fact sheds some doubt on the positiveness of the move towards the Greek flag—doubt which is reenforced by the poor safety record of the Greeks in the 1970s. For the media and the trading community began to perceive of the Greek flag as a flag of convenience, with all its negative connotations.

The "flag of convenience" image of Greek shipping, along with its poor safety record, did much to tarnish the success of Greek shipping during the 1970s. In order for the Greek fleet to continue its successful and dynamic growth, it must change and leave this image behind it. Unfortunately for the Greek government, this is a Catch-22 situation; for any attempts it makes to alter the image will invariably be met, as has been witnessed in the present crisis, by a flurry of deflagging.

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8 Using incentives such as lower taxes and subsidies on repairs completed in Greek shipyards.
c) National Impact Of Shipping

While the Greek fleet grew from 30 million Gross Registered Tons to 55 million GRT during the 1970s, the increase in the benefits to the Greek economy derived from shipping were not nearly as dramatic. In terms of GNP, shipping accounted for around 4% throughout the period. During 1978 and 1979 tourism accounted for a larger share of GNP than shipping, which was unprecedented. This can be seen in Figure 8. In terms of the balance of payments, shipping increased from 500 million dollars in 1972 to 1500 million dollars in 1979. Inflation was rampant in the 1970s, and accounts for a large proportion of this increase. Tourism, in comparison, went from 400 million dollars to 1700 million dollars in 1979, surpassing shipping inflows in 1978. This can be seen in Figure 9.

The lack of increased income from shipping is especially surprising when one considers the increased usage of the Greek flag during the 1970s. The picture is, however, improved when one considers the increased quantity of repairs made in Greek shipyards during the 1970s. Greek shipyards increased their capacity substantially and were, for a while, even profitable. In 1977 the Niarchos owned Hellenic Shipyard at Skaramanga made profits of over 18 million dollars. The activities of the Greek yards can be seen in Figure 10, which shows the growth of repairs.

9 See Naftiliaki, "Greek Shipping - 1979", p.51
FIGURE 8

Shipping, Tourism, and Emigrant Earnings as a Percentage of Greece's GNP, 1975-81.

FIGURE 9

Share in Balance of Payments of Shipping, Tourism, and Emigrant Remittances, in Million Dollars.

Source: OECD Economic Surveys, Greece.
undertaken in Greece from 1972 to 1976, and Figure 11, which breaks those repairs (1975) down into the various shipyards. In 1978, in the midst of recession, the shipyards ran into trouble. The Hellenic yard made a loss of 6.5 million dollars, and the state-owned Eleusis yard a loss of 15.7 million dollars.

The reaction of the government to these losses was unprecedented. State credits were offered and other incentives for Greek owners who undertook repairs on their vessels in Greek waters. The justification for these actions was that the yards were a necessity for defensive and strategic purposes. The government became avid in pursuance of this policy, and in 1979, nationalized the Niarchos shipyard at Skaramanga.

The involvement of the state in shipping affairs during the 1970s was a positive move forward. Whether this was a positive move in the 1980s, with Papandreou and his PASOK party, remains to be analyzed in a later section.

**TONNAGE OVERCAPACITY**

The single most important issue of the 1970s in world shipping was the overcapacity of tonnage, reportedly at around 40% by 1979, especially in the field of tankers. Figure 12 shows the development of the world fleet between
**FIGURE 10**

**REPAIR GROWTH IN GREECE 1972-76**

**FIGURE 11**

**VESELS REPAIRED IN GREEK SHIPYARDS, 1975**

**TOTAL:** 2,257 VESSELS
24.4 M DWT
1970 and 1979 from 240 million GRT to over 410 million GRT. Figure 13 shows the development by type of vessel. Ore and dry bulk carriers increased capacity from 45 million GRT to 108 million GRT; tankers increased from 85 million GRT to 175 million GRT; other vessel types increased from 95 million GRT to 130 million GRT. In terms of growth (which can be seen in figure 14, indexed to 1970) the ore and bulk carrier vessel type grew the fastest, more than doubling during the period. The capacity of tankers doubled.

The result of this unprecedented growth of the world fleet was two-fold: First it meant a change in the composition of the world fleet. Whereas, in 1970 (see Figure 15) the fleet was predominantly composed of vessels other than tankers and bulk carriers, in 1979, the fleet was composed 75% of tankers and bulk carriers. This meant a decline in the quantity of passenger and specialist vessels, and an increase in capacity for world seaborne trade.

Second, it created the tremendous overcapacity of tonnage mentioned at the outset of this section. The question of overcapacity of tonnage is so central to the present Greek shipping crisis, that it merits a special detailed analysis.

During the 1970s, while tonnage capacity of tankers and ore and bulk carriers more than doubled, world seaborne trade only increased from 2,500 million tons to 3,800 million tons. This can be seen in figure 16, which also shows
BREAKDOWN OF WORLD FLEET IN 1970 AND 1979. GRT

SOURCE: SHIPPING, STATISTICS, 1979
the volume of seaborne trade in crude oil, iron ore, grain, coal, oil products, and other commodities. The reason for the slow growth of seaborne trade was the oil crisis, which set off a recession from 1975 to 1978. The income elasticities of imports tend to be high, so that as recession grips a country, and incomes decline, the demand for imports also declines. The quadrupling of the price of oil by OPEC, reduced the demand for oil. It also increased the usage of oil substitutes within each country's natural resources, which reduced the quantity of world seaborne trade.

The result of this stagnant growth of world seaborne trade and the dynamic growth of the world fleet can be seen in Figure 17 and Figure 18. The precise overcapacity of tonnage is very complex to measure, and any statement of overcapacity is at best a broad estimate. There are numerous reasons for this. First, it is hard to estimate the capacity of each vessel within one year. The vessel might complete one long voyage in a year, or three, or a dozen shorter voyages. Without knowing the optimum capacity of each vessel each year, it is impossible to measure the total capacity. This can be contrasted against the liner conferences. In liner conferences a voyage date is set at regular intervals and a certain quantity of cargo-space is available on each voyage. Thus, the total capacity can be measured. This is not the case in the tramp market. Seaborne trade can be measured in ton-miles (this can be
DEVELOPMENT OF WORLD TANKER FLEET CONTRASTED TO WORLD CRUDE OIL TRADE BY SEA, 1970-1979.

TANKERS - DEADWEIGHT CRUDE OIL - MILLION TONS

INDEX 1970 = 100


TANKERS

CRUDE OIL

SOURCE: SHIPPING STATISTICS, 1979
FIGURE 18

DEVELOPMENT OF WORLD FLEET (EXCLUDING TANKERS) COMPARED TO WORLD SEABORNE TRADE, 1970-77.

FLEET - DEADWEIGHT
TRADE - MILLION TONS

(INDEX 1970 = 100)

WORLD FLEET EXCLUDING TANKERS

SEABORNE TRADE EXCLUDING CRUDE OIL

(From: Shipping Statistics, 1970)
seen in Table 4, with ton-miles contrasted to tons), which helps the calculation of capacity. However, one still does not know, first, the time spent in port and, second, the speed of each vessel. Second, the figures for vessels laid-up cannot be used for measuring overcapacity. The figures state the number of vessels laid-up at any one time, not the duration for which each vessel is laid-up. Owners will often keep their vessels operating, even if it means ballasting from port to port, or lying at anchor in port for months, with the hope of employment, rather than laying-up their vessels.

In light of these difficulties of measurement of capacity, Figure 17 and Figure 18 show the growth of seaborne trade indexed to 1970, against the growth of deadweight capacity, also indexed to 1970. If one assumes that in 1970, capacity and seaborne trade were in equilibrium, then the spread that develops between the two growth rates is the overcapacity of tonnage. In the case of tankers and crude oil, in Figure 17, this is the red shaded area. The effect of OPEC's price rise can clearly be seen, with the quantity of crude oil transported initially rising, and then falling off in 1974, to increase only a small quantity by 1979. The inset histogram in Figure 17, which shows the quantity of tankers laid-up in the Greek fleet from 1970 to 1979, 10 Deadweight capacity is the number of tons of cargo a vessel can carry (i.e., a 24,000 DWT bulk-carrier can carry 24,000 tons of cargo).
## World seaborne trade by major groups of commodities: 1969 - 1979

<table>
<thead>
<tr>
<th>Year</th>
<th>Σύνολο—Total</th>
<th>Αγρινά πετρελαίου</th>
<th>Ορυκτά πετρελαίου</th>
<th>Προϊόντα πετρελαίου</th>
<th>Σιδηρωτικά</th>
<th>Αζαίρ—Coal</th>
<th>Σιδηρά—Grain</th>
<th>Συνολω—Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(T)</td>
<td>(M)</td>
<td>(M)</td>
<td>(M)</td>
<td>(M)</td>
<td>(M)</td>
<td>(M)</td>
<td>(M)</td>
</tr>
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<td>101</td>
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<td></td>
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<td>277</td>
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<tr>
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<td>292</td>
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<td>375</td>
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<td>276</td>
<td>1,306</td>
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<tr>
<td>1979</td>
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<td>1,528</td>
<td>9,014</td>
<td>279</td>
<td>1,045</td>
<td>327</td>
<td>1,399</td>
<td>159</td>
</tr>
</tbody>
</table>

### Source

### Note
- Attention is drawn to the figures for oilseeds which include soybean and saja beans in addition to wheat, barley, oats and rice for entire period.
- 1: In million tons.
- 2: In thousand million tonnes.

### Source
correlates well with the overcapacity argument that is being advocated here. Up until 1974, under 5% of the tanker fleet was laid-up (which is reflected by a small spread between crude oil transported and tanker capacity). After 1974, around 15% of the tanker fleet was laid-up. There are two reasons why there is a decline in the quantity of laid-up tankers in 1978 and 1979. First, the scrapping of tankers was very high during these years. This can be seen in Figure 5. If one was to combine the quantity of laid-up vessels with the quantity of scrapped vessels, the percentage would be very high. Second, during 1978 and 1979, the economy started to improve, thus increasing the demand for crude oil.

Figure 18 shows the spread which develops between seaborne trade, excluding crude oil, and the world fleet, excluding tankers. This spread is far less dramatic than that of the crude oil market. The first reason for this is that there was no bulk or ore commodity crisis to compare with the oil crisis — trade, therefore increased throughout the period (with the exception of 1975). The second reason is that of inadequate data. The deadweight capacity of bulk and ore carriers during the 1970s more than doubled. The capacity of the world fleet, however, increased by a much smaller quantity — and it is this growth that is shown in Figure 18. The world fleet (excluding tankers) includes passenger and specialized vessels, the development of which
was slow during the 1970s. If, therefore, one excludes these vessels, the spread would be far greater, showing a larger overcapacity of tonnage.

The effect of this overcapacity was three-fold. First, the quantity of laid up vessels was increased. This is evident in Figure 19. Part of this huge increase in vessels laid-up was owing to the recession between 1975 and 1978; the rest, however, is due to the overcapacity of tonnage. Figure 20 shows the percentage of the Greek fleet laid-up. Second, a decline in the freight rate. Third, decreased profitability in shipping. These effects of overcapacity are clearly undesirable.

The vital question to be answered, for the sake of world shipping, and, especially, Greek shipping, is whether the overcapacity of tonnage is now a permanent feature of world shipping, or a transitionary one, created by the oil crisis and recession during the 1970s. The question is extremely difficult to answer, and revolves around four points. First, the quantity of world seaborne trade in the future. If trade picks up, then excess capacity will start to be utilized, and there will be no overcapacity in the long-run. Second, the level of scrapping in the future is vital to this issue. The level of scrapping depends on first, the price of scrap metal, and, second, the age of tonnage. If the price of scrap metal can be maintained at

For an analysis of this, see Chapter Three.
FIGURE 19

WORLD TONNAGE LAID-UP FOR LACK-OF EMPLOYMENT, 1970-79, MILLION GRT

FIGURES IN BRACKETS SHOW NUMBER OF VESSELS WHERE AVAILABLE.

SOURCE: SHIPPING STATISTICS, 1977

FIGURE 20

PERCENTAGE OF LAID-UP CREEK FLEET, 1970-79

SOURCE: SHIPPING STATISTICS, 1977
high levels, then scrapping will be high, with owners preferring to scrap older vessels, rather than laying them up and waiting for high freight rates. Third, the level of new constructions is important.

These three points depend on the state of the economy in the short-run, but it is the long-run trends that are important. Clearly, only projections can be made about long-run trends, which complicates conclusions about overcapacity in the long-run. The fourth point, however, is more definitive. Namely, the activities of the financial markets. Banks, during the 1970s, were very loose with their credit, and maintained inconsistent shipping credit policies. 12 This meant that rather than pursuing a policy of replacing scrapped tonnage each year, plus extra tonnage for increased trade, their credit policy was driven by the shipping cycle. In times of prosperity, they invested heavily in shipping, expecting high returns to be made. What they forgot, was that recession was only around the corner. The result of this behavior by banks was the exacerbation of the shipping cycle and the creation of a negative trend in the cycle, creating progressively lower freight rates, and higher quantities of laid-up vessels with each recession and prosperous period. 13 It may also have

led to the permanent overcapacity of tonnage in world shipping. This bank-initiated phenomenon can be seen in Figure 21. Banks pursuance, and adherence to, consistent credit policy will do much to relieve the overcapacity problem facing world shipping.

What conclusions can be drawn from this discussion for Greek shipping? Economists would argue that a perfectly competitive market will clear itself in the long run, i.e., supply will be equal to demand. This implies, that, in the long-run, there will be no overcapacity of tonnage. In the short-run, the phenomenon will be alleviated by the bankruptcy of the most inefficient shipping companies. If this is the case, then the overcapacity of tonnage should not be a problem for Greek shipping, except on the periphery, since the Greeks' heritage is one of competitiveness and efficiency. It is, rather, the less efficient and competitive fleets of the world that will suffer.

**BILATERAL CREWS**

The employment of crew has always been the most complex and problematic issue in Greek shipping. In the post-war period, this was because there was a shortage of Greek crew, and supplementary crews had to be found to fill in the gap. During the 1970s, the crew shortage was intensified, such
NEGATIVELY SLOPED SHIPPING CYCLE, WITH PROGRESSIVELY LOWER FREIGHT RATE AND VESSEL PRICES AT EACH PROSPERITY PERIOD, CREATED BY INCONSISTENT SHIPPING CREDIT POLICY OF BANKS.

SOURCE: KIMBO, 1985
that in 1974, the shortfall was 60,000 seamen. 14 As well as this, the issue of wages had become central. In the post-war period, one of the major reasons for Greece's comparative advantage in shipping was its low crew costs. In the 1970s, the unionized Greek Seamen (the central union was the PNO or the Panhellenic Seamen's Union) demanded higher wages (quite understandable, considering the rising living standards in Greece), undercutting Greece's competitiveness. The response of Greek shipowners to this was the establishment of a bilateral crew system. Greek seamen were paid higher wages, and this was counterbalanced by the payment of lower wages to foreign seamen. For example, a Greek AB (lower-deck crew) on a Greek vessel would be paid $586 per month. A foreign AB would be paid $330 per month. 15 This system enabled the Greeks to remain competitive. This was not, however, the end of the story. First, Greek legislation requires that 75% of a crew on a Greek vessel must be Greek. 16 Second, Article 83 of the Code of Private Maritime Law makes it mandatory that foreigners are paid the same as Greeks. 17 The employment of bilateral crews, therefore, created trouble with the government, with the Greek unions, and, perhaps most importantly, with

15 Naftiliaki, "Greek Shipping - 1979", p.51
international labor and other maritime organizations, such as the International Transport Workers Federation (ITF). Third, Greek shipowners discovered that not all crews are homogeneous, and that the employment of crew goes far deeper than wage differentials. The crew issue, outlined above, is as central to the present crisis as it was in the 1970s and, therefore, requires a detailed analysis.

The reason why the crew issue is so important to shipping might not be immediately obvious. There are two reasons. First, the largest part of all shipowner's operating costs, once a vessel has been purchased, are the wages of the crew. Bunkers are not included in operating costs. Depending on the country in question, crew costs will be between 70% and 40% of total operating costs. For Greece, they are around 40%. This can be seen in Figure 22. If savings can be made in crew costs, then operating costs will clearly be dramatically reduced. This is one of the reasons for the heavy increase in automation on vessels. Whereas in the post-war period a large vessel would require a crew of 40 or 50 seamen, a vessel of any size today will have a crew of between 20 and 30 seamen.

The second reason for the importance of crews to shipping is the responsibility placed in the crew, and, in particular, the captain and officers. Whereas the owner of a factory will see and monitor the operation of his factory from day to day, a shipowner might not see his vessel for
BREAKDOWN OF OPERATING COSTS ACCORDING TO FLAG OF A MEDIUM SIZED BULK CARRIER (1976)

PERCENTAGE OF TOTAL OPERATING COSTS

- Crew Wages
- Repair Costs
- Insurance
- Administrative Costs
- Spare Parts, ch
- Supplies

SOURCE: H.P. Drewry (Shipping Consultant), 1976.
months and months, while it is out at sea. What is more, he is very unlikely to even know the crew. For this reason, Greek shipowners have always argued that, if they could, they would employ Greek crew, it being easier to trust your compatriots, rather than foreigners. An example will help illustrate this point. The African Violet, which was an over-aged vessel, had a crew composed entirely of Korean seamen. During a voyage to Santo Domingo, the vessel sprung two leaks in the hull. It anchored at Kingston, Jamaica, in order to undertake repairs. The holes in the hull, caused by age, were repaired by a diver. The vessel passed an inspection and retained its safety certificates. It was ready for sail. The Korean crew members, however, were not. They were concerned about the age and condition of the vessel, in spite of the fact that it had its safety certificates. They demanded that at its first port of discharge, namely Nola, the vessel be taken into dry dock. The port engineer was pressured. An unfortunate incident then occurred. The chief-mate, while checking one of the holds, fell into it; he died later in hospital. The accident was determined to be entirely the fault of the chief-mate, and no legal action ensued. The incident panicked the entire crew, and they demanded that the African Violet be taken into dry dock in Kingston, where they were still lying at anchor. This demand came in spite of the fact that there

18 From the logs of m/v African Violet, 1978, owned by Universal Glow Shipping Co.
were no facilities for drydocking at Kingston. At this point the owner of the vessel sent out one of his port captains from Piraeus, Greece. On arrival, he reported finding the following situation. First, none of the crew members spoke English; English is the international shipping language, and by law at least the captain and the first officer must speak English. Second, the captain could not handle the crew and was "without personality"; the radio operator and the chief engineer were continually "pushing him around". Third, the crew had no respect for the port engineer, and actually physically struck him when making their demands. Fourth, the deck-officers did not concur with the rest of the crew and "injured" them and then "menaced their lives". In short, the port captain had a mutiny on his hands. He negotiated with them and it was decided that a number of the crew would leave immediately and a skeleton crew would remain on board until Nola. The crew then proceeded to "blackmail" the port captain into agreeing that the company would pay repatriation costs. He was forced to agree (later, repatriation costs were removed from the crew's wages). They also demanded two months pay in advance, according to their contracts. The port captain was able to remind them that the severance had been initiated by them, and not the company. The incident settled.

19 A port captain, usually a retired sea-captain, works in the operations department of a shipping company, which deals with the day-to-day running of vessels.
the port captain returned to Piraeus, where a letter was sent to Korean crew employment offices with warnings of the crew involved. The African Violet proceeded to Nola, without further incident.

The incident narrated above illustrates why Greek owners prefer to employ Greek seamen, rather than encounter difficulties with foreign crews. Circumstances, however, during the post-war period, have dictated the employment of foreign crews. Up until the 1970s, these crews were paid the same wages, and owners tended to adhere to the 25% clause limitation of foreign crews. There were few complications with this system, outside finding crew and overcoming the language barrier and various customs.

In the 1970s, as was stated earlier, this situation changed. There was now a different motivation for hiring foreign crews - namely the lowering of operating costs. The establishment of a bilateral crew system in Greek shipping caused many complications. In the late 1970s, an agreement was signed between shipowners and the Bangladesh's seamen's union making available 2,000 Bangladesh seamen to work on Greek vessels at effectively half the basic Greek wage rate. This agreement was flagrantly against Article 83, discussed above, that there should be no wage differentiation between nationalities.

The government reacted indifferently towards this violation. The unions, on the other hand, and the
international labor organizations, did not. The PNO reacted vehemently, calling for strikes, and making unrealistic demands. They saw that since Article 83 had been violated with such ease, it would be no time before the regulation on foreign crews would be violated, jeopardizing their jobs. The engineers union, under the PNO, were the most vehement. They demanded a 25% pay increase, 100% overtime pay, and other conditions to do with their safety. The PNO then started to openly attack the Union of Greek Shipowners. They criticized Chandris, the President of the union, for allegedly filling his passenger ships with Asians employed "at appallingly low wages and in open defiance of Greek laws". The unions' vehemence backfired on them. Greek shipowners merely started employing more and more foreign crews. This move by Greek shipowners led to confrontations on an international scale. The ITF became extremely aggressive towards Greek vessels. This was, first, because of the employment of cheap labor and, second, because such employment enabled the Greeks to undercut the costs of foreign-flagged vessels. The ITF began boycotting the entry of Greek vessels into a number of ports. This issue will be discussed in greater detail in the next chapter, being more a phenomenon of the 1980s. Maritime nations around the world began appealing to the United Nations and its trade

20 See Naftiliaki, "Greek Shipping - 1979", p.71
21 See Naftiliaki, August, 1979, English Section.
agency, UNCTAD, for protective measures against the Greeks and other discriminatory flags. This lobbying activity started rounds of talks on open registries, liner codes, and even tramp market codes, which will also be discussed in detail in the next chapter.

The crew issue remains central to the present Greek shipping crisis. The problems that existed in the 1970s and before, still remain today, yet in an even more complicated form, since the government has now intervened, as will be seen in the next chapter. How the Greek shipping community deals with the issue has much to do with their continued success in the future.

INTER-RELATIONSHIP WITH GOVERNMENT

Andreas Papandreou's movements towards power were perceived of as a threat to shipping by the Greek shipping community. The Panhellenic Socialist Movement (PASOK), led by Papandreou, doubled its share of the vote in the election of 1977 to displace the shattered Moderate Center Union as chief opposition party with 93 of 300 seats in Greece's parliament. Although Papandreou was not to come to power until 1981, the shipping community already felt threatened in 1977 by Papandreou, and meetings between senior shipowners and Papandreou commenced then.
Papandreou represented a new breed of politicians in Greece. Whereas before, the government had generally not interfered with shipping matters, Papandreou was an interventionist. His party was committed to nationalization of certain sectors of the economy — including shipyards. It was also committed to the revocation of a 1953 Law under one article of which vessels over 1,500 GRT registered under the Greek flag are regarded as imported capital assets — which gave Greek shipowners a tax loophole. The shipping community felt these policy commitments might only be the start of things to come when Papandreou attained power, and that the whole tone of Greek shipping might be changed. A flurry of deflagging ensued. Papandreou, however, reassured the shipping community, which he considered the nation’s “single most productive source of economic wealth”. There would be no drastic policy changes. Papandreou told shipowners representatives that PASOK’s priority aim would be “the seeking out of ways to boost the annual rate of increase” in invisible earnings from shipping, which he carefully noted “had not grown in proportion to the huge growth in our merchant fleet”. He stressed that his party would encourage creation of a more modern fleet of larger average vessels, and of wage structures and other incentives which could be expected to make good the acute shortage of Greek seamen.

23 Ibid, October 1978.
Whatever Papandreou said then, he would come to be taken seriously after his election. For he was not only to play a part in the crisis that was to ensue, but also in the question of the future survival of Greek shipping, as will be seen in the next chapter.

ACCESSION TO EEC

According to the Treaty of Association of Greece and the European Economic Community (the so-called "Athens Agreement"), signed on 9 July 1961, Greece was granted the status of an Associated Member of the EEC as of 1 November 1962. Associate Membership of the Community implied that when Greece was ready to meet all the obligations imposed by the Treaty of Rome, it was to be considered for full membership. Accordingly, the Athens Agreement stipulated that by 1984 Greece must remove all tariffs imposed on goods of EEC origin and harmonize its agricultural policy with the Common Agricultural Policy of the community.

The provisions of the Treaty of Accession were frozen during 1967-74 when, because of the junta dictatorship, Greece could not participate in the various joint parliamentary committees of the community. After the fall of the military government in July 1974, Greece formally submitted
an application for full membership of the EEC. ¹ In January of 1981 Greece signed the Treaty of Accession, and became a full member.

What has Greece's Accession to the EEC meant for Greek shipping? Although it is still too early to judge all the implications of Greece's membership to the EEC, it is clear that membership has effected Greek shipping, although not to the extent that economists and politicians initially envisioned. ² This section will be divided into three-parts: a) EEC and shipping policy; b) Possible benefits to EEC of Greek membership and; c) Effects on Greek shipping.

A) EEC and shipping policy

The Treaty of Rome laid down the specific provisions for the formulation of a common transport policy in Title IV, which spans Articles 74 to 84 of the Treaty. Article 74 states that: "The objectives of this Treaty shall, in matters governed by this Title, be pursued by member states within the framework of a common transport policy". Article 84 specifically excludes, however, both maritime and air transport from the common transport policy: "(1) The provi-

¹ See Panteledis, "Greek Shipping and the Accession of Greece to the EEC", in Marine Policy, January 1979.

sions of the Title shall apply to transport by rail, road, and inland waterways. (2) The council may, acting unani-
mously, decide whether, to what extent, and by what pro-
cedure appropriate provisions may be laid down for sea and
air transport". In short, the EEC had no common shipping
policy at the time of its founding.

What is more, it is only in very recent times that any
move has been made to establish such a policy. The reason
for this is the unanimity clause in the treaty: The EEC
members have been unable to settle on any one policy,
because of different interests held by member countries in
the shipping market. France's merchant fleet, for example,
caters principally for their own requirements. The UK, on
the other hand, is to a large extent a cross-trader compet-
ing in the tramp market. The lack of agreement among the
EEC members was also responsible for the council's inability
to reach a unanimous position regarding the UNCTAD Liner
Code. The council only expressed a desire to reach a deci-
sion at their next session devoted to transport. 4

This divergence of opinion manifested in the EEC over
shipping policy can be seen to be to the advantage of Greek
shipping. Of the two schools of thought regarding shipping
policy, Greece fits into the British and Dutch school.

3 The unanimity clause gives each member country the
power of veto on any decision.
although ideally it would prefer to maintain its independ­
dence. This school of thought, advocated by the Dutch and
British, both of whom are to a large extent employed in
cross-trading, is opposed to the assumption by the EEC's
institution of a more "dirigiste" role in the community's
shipping. They see a United European front as the best
defense against the competition of state trading, flag
discrimination practises, etc, and of course, are opposed to
the cargo-sharing provisions of the UNCTAD Liner Code. As a
result, they are strongly interested in the formulation of a
common EEC shipping policy, geared largely to international
shipping issues.

The alternative school of thought, advocated by member
countries whose fleets are mainly used in the carriage of
their own imports and exports, such as France, are pro­
ponents of a shipping policy which will considerably
increase the involvement of the Community's institutions in
European shipping. These countries regard shipping in the
same light as any other sector of the domestic economy.
This is why they are in favor of the UNCTAD Code of Conduct
for Liner Conferences. In fact, Belgium, France, and
Germany signed the code in April 1974, thus placing them.

28 This is the 40-40-20 cargo sharing scheme. It rules
that, for example, of a country's imports of a certain com­
modity, transported through Liner Conferences, 40% must be
carried by flag vessels of the importer, 40% by flag vessels
of the exporter, and the remaining 20% can be transported by
flag vessels of cross traders.
according to the EEC commission, in breach of their obligations under the Treaty of Rome.

How the issue of a common shipping policy is settled in the EEC is clearly important for Greek shipping. What is certain, however, and, indeed, guaranteed by the unanimity clause, is that it will not seriously impinge on the cause of Greek shipping.

B) Possible benefits to the EEC of Greek shipping.

With Greece's accession to the EEC, the EEC fleet's share in world mercantile shipping tonnage jumped to 28%, because of the addition of the Greek flag fleet, and to 33% if Greek-owned flag of convenience vessels are also taken into account. 29 Greece's membership, thus, makes the EEC the single largest group in world shipping. In contrast, in 1977, the shares of the communist countries of Eastern Europe and Asia and the LDCs, amounted to only 9% and 8%, respectively. The Japanese fleet accounted for around 9% of total world tonnage.

In light of this impressive statistic, Greece's accession strongly enhanced the EECs bargaining power in international organizations concerned with shipping, such as UNCTAD, IMCO, and ILO (International Labor Organization), and in world conferences where shipping matters were discussed.

At the time of accession, it was also hoped that the EEC would become a serious deterrent against attempts made by "third countries" to restrict competition in the world market for maritime transport (rate dumping by "state trading" countries, the development of fleets for nationalistic reasons by LDCs, flag discrimination practices, etc). This, however, is yet to be seen. What is more, it is exactly these tendencies that are causing the severity of the present crisis, and such "deterrence" would be extremely positive.

As a result of Greece's accession to the EEC, the balance of power in the Community's shipping sector tilted in favor of the cross-traders. It thus assured that, when and if an agreement was reached, it would be in favor of the cross-traders.

The addition of the fleet to the EEC benefited the Community in other ways. 34% of world seaborne trade is by the EEC, yet, prior to Greece's accession, the EEC represented only 19.4% of the world fleet. Greece, thus, filled the gap. EEC shipbuilders also benefited from Greece's accession, since the Greek shipowning community is one of the most important sources of demand for new buildings. It was also hoped that the provision of special incentives to EEC shipowners would induce, to a greater extent, Greek owners to order their vessels in Europe. The Greek fleet is

30 Naftiliaki, International Section, August 1978.
also a substantial source of demand for provisions, ship stores, etc. European industry and agriculture may reap significant benefits if, because of closer ties within the EEC, Greek ships increase their purchases of European goods.

In short, the accession of Greece to the EEC brought, and will continue to bring, substantial economic benefits to the community, because of the addition of the huge Greek fleet to the EECs shipping capacity.

C) Effects on Greek shipping.

The crucial question of Greece's accession to the EEC was whether it would hinder the ability of Greek shipowners to offer competitive rates, and, thus, gainful employment in the tramp shipping market. The main factors which may be said to enhance the competitiveness of Greek shipping are as follows: (a) The use of relatively cheap and high-quality crews. (b) The use of cheap capital equipment. (c) The payment of low taxes by operators of Greek flag vessels. (d) The utilization, when necessary, of flags of convenience. (e) Freedom of entry into the bulk trades, where most of the Greek fleet is employed. By an analysis of the effect of Greece's accession on each of these factors of competitiveness, an overall conclusion can be made as to the benefit, or damage, of Greece's accession to the EEC on Greek shipping.
a) Cheap and High-quality Crews

One of the most important comparative advantages enjoyed by Greek shipping stems from the use of relatively low-cost and high-productivity Greek crews. The availability of an adequate supply of Greek seamen has traditionally been considered essential for the maintenance of the competitiveness of Greek shipping. Within the EEC, free-mobility of labor exists. This, it was feared, would threaten the availability of crews, as Greek seamen migrated to other EEC flag vessels. This, however, has not been the case. First, the Community established a seven year transition period before Greek seamen could work on other members vessels. This means there is no potential threat until 1989. Second, even after 1989, it is doubtful if there will be threat. Foreign crews are already employed, and the loss of a few seamen abroad can easily be filled. The Greek government has never really imposed restrictions on the employment of Greek nationals in foreign flag vessels not owned by Greek principles. Employment in such vessels can even be recognized by the Seamen's Pension Fund (NAT) when computing seamen's pension. The seamen involved have only to undergo certain formalities and pay slightly higher social insurance contributions. In spite of this, employment of Greek nationals in foreign flag vessels not owned by

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31 Naftiliaki, Greek Shipping, 1979, p. 13.
32 See BILATERAL CREW section of this chapter.
Greek principals has never been significant. According to some estimates, only about 2,000 Greeks are employed on such vessels. It is even questionable if there are any incentives to work on foreign vessels. The argument that substantial wage differentials exist between Greek and EEC crews neglects the large fringe benefits which have been awarded to the Greeks in order to encourage them to work at sea. These include wages paid in foreign exchange, the privilege of holding external bank accounts, tax exemptions for purchases of real estate (also, more recently, the defense minister, Mr. Averoff, reduced the period of compulsory military service to seamen, as an incentive to go to sea). Moreover, the figures given to support the wage differential argument usually employ basic pay data or the nominal wages stipulated in collective agreements. In reality, the take-home pay of Greek seamen is substantially higher than their nominal wages. It is, according to some estimates, so much higher that the total take-home pay of Greek seamen exceeds that of seamen in some EEC countries, such as the UK. Added to the question of wages and benefits, the language and fraternization have to be taken into account.

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33 See Panteledis, 1979, p. 12.
34 See Naftiliaki, January 1980, p. 39
35 See Panteledis, 1979, p. 12.
On the basis of the above analysis, one can conclude that Greece's accession is not likely to lead to a significant outflow of Greek seamen. It should also be noted that the analysis of wages means that entry into the Common Market will not induce a substantial increase in wages to the level of other EEC crews - since wages are already equitable with other countries. The inflows of crews ought to prove no problem. The restrictions imposed by Greek law (which are violated in any case) on the employment of foreigners in Greek flag vessels, will have to be lifted for EEC nationals. If only inflows develop they will help alleviate the shortage of crew.

b) Cheap Capital Equipment

Accession to the EEC will not effect Greek shipowners' ability to use cheap capital equipment, purchasing second-hand vessels and ordering new buildings where and when they like. As mentioned above, a properly conceived EEC shipbuilding policy may be designed to create cost advantages for Greek owners who wish to order vessels from European shipyards.

c) Taxes

Greek shipowners allegedly pay little or no taxes, thus enjoying substantial cost advantages in comparison with other mercantile nations. This view is not valid. There are considerable revenues from shipping, which exceeded $50
milllion in 1977. The "low taxes" argument also only presents one side of the argument, because it ignores the substantial amounts of government subsidies, grants, accelerated depreciation allowances handed out generously to shipowners in the EEC. If net benefits realized by shipping in the EEC were calculated, it would be seen that the position of the Greeks in the ratings would be relatively low.

Greek flag and open registry Greek-owned vessels pay taxes on the basis of their gross registered tonnage and age. This is a simple method of taxation - much simpler than taxing on the basis of revenue earned, which requires cumbersome and extensive administration apparatus. According to certain views, Greece's accession to the EEC and the eventual harmonization of company taxation in the Community will mean that Greece will have to conform to EEC practises and abandon their system of taxing shipping firms. These views, however, ignore the fact that the EEC may itself adopt the Greek system of taxing shipping. The Seefeld Report, when discussing how the EEC should deal with flags of convenience, actually recommended that:

36 Ibid. p. 13.
37 Government aid - Taxes.
38 See Chapter three.
39 A very comprehensive report on "Sea Transport Problems in the Community", by H. Seefeld, on behalf of the EEC Committee on Regional Policy, Regional Planning and Transport, March 1977.
The Community instrument in this case might consist in Common Tax Concessions for sea transport. Greece has used this method with considerable success since 1972 as part of a campaign to win ships back to the Greek flag.

Greece’s accession to the EEC should, in light of the above analysis, have no impact on the shipowners payment of taxes.

d) Flags of Convenience

In the past, Greece has made extensive use of flags of convenience. When the situation deteriorates at home, Greek shipowners deflag, and register under an open registry. At the time of joining the EEC, there was a trend away from flags of convenience. This was because the market was healthy. However, with the return of recession in the 1980s, as will be seen in the next chapter, there was a trend away from the Greek flag. This flexibility is vital to the survival Greek shipping. Were the EEC to outlaw the use of open registries, it would, in times of recession, prove disastrous. However, once again, the unanimity clause is in favor of the the Greeks, who could veto any such move within the EEC. This is not, however, to say that any threat does not exist from other bodies – such as the United Nations and UNCTAD. If such a move were to start, then Greece will be at better odds to defeat it with the weight of the EEC behind it, than it ever was without it.
Finally, Greece's accession to the EEC will have few consequences for the freedom of entry in the bulk trades. Almost the whole of the Greek merchant fleet is employed in the oil and dry cargo bulk trades. This is a very free and competitive market, and, as such, the EEC will have little influence on its activities. It has been argued that Greece's accession will open up new trade potential for Greece. Greece, however, does the majority of its trade with Europe anyway, and, in terms of shipping, there are presently no restrictions with Europe.

The main conclusion that can be drawn from the analysis above is that the Greek fleet ought to benefit from accession to the EEC. Any developments in world shipping that might have harmful implications for Greek shipping, would have probably occurred anyway, and Greece will be better equipped within the EEC to deal with them. The competitiveness of Greek shipping should not be adversely affected.

* * *

This chapter has analyzed the developments in Greek shipping during the 1970s that are to play a part in the crisis of the 1980s. The next chapter will deal with the crisis itself.
CHAPTER FIVE
THE CRISIS OF THE 1980s
The present crisis of Greek shipping commenced in 1982. For the first time in post-war years, tonnage on the Greek Registry declined - by around 20% between 1981 and 1984. Infinitely worse, the percentage of laid-up vessels was over 30%. This figure reached 33.6% in 1983.¹ Freight rates plummeted. The Greek shipping community, watched by its international bankers, panicked. What was to happen to Greek shipping?

There are four major reasons for the present crisis of Greek shipping: First, world recession, the initiator of the crisis, which, beside a decline in world seaborne trade, led to heavy protectionism and subsidization in a formerly free tramp shipping market. Second, technological innovations, leading to the specialization and containerization of the world fleet. Third, the narrowing of the differential in operating costs between Greece, and flag of convenience nations, and other maritime nations of the world. Third, the conglomeration of previously analyzed characteristics and problems of Greek shipping. These are:

1. Age of fleet - making Greek vessels highly vulnerable to downturns in the market and, thus, the first vessels to be laid-up.

¹ See Tables 1 and 2.
### TABLE 1

Greek merchant fleet: vessels of 100 GRT and over

<table>
<thead>
<tr>
<th>Τέλος περίοδου</th>
<th>Σύνολο Total</th>
<th>Φορτηγά Dry cargo ships</th>
<th>Δεξαμενόπλοια Tankers</th>
<th>Επιβατηγά Passenger</th>
<th>άλλα o. Other</th>
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<tr>
<td></td>
<td>'Αρ. No</td>
<td>x.δ.χ. GRT</td>
<td>'Αρ. No</td>
<td>x.δ.χ. GRT</td>
<td>'Αρ. No</td>
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<tr>
<td>1981</td>
<td>3,896</td>
<td>42,187,940</td>
<td>2,724</td>
<td>25,794,691</td>
<td>541</td>
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<tr>
<td>1982</td>
<td>3,554</td>
<td>38,128,251</td>
<td>2,422</td>
<td>23,848,929</td>
<td>494</td>
</tr>
<tr>
<td>1983</td>
<td>3,263</td>
<td>36,806,216</td>
<td>2,191</td>
<td>25,133,218</td>
<td>416</td>
</tr>
<tr>
<td>1983 : III</td>
<td>3,549</td>
<td>38,737,860</td>
<td>2,386</td>
<td>23,682,097</td>
<td>496</td>
</tr>
<tr>
<td>1984 : I</td>
<td>3,222</td>
<td>36,392,281</td>
<td>2,155</td>
<td>22,945,142</td>
<td>329</td>
</tr>
<tr>
<td>1984 : II</td>
<td>3,168</td>
<td>35,189,448</td>
<td>2,109</td>
<td>22,525,936</td>
<td>320</td>
</tr>
</tbody>
</table>

General remark: Including vessels supplied with provisional registration papers.
1. Others include towage, fishing, salvage vessels etc.

**SOURCE:** SHIPPING STATISTICS 1984

### TABLE 2

Laid-up Greek merchant vessels of 100 GRT and over

<table>
<thead>
<tr>
<th>Τέλος περίοδου End of period</th>
<th>Σύνολο Total</th>
<th>Φορτηγά Dry cargo ships</th>
<th>Δεξαμενόπλοια Tankers</th>
<th>Επιβατηγά Passenger</th>
<th>άλλα o. Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'Αρ. No</td>
<td>x.δ.χ. GRT</td>
<td>'Αρ. No</td>
<td>x.δ.χ. GRT</td>
<td>'Αρ. No</td>
</tr>
<tr>
<td>1984</td>
<td>215</td>
<td>4,681,872</td>
<td>91</td>
<td>654,256</td>
<td>67</td>
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<tr>
<td>1983</td>
<td>835</td>
<td>11,951,885</td>
<td>613</td>
<td>6,151,435</td>
<td>122</td>
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<tr>
<td>1983 : II</td>
<td>818</td>
<td>12,394,020</td>
<td>611</td>
<td>6,183,812</td>
<td>117</td>
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<td>1983 : III</td>
<td>822</td>
<td>13,015,523</td>
<td>605</td>
<td>6,425,604</td>
<td>133</td>
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<tr>
<td>1984 : I</td>
<td>612</td>
<td>8,896,713</td>
<td>446</td>
<td>6,685,930</td>
<td>85</td>
</tr>
<tr>
<td>1984 : II</td>
<td>566</td>
<td>8,392,578</td>
<td>419</td>
<td>4,996,385</td>
<td>84</td>
</tr>
</tbody>
</table>

See footnote 1, table 5a.

**SOURCE:** SHIPPING STATISTICS 1984
(2) High casualty rate - leading to increased insurance premiums, affecting the competitiveness of the Greek fleet.

(3) Crew shortage - leading to wage pressures in markets where freight rates are declining and hostility, because of the employment of bilateral crews, from international institutions.

(4) Insecurity of Greek shipowners created by the accession to the EEC in 1981.

(5) Growth of government intervention, with the election of PASOK and Andreas Papandreou to power.

(6) Utilization of flags of convenience - leading to a fluctuation of tonnage on the Greek Registry in times of prosperity and recession.

(7) Operation of the Greek fleet in the tramp market, which is highly sensitive to the world economic climate.

(8) High mortgaging and debt of Greek shipowners, exacerbating any downturn in the shipping market.

(9) Predominance of small shipowners, over-dramatizing any downturn in the shipping market, with large quantities of bankruptcies.

In this chapter, each of these major reasons for the present crisis will be analyzed in detail. The key to the success of the Greek shipping over the centuries has been
its comparative advantage over the other maritime nations, enabling it to maintain relatively low operating costs in an extremely competitive market. The characteristics of Greek shipping discussed in this thesis have created this comparative advantage. In the post-war period, a number of these characteristics (outlined above), especially during the 1970s, have had negative implications for Greek shipping and its competitiveness. The differential between Greek vessel operating costs and other maritime nations has decreased. In the past, Greece has had an escape valve, namely the option of deflagging and re-registering under a flag of convenience, thus lowering operating costs, through advantages reaped with the utilization of flags of convenience. However, in the present crisis, this escape valve is no longer effective, for the crisis is double-edged.

It has not only been created by an increase in operating costs of Greek shipowners, but also by protectionism and a decrease in the operating costs of Greece's competitors, through subsidization and increased efficiency among non-flag of convenience operators.

It is this latter point that is making the present crisis faced by Greek shipping so harsh, and the survival and continued dynamic growth of Greek shipping in the future so doubtful. It is one thing to overcome internal problems, as Greece has done, with much success, time and time again, but another to overcome a world shipping community hostile
to one's cause.

WORLD RECESSION

World recession at the beginning of the 1980s led to a multiplicity of problems in the world shipping market. The demand for imports declined, decreasing world seaborne trade. The money supplies of developed countries were tightened, leading to high and volatile interest rates. The terms of trade moved against LDCs, creating balance of payments and exchange rate problems for LDCs. The international banking system was strained as LDCs failed to repay loans and IMF-instigated rescheduling began. The combined impact of these recessionary effects was the evolution of a new shipping environment - one in which the free trade foundations on which world shipping had been built were threatened.

During 1979 world seaborne trade in dry cargo increased by 8%. In 1982, world seaborne trade declined by 5%. This can be seen in Figure 1. Figure 2 shows the decline in growth of world exports, which led to the change in world seaborne trade. In Figure 1, the effect of this dramatic decrease in world seaborne trade can also be seen, with freight rates falling heavily, and the quantity of laid-up world tonnage increasing sharply. Table 3 compares various freight rates in 1973 and 1983. Table 3(a) shows that the
Total OECD industrial output in percentage quarterly change related to percentage yearly change of world seaborne trade in dry cargo.

Source: OECD, Fearmleys.
Percentage yearly change in volume of world exports 1970-1981

Source: CATT International Trade 1980/81
UN Monthly Bulletin of Statistics (1981 figures)
African Economic Associates (1982 world trade estimate)
NIESR - National Institute for Economic & Social Research (1982 manufactures estimate)

* Including fuels and non-ferrous metals

Source: WGI
TABLE 3

TABLE 3(a)
REPRESENTATIVE ONE-YEAR TIMECHARTER RATES FOR HANDY-SIZED BULK CARRIERS 1973 AND 1983 (US $/DWT/Month)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>MONTH</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>1973</td>
<td></td>
<td>4.35</td>
<td>4.65</td>
<td>4.85</td>
<td>5.20</td>
<td>5.30</td>
<td>6.50</td>
<td>6.60</td>
<td>6.95</td>
<td>7.00</td>
<td>8.20</td>
<td>7.60</td>
<td>7.10</td>
</tr>
<tr>
<td>1983</td>
<td></td>
<td>3.75</td>
<td>3.80</td>
<td>4.10</td>
<td>4.50</td>
<td>4.75</td>
<td>4.65</td>
<td>4.60</td>
<td>4.75</td>
<td>4.60</td>
<td>4.75</td>
<td>4.75</td>
<td>4.75</td>
</tr>
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</table>

TABLE 3(b)
REPRESENTATIVE ONE-YEAR TIMECHARTER RATES FOR PANAMAX BULK CARRIERS 1973 AND 1983 (US $/DWT/Month)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>MONTH</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>1973</td>
<td></td>
<td>3.35</td>
<td>3.50</td>
<td>3.90</td>
<td>4.15</td>
<td>4.30</td>
<td>4.80</td>
<td>5.10</td>
<td>5.35</td>
<td>5.50</td>
<td>6.00</td>
<td>6.05</td>
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<tr>
<td>1983</td>
<td></td>
<td>1.80</td>
<td>2.00</td>
<td>2.10</td>
<td>2.20</td>
<td>2.30</td>
<td>2.25</td>
<td>2.20</td>
<td>2.35</td>
<td>2.50</td>
<td>2.40</td>
<td>2.50</td>
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</table>

TABLE 3(c)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>MONTH</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td></td>
<td>11.75</td>
<td>11.50</td>
<td>13.25</td>
<td>15.00</td>
<td>17.45</td>
<td>18.25</td>
<td>16.40</td>
<td>19.50</td>
<td>20.50</td>
<td>25.75</td>
<td>23.55</td>
<td>29.75</td>
</tr>
<tr>
<td>1983</td>
<td></td>
<td>18.00</td>
<td>18.65</td>
<td>20.00</td>
<td>21.45</td>
<td>21.00</td>
<td>18.75</td>
<td>17.10</td>
<td>17.15</td>
<td>16.65</td>
<td>18.50</td>
<td>19.00</td>
<td>19.15</td>
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</table>

TABLE 3(d)
SINGLE VOYAGE RATES : HAMPTON ROADS-JAPAN, 50-60,000 DWCT COAL FIO (Monthly Averages - US $/DWCT)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>MONTH</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
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<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td></td>
<td>7.60</td>
<td>8.50</td>
<td>9.50</td>
<td>10.00</td>
<td>10.00</td>
<td>12.10</td>
<td>13.00</td>
<td>14.85</td>
<td>17.25</td>
<td>17.65</td>
<td>20.40</td>
<td>24.35</td>
</tr>
</tbody>
</table>

SOURCE: DREWRY, 1984
one-year time charter rates for handy-sized (35,000 DWT-50,000 DWT) bulk carriers was higher in 1973 than in 1983. Table 3(b) demonstrates the same point, except with panamax bulk carriers. These figures are not discounted for inflation and their implication for shipping are, quite clearly, catastrophic—especially when one considers that the price of oil during the period more than quadrupled. Table 3(c) shows the single voyage freight rates in 1973 and 1983. Although at the beginning of 1983 freight rates were higher than they had been in 1973, by the end of the year they were lower.

The recession also led to balance of payment, exchange rate, and debt problems for many countries, especially LDCs. Unfortunately, the length of this thesis dictates that there is no space for an analysis of the development of these problems. They existed, however, and were severe; for example, Greece’s current account deficit doubled between 1978 and 1982 (see Table 4). Greece’s outstanding external debt more than doubled between 1977 and 1982—increasing from 15% of GDP in 1977 to 22% in 1982 (see Table 5). The Greek Drachma depreciated 28% between 1981 and 1983. The current account deficit of non-oil developing countries increased from 11.6 billion U.S. dollars in 1973 to 97 billion U.S. dollars in 1982. The long term borrowing of

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3 Source, IMF, World Economic Outlook, p.112
### TABLE 4

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Exports (f.)</td>
<td>2.228</td>
<td>2.326</td>
<td>2.999</td>
<td>2.932</td>
<td>3.093</td>
<td>4.181</td>
<td>4.771</td>
<td>4.411</td>
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<td>Trade balance (f.)</td>
<td>-3.333</td>
<td>-3.009</td>
<td>-4.422</td>
<td>-4.847</td>
<td>-5.858</td>
<td>-6.628</td>
<td>-6.697</td>
<td>-5.927</td>
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<td>Services and transfers, net</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credits</td>
<td>2.101</td>
<td>2.223</td>
<td>3.284</td>
<td>4.296</td>
<td>4.593</td>
<td>4.236</td>
<td>4.022</td>
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<tr>
<td>Tourism</td>
<td>1.186</td>
<td>1.300</td>
<td>1.422</td>
<td>1.661</td>
<td>1.559</td>
<td>1.482</td>
<td>1.098</td>
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<tr>
<td>Migrants' remittances</td>
<td>918</td>
<td>958</td>
<td>964</td>
<td>1168</td>
<td>1168</td>
<td>1168</td>
<td>1168</td>
<td>1168</td>
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<tr>
<td>Other services</td>
<td>383</td>
<td>425</td>
<td>484</td>
<td>1168</td>
<td>1168</td>
<td>1168</td>
<td>1168</td>
<td>1168</td>
</tr>
<tr>
<td>Receipts in convertible deposits</td>
<td>492</td>
<td>166</td>
<td>630</td>
<td>919</td>
<td>1134</td>
<td>1257</td>
<td>1566</td>
<td>1964</td>
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<tr>
<td>Debits</td>
<td>155</td>
<td>202</td>
<td>295</td>
<td>295</td>
<td>295</td>
<td>295</td>
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<tr>
<td>Current balance</td>
<td>787</td>
<td>877</td>
<td>1020</td>
<td>1108</td>
<td>1112</td>
<td>1112</td>
<td></td>
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<td>Private long-term capital</td>
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<td></td>
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<td></td>
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<td>of which: Entrepreneurial</td>
<td>540</td>
<td>614</td>
<td>706</td>
<td>1102</td>
<td>1108</td>
<td>1108</td>
<td>1108</td>
<td>1108</td>
</tr>
<tr>
<td>Real estate</td>
<td>176</td>
<td>233</td>
<td>283</td>
<td>359</td>
<td>444</td>
<td>317</td>
<td>308</td>
<td></td>
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<tr>
<td>Suppliers' credits 1</td>
<td>295</td>
<td>363</td>
<td>410</td>
<td>512</td>
<td>690</td>
<td>408</td>
<td></td>
<td></td>
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<td>Public entities, long-term</td>
<td>-4</td>
<td>-19</td>
<td>-63</td>
<td>-152</td>
<td>-260</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Official, long-term</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>Basic balance</td>
<td>-119</td>
<td>-197</td>
<td>-139</td>
<td>-712</td>
<td>-942</td>
<td>-1.263</td>
<td>-1.001</td>
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<tr>
<td>Short-term suppliers' credits 2</td>
<td>-6</td>
<td>-46</td>
<td>-71</td>
<td>-186</td>
<td>-262</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Errors and omissions</td>
<td>-203</td>
<td>-52</td>
<td>-100</td>
<td>495</td>
<td>364</td>
<td>50</td>
<td></td>
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</tr>
<tr>
<td>Banks and financial institutions</td>
<td>441</td>
<td>477</td>
<td>490</td>
<td>148</td>
<td>150</td>
<td>136</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>of which: Deposits in foreign exchange</td>
<td>724</td>
<td>726</td>
<td>769</td>
<td>117</td>
<td>85</td>
<td>246</td>
<td>95</td>
<td></td>
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<tr>
<td>Balance on official settlements</td>
<td>-134</td>
<td>24</td>
<td>137</td>
<td>27</td>
<td>-480</td>
<td>-531</td>
<td>-982</td>
<td></td>
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<tr>
<td>Use of IMF credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central bank borrowing</td>
<td>67</td>
<td>-42</td>
<td>-33</td>
<td>-109</td>
<td>-74</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in clearing and clearing banks</td>
<td>-18</td>
<td>194</td>
<td>125</td>
<td>128</td>
<td>575</td>
<td>375</td>
<td>835</td>
<td></td>
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<tr>
<td>Use of NDRs</td>
<td>53</td>
<td>-13</td>
<td>72</td>
<td>57</td>
<td>13</td>
<td>-98</td>
<td>-18</td>
<td></td>
</tr>
<tr>
<td>Change in official reserves (increase in assets)</td>
<td>82</td>
<td>-132</td>
<td>-268</td>
<td>-57</td>
<td>6</td>
<td>338</td>
<td>167</td>
<td></td>
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</tbody>
</table>

1. On a settlements basis
2. Provisions of banks
3. Private and public

Source: OECD Survey

### TABLE 5

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tr>
<td>Medium and long-term</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Public 3</td>
<td>3,106.6</td>
<td>3,345.1</td>
<td>4,142.3</td>
<td>5,176.4</td>
<td>6,441.7</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central government</td>
<td>2,423.5</td>
<td>2,930.6</td>
<td>3,098.6</td>
<td>4,204.1</td>
<td>5,153.0</td>
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<td>Public entities</td>
<td>740.9</td>
<td>336.5</td>
<td>339.0</td>
<td>337.4</td>
<td>421.3</td>
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<tr>
<td>Central bank</td>
<td>815.6</td>
<td>991.4</td>
<td>1,014.1</td>
<td>1,341.5</td>
<td>1,848.9</td>
</tr>
<tr>
<td>Total outstanding debt (per cent of GDP)</td>
<td>(15.2)</td>
<td>(14.2)</td>
<td>(12.7)</td>
<td>(16.0)</td>
<td>(20.5)</td>
</tr>
</tbody>
</table>

Memorandum items:

- Interest payments (per cent of current external receipts) | (3.0) | (3.2) | (4.4) | (4.3) | (7.4) |

Source: OECD Survey
non-oil developing countries increased from 11.7 billion U.S. dollars in 1973 to 59.4 billion U.S. dollars in 1982 with the increased debt coming predominantly from private sources.

The reason that these recessionary effects were to have serious implications for world shipping was that countries realized that shipping could be used to alleviate many of the problems created by recession. First, all shipping transactions are carried out in U.S. dollars. By building up home fleets, therefore, foreign exchange outflows could be saved by the employment of one's country's fleet; even if dollars were used in payment, they would still remain in the system and not be counted as outflows. Foreign exchange inflow could also be earned, by the employment of the vessels in the tramp market. The development, or increased use, of a home fleet, therefore, could strengthen the balance of payments position. It would also act as a new source of revenue which could be used in the repayment of debt.

Second, LDCs realized that they were a major participant in international trade, yet were being denied a large proportion of the profits being made in international trade — namely, in its transportation. Table 6 shows the percentage of total world cargo to be loaded and unloaded in LDCs.

4 Source, IMF, World Economic Outlook, p. 114
This shows that over 60% of exports carried by sea originate from LDCs. 19% of imports are from LDCs. On the export side, the LDCs, because of their small share of the world fleet, lose the benefits that could be gained from the transportation of their own exports. On the import side, the LDCs have to pay for transportation of goods in dollars, weakening their exchange position and balance of payments position, both of which could be avoided with a home fleet. The actual share of LDCs in world tonnage can be seen in Table 7. The argument presented here is consolidated when one considers the geographical location of most LDCs, being extremely long distances from most trading partners, thus incurring high transportation costs. Assuming that the value of import-export trade of developing countries is around $300 billion, the freight costs for the transport of their trade could be reasonably estimated at around the
level of $30 billion. This can be contrasted with the gross income of world shipping at $100 billion.

TABLE 7

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL TONNAGE</th>
<th>TANKERS</th>
<th>BULK CARRIERS</th>
<th>GRAIN CARRIERS</th>
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<tbody>
<tr>
<td>1965</td>
<td>7.4%</td>
<td>4.0%</td>
<td>3.8%</td>
<td>9.2%</td>
</tr>
<tr>
<td>1970</td>
<td>7.0%</td>
<td>4.7%</td>
<td>5.2%</td>
<td>13.1%</td>
</tr>
<tr>
<td>1976</td>
<td>7.5%</td>
<td>5.7%</td>
<td>5.5%</td>
<td>14.8%</td>
</tr>
<tr>
<td>1977</td>
<td>8.6%</td>
<td>7.0%</td>
<td>6.2%</td>
<td>15.8%</td>
</tr>
</tbody>
</table>

SOURCE: BREMEN INSTITUTE

LDCS SHARE IN WORLD TONNAGE

Third, LDCs saw other advantages that could be realized with the development of a fleet. The development of a shipping sector can lead to the diversification of other sectors of the economy, such as shipbuilding and repairs, finance and banking, maritime insurance, supplies and equipment, and telecommunications. A shipping sector is also in the political and national security interests of LDCs, giving them reduced dependence on developed nations. Although shipping is largely capital intensive, it will also lead to increased employment.

5 Bremen Institute estimate, 1977, in "Shipping and Developing Countries", published by Bremen Institute, W. Germany, 1977.
6 1972 figure, Bremen Institute.
With these logical reasons for the development of merchant fleets, LDCs started pressuring international organizations, through the mouthpiece of the Group of 77, for state intervention and regulation of the tramp shipping market. Developed countries, such as the U.S., and Comecon countries, were also aware of its potential, and began to undermine the perfectly competitive functioning of the market, in order that they could compete in it. These actions taken by LDCs and other maritime nations led to the following four developments in world shipping: A) Talk of regulation of the tramp shipping market, although no specific actions have been taken. B) Protectionism in the market. C) Heavy subsidization in both the purchasing and operating of tramp vessels. D) The growth of new competition for the established maritime nations. The continued development of these four factors is of vital consequence to the survival of Greek shipping, and they, therefore, require detailed analysis.

A) Regulation of the Tramp Market

UNCTAD, the ITF, the ILO, and IMCO have all been involved in talks on the regulation of the tramp shipping market. UNCTAD's 40-40-20 Code on Liner Conferences now regulates the liner conferences. There is talk of extending the Code to the tramp market. The reason that this proposal has not gone beyond the conference table is that it is vehe-
mently opposed within the shipping community and it would be impractical to enforce, if not impossible. The supporters of the Code are the LDCs and the Group of 77 and other small maritime nations involved solely in the transportation of their own imports and exports, such as France. Those in opposition to the Code are cross-traders, namely all flag of convenience nations, Greece, the U.K, and others. Since they constitute around 90% of the world fleet, there is little likelihood of ratification of the Code. Liner conferences are very rigid; in each conference, a certain number of vessels of different nationalities operate. Therefore, allocation of cargoes to flags is simple. In the tramp market, this is not the case. First, the volume of trade is so immense, that it would be hard to monitor. Second, chartering of vessels is carried out very independently, and often secretly, complicating the administration of such a code. Third, and most importantly, in today's unregulated and highly competitive market, the lowest cost and most efficient vessels are employed to transport cargoes. With the Code, this would no longer be the case. Transportation costs would increase, rather than decrease, as they have been doing. The market would also become characterized by inefficiency rather than efficiency. For all these reasons, UNCTAD's 40-40-20 ruling is very unlikely to be extended to the tramp market and should not be seen as a threat.
A second round of UNCTAD discussions is underway in Geneva on the question of a registration of ships convention. These discussions are a poorly concealed attempt to phase out open registries (i.e., flags of convenience). The proposed convention relates to such issues as manning, management of shipping companies and equity participation. The UNCTAD secretariat and their supporters among the Group of 77 have conceded that their proposals are not intended to improve maritime safety. Rather they are "neither reasonable nor honorable" and, in fact, "in the eagerness to attack open registries, even registries such as the British and Greek would be partially outlawed". Success in phasing out the open registries would be extremely harmful for the free world in general, and the West in particular. The results would be two-fold: First, to reduce competition substantially and, thus, increase transportation costs, restricting trade. Second, to reduce substantially Western tonnage at the expense of a vast increase in Communist tonnage. Furthermore, it must be noted that phasing out open registries would have only a marginal and insignificant effect on the ability of LDCs to increase the size of their fleets.

A shipping company, to be viable, requires expertise, capital, and skilled manpower. Expertise and capital are

abundantly available in the West - skilled manpower being somewhat less available. Flags of convenience have permitted Western companies with capital and shipping expertise to continue as viable and efficient ship operators by utilizing skilled crews from other nations in which living standards are low. The strength and competitiveness of the shipping world is, consolidated by the flag of convenience, benefitting the consumer, while at the same time maintaining Western control over world tonnage. Furthermore, these Western companies are sound, well-respected and efficiently operated, and thus enjoy the confidence of banks, financial institutions and the capital markets. Therefore, the continued presence of these companies in the shipping market insures the influx of capital into shipping, capital that might otherwise not be available to the shipping industry. This continued availability of capital preserves competition and makes it possible for the industry to continue to meet fully the requirements of world trade at economical costs, with maximum flexibility.

LDCs, like all others, cannot build viable shipping companies on the abundant availability of cargo alone. They, too, need expertise, capital and manpower. These prerequisites do not exist in LDCs. The fleets of LDCs would, thus, be less sound, less efficient and less well run. On the other hand, there is every reason to believe that the expertise, capital, and manpower does exist in the
Communist block, and the phasing out of open registries would thus be replaced by Eastern tonnage, and not LDCs.

No benefits whatsoever would be gained by the phasing out of open registries, and such an event is extremely unlikely. Rather, the interests of the West and of world trade would be better served by applying some of the principles of flag of convenience operations to the West's national flag fleets, rendering these national fleets more efficient.

The ITF has for some time attacked free trade in the shipping industry. 8 The International Transport Workers' Federation was established in 1896. 9 Membership currently consists of some 387 trade unions in 84 countries, representing approximately five million transport workers. Membership is divided into the following eight industrial sections: Railway men, Road Transport workers, Inland navigation, Dockers, Seafarers, Fishermen, Civil Aviators, and Travel Bureaux. It is a very strong international organization, and its avowed aim of securing the ultimate phasing out of flags of convenience vessels, by means of a campaign of boycott and other industrial action, has been taken seriously.

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8 See, for example, section on bilateral crews is Chapter 4.

The large European unions, members of the ITF, have substantially more voting power in the ITF than the unions from LDCs. The Executive Board which directs the affairs of the ITF between Congress meetings every three years, and the special Seafarers' Department and Fair Practices Committee, which are largely responsible for the anti-free flag campaign, comprises members who are predominantly from advanced maritime nations, with relatively little representation from LDCs. It is not surprising, therefore, for the ITF to wish to phase out the flags of convenience vessels, because of the belief that this will protect seafarers' jobs in the more developed countries and in Northern Europe in particular. Their ignorance, however, is in that the Northern European seamen would not be the beneficiaries of such an action, but the Communist fleets would take up the slack - the same Communist fleets that are invariably free from ITF interference and boycotts despite the deplorable wages paid to their crews. Thus, in trying to defend their own, the ITF have only managed to hurt their own.

The activity of the ITF has distorted economic patterns to the disadvantage of those upon whom the ITF depends. The reluctance of open registry tonnage to repair in the United Kingdom is one example of this. The current ITF campaign against Norway's attempts to make its fleet more competitive, by reducing Manning levels, is another.
The Fair Practises Committee of the ITF drew up in 1972 the so-called ITF Collective Agreement, which is based on the average wages of Northern European seamen. Any flag of convenience vessels not applying the ITF Collective Agreement and not being equipped with an ITF blue card are subject to boycott. The reason given by the ITF is the following: The ITF maintain that since flag of convenience vessels employ U.S. and European capital, wages paid must be at European levels, though, interestingly enough, not at U.S. levels. This argument is totally specious and inconsistent. The International Free Trade Movement, for example, has never advocated that multinationals owned by American or Europeans, employing local workers in LDCs, must pay American or European wages. Such a suggestion, were it ever to be made, would be laughed out of court as illogical and, in practise, could only have negative result of shifting the development of LDCs.

The ITF, in a vain attempt to create a handful of more jobs for northern European seamen, is perpetrating a great injustice on the seamen of the LDCs. Unemployment and poverty are a great problem in many LDCs. To the extent that the ITF boycott campaign is successful and that seamen from LDCs are displaced, great hardship occurs. It is particularly unfair that the ITF should attack so-called "crews of convenience" even though such crews have been organized, trained and employed on conditions and wages negotiated by
their bona fide national trade unions. To illustrate the magnitude of the potential injustice, it should be noted that between 150,000 and 200,000 seamen from LDCs are currently employed on the flag of convenience vessels. 10

The ITF boycott campaign and Collective Agreement create yet another problem for LDCs. Payments of European wages to seamen from LDCs creates a two-tier pay system in these countries with obvious adverse repercussions on their economies. Furthermore, the paying of European wages to these seamen has the effect of forcing up the wages paid on LDCs national flag fleets, thus reducing their competitiveness.

It can be seen that the ITF's actions are detrimental to the interests of the LDCs and developed countries. Furthermore, to the extent that these actions affect free trade through their attack on flag of convenience vessels (which, as discussed earlier, includes Greek tonnage), world trade as a whole is harmed and the world economy prejudiced. And, what is worse, the benefits which the ITF seek are illusory. The ITF boycott campaign is doomed to eventual failure and it must be hoped that failure arrives before substantial unnecessary mischief, hardship, and upheaval is perpetrated.

10 This is not forgetting an additional 100,000 seamen from LDCs serving on national flag vessels of developed countries (SEATRADE).
The ILO (International Labor Organization) and IMCO have been involved in world shipping for many decades. ILO has a specific interest in the training, conditions and pay of seafarers. It was established in 1919 by the League of Nations and taken over in 1946 by UNO. It maintains a minimum wage for seafarers, which it reviews from time to time. During the 1980s, contrasted to the vehemence of the ITF, it has been dormant. IMCO is mainly concerned with safety and anti-pollution policies in shipping. Prior to accession to the EEC, Greek shipowners did not adhere stringently to IMCO regulations. With Greece's accession, shipowners have been forced to be more observant, which will mean, on the one hand, that Greece's safety record might improve in the future and, on the other, that operating costs might increase a little with enhanced supervision of vessels.

B) Protectionism

World recession has led to protectionism in the formerly free and highly competitive shipping market. The United States is an example of a maritime nation adopting protectionist measures. The Jones Act restricts internal trade to U.S. flag vessels. While the U.S. debates with GATT the issue of government purchasing contracts being open to all comers, U.S. legislation ensures that 50% of the carriage of strategic petroleum and 50% of military and other
government cargoes are transported on U.S. flag vessels. The oil from Alaska issue, another form of protectionism, adopted after lobbying in Congress by US shipping companies, has also received much attention in the press recently. Proposal HR (6979) in Congress would reserve 5%, gradually rising to 20%, of bulk cargoes in U.S. trade to be carried by U.S. flag vessels. Even more serious, are the five year agreement with the Soviet Union and the three year agreement with China. These provide that each country should reserve for its own flag one-third of import and export cargoes. 

These protectionist moves have three implications for world shipping. First, they increase the cost of transportation for consumers, with the use of less efficient and higher cost tonnage. Second, they decrease the quantities of cargoes available for cross traders, such as Greece. Third, protectionism leads to reciprocity - namely, an eye for an eye, a tooth for a tooth. If one nation protects its fleet from another countries fleet, the discriminated country, in turn, will protect its fleet.

If, following the above analysis, these protectionist measures are maintained, world shipping and "free trade" will suffer greatly. More importantly, Greek shipping, involved virtually entirely in cross trading, will endure extreme losses. Historically, protectionist measures have

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proved durable (as is witnessed by the Smoot-Hawley tariffs that still exist from the 1930s). Proponents of protection have been adamant in establishing protectionist legislation, yet less adamant in its removal. This does not bode well for the world or Greek shipping. However, with the continuation of the shipping cycle, and the inevitable "boom", and the influence of GATT and other free trade supporters (not excluding the Greeks) there is a glimmer of hope that protectionist measures will be relaxed.

C) Subsidization

In an article titled the "Subsidy Syndrome", in Jane's Merchant Shipping Review, 1984, A.J. Ambrose questions the future for free trade shipping and for non-subsidized operators, such as the Greeks, in light of heavy subsidization. As can be seen in Table 8, no subsidies at all exist for Greek shipping (that is, with the exception of crew benefits, which are provided by other maritime nations anyway), whereas, all other maritime nations of the EEC enjoy at least some level of subsidization. The highest level of subsidization, however, is not within the EEC, but rather to the east of it - in the Soviet block. The Soviets have realized that shipping is an excellent method of earning foreign exchange. Costs are all in rubles, yet, by trading in the tramp market, U.S. dollars can be earned. The Soviets have, thus, heavily subsidized their fleet so that
### TABLE 8
SUMMARY OF SUBSIDIES TO SHIPOWNERS IN THE E.E.C.

<table>
<thead>
<tr>
<th>Category</th>
<th>Belgium</th>
<th>Denmark</th>
<th>France</th>
<th>Germany</th>
<th>Greece</th>
<th>Italy</th>
<th>Netherlands</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tax Concessions Declining Rates Method</td>
<td>Accelerated Depreciation Allowances</td>
<td>At the Choice of Shipowner</td>
<td>Reducing Balance Method</td>
<td>Combination of Reducing Balance and Straight Line Methods</td>
<td>NO SUBSIDIES</td>
<td>Combination of Reducing Balance and Straight Line Methods</td>
<td>Ruining</td>
<td>Free Depreciation</td>
</tr>
<tr>
<td>(a) Accelerated Depreciation</td>
<td>First Year 20% in 8 Year</td>
<td>30% in 8 Year</td>
<td>31 2/3% p.a.</td>
<td>8 Year</td>
<td>40% in First Year 12-14</td>
<td>40% in First Year 10 Years</td>
<td>(100%) in First Year</td>
<td>(100%)</td>
</tr>
<tr>
<td>(b) Back</td>
<td>8 Year Useful Life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(q) Carrying Losses</th>
<th>(a) Forward 5 years</th>
<th>5 years</th>
<th>5 years</th>
<th>5 years</th>
<th>5 years</th>
<th>8 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Back</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Indefinitely</td>
</tr>
</tbody>
</table>

| (c) Tax Free Reserves | 25% of Annual Profits Reinvested | Capital Gains Reinvested | Capital Gains Reinvested | Capital Gains Reinvested | — | — |
|----------------------|----------------------------------|--------------------------|--------------------------|--------------------------|——|——|

| (d) Reduction of Local Taxes | — | By Half | — | — | — | — |

| 2. Direct Cash Transfers | Against Operating Costs, Losses of Nationalised Companies | Against Cost of Debt | Against Losses of Nationalised Companies | — | — | — |
|------------------------|---------------------------------------------------------|----------------------|----------------------------------------|——|——|——|
| (a) Operating Subsidies Costs | — | — | — | — | — | — |

| (b) Investment Grants | — | — | — | — | — | — |
|----------------------|——|——|——|——|——|——|

| 3. Provision of Cheap Credit | Loan for 80% of the Cost at 1% per annum over 15 years | Loan for 80% of the Cost at 5% per annum over 14 years | — | — | — | — |
|-------------------------------|----------------------------------------------------------|---------------------------------|——|——|——|——|
| (a) Direct Cheap Credit | — | — | — | — | — | — |

| (b) State Guarantees for New Loans | YES | YES | — | — | — | — |
|-----------------------------------|——|——|——|——|——|——|

| (c) Moratorium on Past Loans | — | — | — | — | — | — |
|------------------------------|——|——|——|——|——|——|

**Sources:**
*Lloyds List*  
*Fairplay*  
*Seatrade*. 
it can compete in the tramp market, bringing home foreign exchange, necessary for the purchase of foreign commodities, and especially grain. With a diminished quantity of seaborne trade, and an overcapacity of tonnage, these subsidized vessels are able to undercut Greek and other nations competitiveness, with freight rates that have already been cut to the bone.

There is little action that can be taken against such anti-market measures. The only answer put forward to date, is to ban vessels of protectionist subsidized fleets from operating into the ports of free-trade countries. The EEC Commission has considered such a measure. However, even this proposal is fraught with problems of its own. To take an example of how this policy might work, let us analyze the British cruise market.  

British cruise companies are unable to offer cruise business from the Soviet Union's ports as this is protected for Soviet vessels. However, the Soviet Union still operates an intensive cruise programme out of the port of London, and from several other UK ports over the course of the year. Under the reciprocity protection scheme proposed, all the Soviet cruise ships sailings would be banned – unless of course, P & O or Cunard, or whomever, were allowed to operate cruises out of the Soviet Union. In itself, this example appears to be quite simple, but in practise there

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are many problems.

If the Soviet Union were to open up its door to the UK cruise companies, there would nothing to stop the Soviet Union from operating competitive cruises, heavily subsidized by the state which, due to their cost differentials, would remove almost all the Soviet-generated trade from any UK vessels. As such, the Soviet cruise ships would still be free to trade from the UK, but no British cruise company could afford to subsidize the Soviet Union-generated trade and there would, therefore, still be no UK vessels operating from Soviet ports.

A simpler answer, perhaps, is for the free-trade states to ban subsidizing vessels from competing in their home markets. The problem here, however, is identifying what constitutes a subsidized vessel. In the above-mentioned case, for example, the Soviet Union does not admit that its Port of London operations are subsidized.

Probably the only workable answer is for both of the above aspects to be taken into account, and for the adoption of a port-state-control licensing system that would view each application with a flexible policy related to what mutually advantageous operating rights and facilities were available. Nevertheless, with each application being studied on its own merits, numerous complications would undoubtedly ensue.
As regards the example used, the present British government's apparent view of this situation is quite straightforward and laughably simple: If the Soviet Union wishes to subsidize British passengers and cargoes, let them carry on. In the final analysis, it is the passenger/shipper who benefits and not the ship operator, in this case the Soviet Union. The latter simply keeps losing money at no cost to the UK. In fact, this appears to be an active policy position of both the UK and the U.S. These governments are not perturbed if the Soviet Union subsidizes their cargoes, they actively encourage it. In the long run, it theoretically leaves the UK and the U.S. better.

World shipping, however, and more importantly, Greece, is left much worse off. Fleet subsidization is a major threat to free trade and cross-traders. The continued growth of the Soviet fleet will be the determining factor in how large a threat it will be.

D) New Competition

The fourth and final implication of recessionary effects is the growth of new competition for established maritime nations. Following the above analysis, this will come from LDCs (including South Korea) and Eastern Block countries, especially the Soviet Union. The potential threat of LDCs does not appear to be large, unless open registries are phased out, which is unlikely, or unless the
UNCTAD Code is extended to the tramp market, which is even less probable. South Korea, with its abundant supply of labor and relative affluence, is likely to be the most competitive, and, in fact, is proving to be. There is, however, no reason why South Korea should have any comparative advantage over the convenience vessels or Greek vessels, since both utilize crews of convenience.

It should also be noted that the development of LDCs' fleets has one major weakness. 13 It is true that LDCs have cargoes of exports to transport. However, once a vessel has discharged, it must then return home. It would be prohibitively expensive to ballast back, and the vessel must, therefore, find employment. Since LDCs' vessels are unlikely to be highly competitive, gainful employment is unlikely to be found, thus incurring great costs on LDC fleets, and their continued success doubtful.

The potential threat of Soviet competition is hard to assess, as has been stated above. The sentiment in the shipping community, however, is that the threat is not that substantial. 14 This is because the Soviet Union is not wealthy enough to keep pouring rubles into shipping, and the foreign exchange earnings are not large enough to warrant the expense anyway - except in times of prosperity with high

13 See MCHUGO INTERVIEWS #6 with IANNIS ANGIOLAKIS.
14 See MCHUGO INTERVIEW #1, with Professor Stratopoulos, for example.
freight rates.

From this analysis, it would appear that the developments in world shipping created by recession ought not, in the long run, to have too great an impact on Greek shipping. This, however, is quite definitely an optimistic conclusion. World recession is not yet over, especially in terms of trade and shipping. LDC debt, exchange rate, and balance of payment problems are still prevalent. Many contingencies still have to be dealt with. It can, however, be said that the waters are not as rough as many have perceived them to be.

SPECIALIZATION AND CONTAINERIZATION OF WORLD FLEET

During the postwar period technological innovations in shipping were restricted to technical improvements, such as hull-shape, and the automation of vessels. With rising living standards and, thus, higher wages, in maritime nations, automation was the key to low, and, in fact, declining transportation costs in shipping. Whereas immediately after the war a 14,000 DWT vessel would require a crew of around 35, the same vessel only required a crew of seventeen in the 1970s. Technical improvements led to the construction of progressively larger vessels, from which dramatic economies of scale were realized, especially in the transportation of
crude oil. 15

Beginning in the sixties, Research and Development was undertaken in a new field—namely the specialization of vessels. By the early 1980s, at the time of the crisis in Greek shipping, these innovations started to change the face of world shipping. The growth of specialized vessels, such as vessels for transporting vehicles (Ro-Ros), combination carriers (OBOs), vessels for transporting beer, liquid natural gas, and other vessel types, 16 meant the displacement of all-purpose bulk-carriers, a vessel type substantially utilized by Greek shipowners. These specialized vessels, much more efficient in the transportation of their respective cargoes, eroded the dominance of Greek tonnage in the tramp market. Greek shipping, comprised of old and all-purpose vessels, could do little to respond.

Equally important, was the evolution of containerization during the 1970s, and even more so, in the 1980s. The whole philosophy behind containerization is the packing of cargo into uniformly sized boxes (containers) and then design all carrying vehicles (road, rail, and ship) for the swift, safe and efficient transport of these containers, ideally from "door to door". 17

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15 For a discussion on vessel types and size, see Appendix 1.
16 See Appendix 1.
The idea of carrying things in containers is not new. What is new about the current practise of containerization is the sophisticated but standardized container handling equipment, which enables one man to load a container with speed and precision so what is generally meant when talking about containers possibly only goes back to about 1956 when containers were introduced on some American coastal routes. The first trans-Atlantic container-service began in converted ships in 1966. In 1967 several large Container Consortia were established, like ACL (Associated Container Lines) and OCL (Overseas Containers Limited). Because of the large capital involved, shipping companies came together to establish these consortia. ACL for example, was formed by Cunard, Holland American Line, Swedish American Line, Swedish Transatlantic and French Line. In 1970, there were 167 container ships in operation, with a total tonnage of 3.1 million tons. In 1977, there were 507 container ships in operation, with a total tonnage of 7.5 million tons. In 1984, there were close to 1000 container ships, with tonnage of 15 million tons.

There are four major advantages of using containers. First, speed and economy in handling, particularly at the interfaces (ie, ports). One gang of twelve or thirteen men can discharge and load a container ship in three or four days instead of a hundred men taking three or four weeks on a non-container vessel. Second, safety, both as regards...
brokerages and pilferage, the latter being a significant problem in transporting many cargoes such as whiskey and radios. Third, the quantity of packaging used, and the time used for packaging, can be reduced. Fourth, containers offer a literal door-to-door service.

There are five major disadvantages of container utilization. First, money; massive capital outlays need to be made for container vessels, which are substantially more expensive than conventional vessels. Second, each ship needs three sets of containers, ie, one set at each terminal and one on the ship. Individual containers are expensive. They have to be maintained and repaired and have a life expectancy of only about seven years. Special containers such as "reefer" containers are even more expensive. Third, special terminals have to be constructed with expensive high speed cranes capable of lifting forty tons plus. Expensive equipment also has to be purchased to move the containers around the terminal. Fourth, the problem of "an imbalance of trade" in containerizable cargo. This leads to the unprofitable movement of empty containers. Fifth, there have been a number of problems involving customs, documentation and legal technicalities, but, as more experience is gained with containers, those are being solved.

What are the implications for Greek shipping of containerization? First, the likelihood of Greek shipowners

18 ie, containers with refrigerators.
being heavily invested in container ships is very small, because of the heavy capital outlays. Second, containerization will not have dramatic effects on Greek shipping, because it is revolutionizing the liner conferences, but not the tramp market. The nature of container vessels is such that they must operate on schedules and between various ports. Containerization, therefore, will only effect Greek shipping to the extent of Greece's functioning in the liner conferences, which is limited and, also, to the extent that trade moves out of the tramp market to the liner conferences, which will be limited.

**OPERATING COSTS**

As analyzed within this thesis, the differentials in operating costs between Greece, and flag of convenience nations, and other maritime nations has been narrowing over the last decade. The eroding of the comparative advantage enjoyed by Greece and flag of convenience nations in shipping is the single largest threat facing these maritime nations. The United States and the United Kingdom, both great seafaring nations, lost their comparative advantage in shipping, and no longer rule the waves. The same threat must be overcome by Greece if it is not to face the same
There are three major reasons for the erosion of the operating cost differential. First, subsidization, as has been already discussed. Second, increased efficiency in operating by non-flag of convenience nations. Third, there have been a number of other independent factors, which have all helped reduce the operating costs of non-flag of convenience maritime nations and, in particular, the Northern European nations. These factors will be analyzed in this section.

Figure 3 shows the trends in average operating costs for a 25,000 DWT bulk carrier from 1973 to 1983, between flag of convenience nations and European flags. In 1973, the cost differential, per annum, was over $100,000. In 1978 this differential was over $300,000. In 1983, however, it was only $80,000.

The cost of crew has been one of the major reasons for the narrowing of this differential. Manning costs on bulk carriers of all sizes and flag have more than doubled over the ten year period from 1973-1983. This increase in manning costs has been greater for flag of convenience nations than for others. This can be seen in Table 9. In a study

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1 For an excellent discussion of these, see Drewry, Shipping Consultants Ltd: "Dry Bulk Carrier Operating Costs - past, present and future", May 1984.
FIGURE 3
TRENDS IN AVERAGE OPERATING COSTS FOR 25,000 DWT BULK CARRIERS

$ Million
per annum

Source: Drewry Shipping Consultants Ltd.
by Drewry Shipping Consultants Ltd. 2 manning costs for vessels of the 25,000-120,000 DWT range, registered under flags of convenience, were seen to rise from between $0.32-$0.42 million per annum in 1973 to $0.77-$0.95 million in 1983. 3 This represents an increase of between 126 and 141 per cent.

**AVERAGE MANNING COSTS ON DRY BULK CARRIERS, 1973-1983**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Convenience Flag</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ 25,000 DWT</td>
<td>320</td>
<td>650</td>
<td>720</td>
<td>765</td>
</tr>
<tr>
<td>+ 40,000 DWT</td>
<td>335</td>
<td>680</td>
<td>750</td>
<td>795</td>
</tr>
<tr>
<td>+ 60,000 DWT</td>
<td>345</td>
<td>710</td>
<td>800</td>
<td>840</td>
</tr>
<tr>
<td>+120,000 DWT</td>
<td>420</td>
<td>800</td>
<td>900</td>
<td>950</td>
</tr>
<tr>
<td><strong>North European Flags</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ 25,000 DWT</td>
<td>470</td>
<td>950</td>
<td>975</td>
<td>965</td>
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<tr>
<td>+ 40,000 DWT</td>
<td>495</td>
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<td>995</td>
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<tr>
<td>+ 60,000 DWT</td>
<td>515</td>
<td>1,050</td>
<td>1,030</td>
<td>1,010</td>
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<tr>
<td>+120,000 DWT</td>
<td>600</td>
<td>1,150</td>
<td>1,125</td>
<td>1,100</td>
</tr>
</tbody>
</table>

SOURCE: DREWRY SHIPPING CONSULTANTS LTD.

**TABLE 9**

In comparison, crew costs on Northern European flag ships

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3 Greece is included in the flag of convenience group in this study.
have increased from approximately $0.47-$0.60 million per annum in 1973 to $0.97-$1.10 million in 1983. This represents an increase of 83% to 106%, far less than the increase for flags of convenience. The reduction of the manning cost gap between the two flag groups can be largely attributed to the combination of three principle factors. The first two are linked and involve wage levels and crew sizes. The increase in flag of convenience wages can be accounted for by inflation and the actions of the ITF, which, in working to eliminate bilateral wages, has driven up the wage and salary levels for the nationalities commonly found on Greek and flag of convenience ships.

North European owners, on the other hand, to avoid increased manning costs, have worked to decrease the size of crews on vessels, and have been more effective in this than the Greeks and flag of convenience nations. This can be seen in Table 10.
CHAPTER 5

AVERAGE MANNING LEVELS, 1973/4 - 1981/2

<table>
<thead>
<tr>
<th></th>
<th>1973/4</th>
<th>1981/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUROPEAN FLAG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ 25,000 DWT</td>
<td>32</td>
<td>28</td>
</tr>
<tr>
<td>+ 40,000 DWT</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>+ 60,000 DWT</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>+120,000 DWT</td>
<td>29</td>
<td>27</td>
</tr>
</tbody>
</table>

| CONVENIENCE FLAG            |        |        |
| + 25,000 DWT               | 35     | 29     |
| + 40,000 DWT               | 51     | 38     |
| + 60,000 DWT               | 36     | 28     |
| +120,000 DWT               | NA     | 29     |

SOURCE: DREWRY SHIPPING CONSULTANTS LTD.

TABLE 10

The third, and perhaps the most important, variable controlling the development of manning costs is the phenomenon of currency fluctuations, where the conversion into dollars of costs (in this case wages and salaries) paid in the national currency of a vessel's flag or crew, can underlie considerable actual increases or reductions in the manning costs year by year. The instability of exchange rates has been particularly acute since 1977, and may account for much of the change in operating costs in dollars.
A second reason for the narrowing of the differential has been activity in repairs and maintenance (R&M). Various downward market pressures and the introduction of new methods and techniques in the ship repair industry have combined to reduce the level of importance of R&M costs on all but handy-sized bulk carriers. However, R&M costs of the Greek and flag of convenience vessels have continued to rise during the 1980s and are consistently greater, both in absolute terms and in terms of the proportion of total operating costs this expense represents, than those of their Northern European counterparts. This may be explained in part by the larger proportion of aging bulk carriers in Greek and convenience flag fleet which require more thorough and, thus, expensive special surveys.

The rate of decrease in real costs is a third reason for the narrowing cost differential. The rate of decrease in the real costs has accelerated over the five year period from 1978-1983 and has been more rapid for North European flag vessels. costs declining at an average annual rate of 6.2%, against a 3.3% annual decrease in flags of convenience costs. This can be seen in Table 11.
CHAPTER 5

ANNUAL REAL GROWTH RATES BETWEEN 1973 AND 1983

<table>
<thead>
<tr>
<th>DWT</th>
<th>CONVENIENCE FLAG</th>
<th>NORTH EUROPEAN FLAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,000</td>
<td>-1.1</td>
<td>-5.5</td>
</tr>
<tr>
<td>40,000</td>
<td>-3.6</td>
<td>-6.2</td>
</tr>
<tr>
<td>60,000</td>
<td>-4.0</td>
<td>-6.5</td>
</tr>
<tr>
<td>120,000</td>
<td>-4.6</td>
<td>-6.4</td>
</tr>
<tr>
<td>平均</td>
<td>-3.3</td>
<td>-6.2</td>
</tr>
</tbody>
</table>

SOURCE: DREWRY SHIPPING CONSULTANTS LTD.

TABLE 11

Finally, further efforts by non-convenience flag nations to reduce manning levels and increase efficiency of vessels, will narrow the cost differential even further. Principally, crew reductions are emerging through the "designing out" of high work load areas on existing vessel designs. The increasing use of microcomputer technology, as well, allowing a more sophisticated level of automation has made the "12 man" ship design a distinct possibility, perhaps to be seen entering the bulk carrier fleet by the end of the decade. As the cost of bunkers has become the most significant element of bulk carrier operating costs, it is in the area of fuel-economy that efforts to reduce costs are likely to be concentrated in the future.

It is vital that Greece is involved in these efforts to reduce manning and in research and development in the area
of fuel-economy. Seamen also have to be trained that can operate these highly technical vessels of the 1980s and 1990s. Otherwise, Greece's comparative advantage will be lost, and Greece no longer be the maritime nation that it was.

PROBLEMS PECULIAR TO THE GREEK FLEET

The many problems and characteristics of Greek shipping, outlined at the beginning of this chapter, and analyzed in detail throughout this thesis, weighed heavily on the Greek shipping community as it was confronted by the crisis of the 1980s. In times of prosperity, high freight rates and demand subordinated these problems and characteristics, making them deceptively insignificant. The Greeks rode the crest of the wave.

Face to face with crisis, however, and most definitely in the trough of the same wave, these ubiquitous problems and characteristics became paramount. The future survival of the Greek shipping community was dependent on how these problems and characteristics were dealt with.

The analysis of the problems and the characteristics of Greek shipping can be read in Chapters Three and Four. In this section, (a) the role of the government and (b)
utilization of flags of convenience will be further analyzed, owing to new developments and significance.

a) Government Intervention

The Greek shipping community's fear of Andreas Papandreou's coming to power was well justified. Papandreou's socialist aspirations of nationalization and harnessing the shipping community to the state, in order to boost invisible earnings, are unfavorable to Greek shipping's cause. Whether they are favorable to the country is another question, and answerable only by one's political persuasion. Fortunately, however, for the Greek shipping community, Papandreou, as regards his aspirations, has not yet proved to be fanatical (with one exception).

Coming to power at the beginning of the shipping crisis, Papandreou realized that pursuance of his aspirations would have disastrous consequences for Greek shipping. His policies, including increased taxes and improved conditions on vessels, necessarily implied higher operating costs for shipping companies. These increased costs would not be sustainable by many of these companies, leading to bankruptcies. Therefore, Papandreou took no action, and still has not today. If the outlook for Greek shipping improves, it is possible that he will take action. His policy stance has not changed since he came into power, and he is now supported by a socialist president, with the resignation in
April 1985 of the old guard Karamanlis, who had acted as a mediating force. Such action, if and when taken, would constitute a threat to Greek shipping. However, since an improved outlook is a prerequisite for such action to be taken, it cannot be considered a threat to the present crisis.

The one exception to Papandreou's passivity has been in the employment of crews. In January, 1983, the Minister of Mercantile Marine, Katsifaras, announced the government's measures aimed at "restoring the competitiveness of Greek ships".\(^4\) In fact, these measures were a veiled attempt to relieve unemployment among Greek seamen.\(^5\) These measures were:

1. Officers and lower deck crew categories in which the degree of unemployment exceeds 3% will not be allowed to remain in the service on board ship for more than seven and a half to nine months, thus establishing a rotation of crew.

2. The number of lower deck crewmen required to make up a ship's complement can be reduced, provided the safety and proper functioning, and living conditions on board are not affected.


\(^5\) In June, 1982, there were 4,305 unemployed seamen; by January 1983 there were 13,482. (See Naftiliaki special study, 1983, p. 49.)
(3) All foreign nationals serving as officers on Greek ships are to be dismissed and replaced by Greeks.

(4) All officers can serve on foreign-flag ships and pay their contributions towards their pensions. This measure will last only as long as the crisis continues.

(5) Laid-up vessels will be manned only by unemployed seamen as watchmen.

(6) A seaman can be signed on only after his shore leave has expired.

(7) Legislation in Parliament for the democratization of the maritime unions and the safeguarding of union freedom without jeopardizing the country's interests and taking into account the special conditions of the shipping industry.

(8) The use of foreigners as lower deck crews is allowed in proportions ranging from 25 to 30 per cent, provided no Greeks are available. They will be the wages that are customary in their country of origin. The Greek Shipowners Union can sign bilateral agreements with foreign maritime unions for the engagement of such crews, paying certain contributions to NAT. 6

The combined effect of these measures has been to increase the running costs of Greek flag vessels, through higher crew costs. The apparent concessions within the

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6 Seamen's Pension Fund.
measures are negligible. First, vessels already operated with the minimum size crew. Second, officers were allowed to work on foreign flag vessels anyway, yet generally preferred to work on Greek vessels for cultural and language reasons. Third, previous legislation permitted foreigners as lower deck crew, up to 25% of total crew, and this regulation had never been adhered to anyway.

The measures designed to relieve unemployment, on the other hand, have had a dramatic effect on the running costs of Greek vessels. The rotation of crews policy has had the largest impact, because it incorporates a number of large costs. First, it as much as doubles the repatriation costs. Repatriation is the returning of crews to their homelands. Before the rotation policy, a seamen would work on the vessel until it returned to his home port, which might be six months or two years. This would involve no repatriation costs. With the rotation policy, however, a seamen has to be repatriated, from wherever the vessel is, when his time expires. This might be from halfway round the world. The shipping company will have to pay the cost of repatriation, which will, in most cases, be a very expensive plane ticket. Repatriation costs come under the miscellaneous section of running costs, thus effecting a vessels operability. 7

7 Running costs are included in a shipbrokers voyage estimates, from which they decide freight rate to "offer" a shipper. The higher this offer, the less competitive, and the less chance of obtaining a fix.
CHAPTER 5

Second, every vessel is different, and the more experience one has with a vessel, the more efficiently it can be operated. Crew rotation, therefore, will effect the efficient operation of a vessel. Third, the continual rotation of crew will create friction among crew members, leading to inefficiencies. Fourth, there is the cost of finding new crew to replace the old crew.

The costs of the crew rotation policy are extremely high. Shipping companies have attempted to deal with it by the purchase and establishment of travel agencies and crew offices. Such attempts are both resourceful and helpful, but the burden of increased costs remains. With the advent of improved economic conditions, the quantity of unemployed seamen will decline, which might induce the government to rescind the policy. Until then, the burden must be borne.

The replacement of foreign nationals serving as officers on Greek vessels by Greeks has increased crew costs. With the existence of a bilateral wage differential, it is cheaper to employ a foreign officer. Additionally, it was advantageous to have an officer of the same nationality as one's lower deck foreign nationals. Although hard to quantify, this is a cost that must be dealt with.

The democratization of the maritime unions has increased the pressure the unions can assert in wage bargaining. This, inevitably, has led to higher wage settlements and, once again, increased running costs. This is a
permanent problem which the Union of Greek Shipowners will have to learn to live and deal with.

In short, the government's measures designed to relieve unemployment among Greek seamen have had a debilitating effect on Greek shipping's competitiveness. This is especially demoralizing when one considers that shipowners believe the unemployment figures for Greek seamen are vastly over-exaggerated. In order to draw unemployment benefits, one has to be in the act of searching for a job. Individuals that desire to remain unemployed, claim they are searching for jobs on ships, when, in fact, they are not, thus bloating the unemployment figures. Since these government measures will be maintained until the crisis is over, they have to be dealt with within the crisis itself.

b) Flags of Convenience

The present crisis of Greek shipping has led to the predictable flurry of deflagging and utilization of flags of convenience. In 1982, 265 vessels left the Greek Registry; of these, 77 left in order to change flag. In 1981, 77.68% of total Greek-owned tonnage was registered under the

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The remaining 188 left because they were sold (178) and were casualties (10).
Greek flag. In 1983, 71.19% of total Greek-owned tonnage was registered under the Greek flag, a decline of 6.67%. Interestingly, a new flag, the Maltese, made its first appearance on the Greek scene, with 38 ships being transferred from the Greek to the Maltese flag in 1982.

Whereas in previous crises, the utilization of flag of convenience registries had enabled Greek shipowners to circumvent difficulties that existed with the Greek registry, this was not the case in the crisis. First, many of the problems were common to the world fleet as a whole. These include recession, with low freight rates and diminished quantities of seaborne trade, and an overcapacity of tonnage. Second, many of the problems were faced not by Greece alone, but by all flag of convenience countries. These include threats from both the ITF and UNCTAD, and increased competition from new maritime nations. Third, the tramp market was now burdened with protectionism and subsidization, eroding the natural comparative advantage Greece and the flag of convenience nations previously enjoyed. Fourth, whatever flag one was registered under, one still had to deal with the specialization and containerization of the world fleet. For the above reasons, the utilization of flag of convenience registries was not advantageous in the crisis of the 1980s. The serious problems still had to be faced.

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Today, in April, 1985, the Greek shipping community is still plunged in crisis. Little has changed since 1982. World trade has picked up. How long this can be sustained, however, is open to doubt, and depends on the stabilization policy adopted by the United States. If fiscal policy is tightened, controlling the deficits, and monetary policy is loosened, lowering both interest rates (globally) and the dollar exchange rate, trade will continue to pick up. This would help the cause of Greek shipping. If, however, as is more probable, the deficits are not controlled and monetary control remains tight, the outlook for trade is not good. Clearly there are many contingencies and it is impossible to give a definitive answer. On the one hand, it would appear that Greek shipping is bound for doom, but on the other hand, how can one ever count out those... "awkward Greeks".
CHAPTER SIX
CONCLUSION: THE AWKWARD GREEKS
That Greek shipping is undergoing a severe crisis needs little reiteration. A summary of the causes of this crisis can be found at the outset of Chapter Five. By way of conclusion, the author would like to end what has otherwise been, at best, a gloomy narrative for Greek shipping on a note of optimism.

The author firmly believes that, against all odds, Greek shipping will survive. He is not alone in this belief. David Glass, the editor of Naftiliaki shipping magazine, holds the same belief and expressed it in an editorial:

There is a survival dynamic about Greek shipping which may not always be obvious to readers of this editorial page. Often enough here we have pointed to opportunities missed by one sector or other of the shipping community, or urged owners, Ministry or Unions (sometimes all three) not to pass up options about to be removed for ever as the result of developments elsewhere to which we feel insufficient attention has been paid. To the regular reader indeed, it may seem a miracle of sorts that Greek shipping can survive at all against a background in which so little policy direction is evident.

There is, too, something almost awkward about Greek shipping's survival and growth, as you can sense sometimes in the city of London. Indeed an outsider listening to the harshly negative tones in which some Lloyd's brokers discuss Greek owners would never suspect that they and the city of London itself have for years been

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1 See Naftiliaki, November 1984.
Also see MCHUGO INTERVIEW #11 with David Glass.
dependent on this awkward dynamic for much of their living.

Lloyds Shipping Economist has produced a report which, for all its bow in the direction of Greek owners as "supreme opportunists", is largely devoted to the raising of a heavy question-mark over Greek shipping's whole future. However well-presented, the report boils down to the usual gray catalogue of bilateral and cargo-sharing pressures, and the presumed effect of increasing intergovernmental action on a fleet manifestly older and statistically more accident-prone tonnage than any other in the major league.

As usual with such catalogues, it misses the real point about Greek shipping; the same point missed, or ignored, by those bowler-hatted critics of their Greek clients mentioned earlier. That no such "blanket" approach can adequately encompass a fleet such as the Greek, which is and always has been as flexible, and as awkward, as the hundreds of individual ownerships of which it is composed. If older ships can't be worked, then depend upon it Greeks will buy younger ships. And just as long as there are developing nations and shallow harbors and ports of call of insufficient inducement for the sophisticated liner company, then Greek owners on the way up will sail older ships into those ports, and earn enough profit from doing so to upgrade themselves in turn the year after next.

This is the awkward dynamic at work. Greek owners will certainly come under pressure, a few will go under, Greek shipping will survive. And one additional reason it will survive is that, in different ways (and quite apart from the city of London and its invisibles), it is in the interest both of the developing nations (forget all the UNCTAD platforms) and the EEC that it should.

There are a number of ways in which the survival of Greek shipping may come about. Beneath are discussed the most probable of these.
Fleet Modernization

It is vital that the Greek shipping community modernizes its fleet. Many of Greek shipping's problems stem from the characteristically mature age of its vessels. These problems include a high casualty rate, heavy insurance premiums, an increased probability of being laid-up, more expensive operating costs and, internationally, a bad reputation. Greek shipowners have the leverage with their bankers to carry this modernization out.

The benefits of modernization would be far reaching. The casualty rate would decline and, simultaneously, Greek shipping's public relations would improve. Lower insurance premiums would be attained. Operating costs, with the automation and fuel-economies of modern vessels, would be lower. Greek shipping would, also, with fleet modernization, be keeping up with the trend towards specialization in vessels.

Along with fleet modernization, the Union of Greek Shipowners, the large shipowners, and even the Ministry of Mercantile Marine, should invest heavily in Research and Development. The North European maritime nations are reducing their operating costs by such investments, and the dream of a 12-man vessel may be a reality by the end of the decade. Greece must keep up with these trends, or their comparative advantage will be lost forever. Greece's accession to the EEC will be of major benefit in this field,
bringing them in closer union with the North European fleets.

The time has now come when the disadvantages of old-age tonnage outweigh its benefits. Greater profits are to be made with modern tonnage, and Greek shipping must act.

The Right Commodities

It is important that Greek shipowners choose to invest in the right size of vessel to operate in the right commodities. The "right" commodities are those commodities for which there will be a large increase in the quantity transported by sea in the decades ahead.

A good example of a "right" commodity may be coal, to be carried in 100,000 DWT carriers. Today 25% of the world's energy is supplied by coal, but because of the ever growing scarcity of oil (and complications by OPEC), it is expected that other sources of energy, and especially coal, with its vast reserves and relatively low prices, will eventually reach 60% of the total energy supply.

According to recent studies \(^2\) coal must supply between 50% and 75% of the additional energy needed during the next

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twenty years, in which case the world's total coal produc-
tion will have to increase between two and a half to three
times, and the production of steam coal ten to fifteen
times, from 1979 levels. The total geological coal
resources of the world are estimated at about 10,780 tril-
lion tons, with, at present, technically and economically
recoverable reserves of approximately 682,902 billion tons.
Four countries, the US, China, Soviet Union and Australia,
account for about 90% of the resources and about 60% of the
reserves.

Table 1 shows, analytically by country, the coal export
projection (OECD figures) until the year 2000.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>AUSTRALIA</th>
<th>CANADA</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>78</td>
<td>13</td>
<td>85</td>
</tr>
<tr>
<td>1990</td>
<td>105</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>2000</td>
<td>160</td>
<td>15</td>
<td>200</td>
</tr>
</tbody>
</table>

SOURCE: OECD.

According to these figures, the international coal trade of
the OECD countries will increase from 160.3 in 1985 to 422
million tons in the year 2000. If one adds to this the coal
trade originating from and to the East and Comecon coun-
tries, the figures will be between 900 million and one
billion tons per year. If, for simplicity, the coal will be carried on 100,000 ton carriers performing ten round trips per year, it will require 1,000 vessels of 100,000 tons each or more to satisfy the demand. If one compares this required capacity to total world bulk carrier tonnage of 183 million tons, there is a real requirement of more capacity in coal carrying vessels.

Why can it not be Greek shipping that fills this gap?

Internal Aid

When the liberty of Greece has been threatened, the Greek shipping community has always been the first to sacrifice itself. It is only proper that, in times of a shipping crisis, the nation should come to the aid of Greek shipping. It is important that Greek shipping interacts more with other sectors of the Greek economy. Many shipowners have come to realize this.

Presently, all financing for Greek shipping is external. There is little, if any, internal finance. The Greek hotel industry has an agency that helps it with financial difficulties. The shipping sector has no such agency.

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4 See MCHUGO INTERVIEWS: #1, Stratopoulos; #2, Lelakis; #6, Economakis; #7, Delacouras; #8, Papistas; #14, Angelakis. (All shipowners).
rather, the government records the number of bankruptcies.

Insurance companies, and P&I clubs, used by Greek shipowners are all foreign. With the importation of skilled human capital, the insuring of Greek vessels could be carried out by Greek insurance companies. This would aid the economy and, more importantly, Greek shipowners, who are continually having extra premiums slapped on them by foreign insurance companies.

There are other sectors of the economy in which interaction could be improved. For instance, the shipyards, chandlers, unions, and, maybe even, the government.

Diversification

In a seminar entitled: "Diversification out of Shipping", given by Marine Midland in Piraeus in April, 1984, Greek shipowners were told that the returns from shipping were unacceptable (as if they needed telling) and that it was time to diversify their investments.  

Mr. Revell, the vice-president of Marine Midland, told shipowners that their annual return on capital over the past few years, at best, was around 2%, and "in other words, totally unacceptable and the recipe for bankruptcy". He said: "Even placing funds on deposit with a bank would have

5 See Lloyds List, April 8, 1984.
rewarded the shipowner with an acceptable return, keeping pace with inflation and without all the hassle that day-to-day operation and ownership of vessels entail. He did not want to encourage "panic" measures to get out of shipping by "quick sale of vessels, sacrificing vessel maintenance or general liquidation on the part of the Greek shipowner". Rather, Revell's appeal was aimed at the Greek shipping community that still had surplus funds or could generate them through bank borrowing.

Revell told them to consider alternatives to shipping which, in most cases, would run parallel to the basic shipping business. These might include hotels, travel agencies, commodity firms, etc. The author, however, would recommend investment in alternatives that do not run parallel with shipping. Diversification into parallel business means that in times of shipping recession, these other businesses will also be slack, thus not solving the problems of liquidity. By investing in non-parallel businesses, liquidity can be maintained in periods of shipping recession. Investments in banking and finance themselves may be a viable alternative.

Maritime Joint Ventures

It was noted earlier that manpower, capital, expertise, and cargo are required for success in shipping. If LDCs are to capitalize on their abundance of cargo and manpower in
order to develop their own fleets, why does not Greek shipping capitalize on its abundance of capital and expertise to invest in joint ventures with LDCs?

The author put this question to shipowners, whose responses were mixed. On the one hand, they all felt it would be a viable and profitable venture. On the other hand, they felt that it would be a dangerous venture. Investment in LDCs, and, especially, with nationals of LDCs, is considered dangerous because of the political instabilities common to LDCs.

If contracts could be written up that circumvented any political complications, then joint ventures with LDCs are an extremely viable option for Greek shipowners. Greek shipowners have been spreading feelers out in this direction, including a number of conferences in Piraeus, and, hopefully, further, more tangible moves will be made.

Innovations

On May 1, 1985, trading will start on the newly formed Baltic International Freight Futures Exchange (BIFFEX) in London’s Baltic Exchange, the only shipping market where

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6 See "Maritime Joint Ventures", Conference for Marine Club of Piraeus, October, 1984, given by J. Petropoulos, for example.
traders still meet face-to-face. This is an example of an innovation in the shipping world that might come along and help the cause of Greek shipping, radicalizing world shipping. In today's dynamic world, there is by no means a small probability of this occurring, and innovations might even be as dramatic as the adoption of a new method of propulsion, driven by a new source of energy other than oil.

Innovation was the cause of the fourth crisis of Greek shipping, namely the advent of steam. It is important that the Greek shipping community keeps abreast of developments in the shipping world so that, this time, they will not be left behind.

* * *

Greek shipping will survive the crisis of the 1980s. Externally, it may be a modern, streamlined fleet that emerges from the storm, in juxtaposition to the aged hulls of the past. Yet, internally, it will be the same engine that drives Greek shipping. The engine, manifesting supreme opportunism and diligence, that has driven Greek shipping

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8 The evolutive process is in motion is this area. Oil reserves will not last forever, and alternate sources of energy are being tested. Coal is the obvious solution - although there is lack of modern technology in coal combustion. Possibilities in the coal combustion area include Fluidized Bed Combustion, Magneto-Hydrodynamic technology, and gassification.
throughout history, and will continue to do so until there are no longer oceans to navigate.
APPENDICES
Figure 1 gives a diagrammatic breakdown of the different kinds of ships. The section that is of primary concern here is that called "ships which carry things" (for want of a better term). In this appendix, each of these types of vessel will be taken in turn and discussed.

The Passenger Ship

Prior to the Second World War, and in the years immediately following, travel by sea was the accepted mode of international passenger travel. Passenger liners were profitable to operate. The more famous became household names and to command one was considered the pinnacle of the seafaring profession.

That there has been a change is self-evident. On the North Atlantic where once a fleet of ships ferried the rich and famous on regular services throughout the year, there are now just a few summer sailings. The cause of the change is equally obvious - the advent of cheaper jet travel. Apart from the jet, there have been other factors such as the closure of the Suez Canal, the labor-intensive nature of passenger ships, and ever-increasing wages. Further, until the late 1960s governments encouraged the growth of large,
THE DIFFERENT KINDS OF SHIPS

TYPES

SHIPPING VESSELS
CABLE SHIPS
RESEARCH SHIPS
SHIPS WHICH KEEP THE SEA LANES OPEN
DREDGERS
SURVEY SHIPS
TUGS

SHIPS WHICH CARRY THINGS

ASSISER
LONG DISTANCE
SHORT DISTANCE (FERRIES)
O-RO
HORSE CRAFT
HYDROPOELS

GENERAL CARGO
UNIT LOAD
BREAK BULK

BULK

TANKER
DRY BULK
COMBINATION
0/0
0.8.0
0.0.0

TIMBER
SPECIALIST
CHEMICALS
BEER
WINE

OIL CARRIERS
REFINED PRODUCT CARRIER
LIQUID NATURAL GAS
fast passenger ships for military purposes. Winston Churchill referred to the Queen Mary and Queen Elizabeth as "war-winning weapons". Now, however, troops, like passengers, are largely carried by air. 1

The effect of the above factors has been a worldwide decline in the quantity of passenger ships. Also, there has been an improvement in the design of ships so that more passengers can be carried in greater comfort, with fewer crew. A decade ago, the average passenger ship carried one passenger for every fifty gross registered tons. Now this figure is nearer one passenger for every 30 GRT. The ratio of passenger to crew is now nearer four to one rather than two to one previously. 2 The question of design also raises what is the initial deterrent facing the passenger ship operator, namely the astronomical capital outlay of a new construction. The QE2 cost over US$ 1,000 a ton to build.

The passenger ship fleets of all countries, with the exception of the Soviet Union and Greece have declined. 3 For the Soviet Union, who can meet all her costs in rubles, offering cruises to foreigners has become an efficient method of earning foreign currency. Greece has moved into the cruising field, offering packaged tour types of

1 This is not always the case: Margaret Thatcher requisitioned the QE2 for her offensive in the South Atlantic - The Falkland's War.
2 See Alderton, 1980, p. 22.
3 See GNBS, "Shipping Statistics", 1979, p.121
holidays. In 1960, Greece had 65 passenger ships (including ferry boats). In 1970, 203, and in 1981, 354. This figure has declined only to 349 with the recession. As this form of holidaying becomes more popular, and prosperity returns, Greece will inevitably capitalize on it further.

The General Cargo Liner Ship

It is estimated that at the moment the dry cargo liner moves about two-thirds of the world seaborne trade by value and about one quarter by weight. The general cargo liner ship has not changed fundamentally in the last forty or fifty years. It has grown slightly in size and its operating speed has also increased. The greatest advances have been made in the sophistication of her equipment, i.e., cranes, steel hatch-covers, flush deck hatch-covers in the 'tween decks, better ventilation, etc. Since the advent of container vessels, they are referred to as the "break-bulk" vessels, because the cargo is loaded into and broken out of their holds piece by piece. Because of the greater productivity of the container vessel, the number of liners required will greatly decrease.

Ibid., p.3
The Container Ship

Container vessels were discussed in some detail in Chapter 5, under the heading of Specialization and Containerization.

Figure 2 shows a diagram of a container ship and how the containers are stacked.

Barge-Carrying Ships

A variation of the container ship is the barge-carrying ship where instead of carrying containers they carry loaded barges (floating containers). Although the ships themselves are more expensive than a container ship they do not need a purpose-built terminal, though in some cases this has been provided. In fact, in theory, they do not need a port at all. They can simply come to an anchorage, discharge their barges which are towed away by a waiting tug and load the assembled barges.

Variations of the barge-carrying ships are:

(1) the LASH ship (Lighter Aboard Ship). Here, the barges are loaded and discharged through the "prongs" at the stern. The ship carries around 80 barges each capable of holding 400 tons of cargo.
A. Wheelhouse
B. Accommodation:
   - 10 officers, 15 general purpose ratings
C. Engine room (22,400 kw, 26 knots)
D. Lashing store
E. Store

F. Store
G. Upper deep tank
H. Upper fore peak
J. Lower deep tank
K. Lower fore peak tank

L. Deep tank
M. Bow thruster unit, side thrust of 11 tons
N. Passage
O. Upper wing tank ballast
P. Lower wing tank fuel oil

Details:
- Length 244 m
- Breadth 30 m
- Draft 33 ft
- Displacement 41,700 tonnes
- Deadweight 28,450 tonnes
- Gross Tonnage 31,000
- Net Tonnage 22,000
- Capacity 816-40 ft containers, 100 of which can be refrigerated

(Source: Alcoa, 1980)
(2) Seabees. The mother ship is larger than the Lash ship, she carries fewer large barges (38 one thousand ton barges), which are lifted on and off board by huge powerful elevators at the stern.

(3) BACAT (Barge Aboard Catamaran). A small 2,700 dwt barge.

The use of pallets is another method of mechanized cargo-handling developed at the same time as containerization for basically the same purpose, i.e., to reduce the handling costs and the time spent by the ship in port. The basic idea is to pack and attach the cargo onto pallets and then load and stow the cargo by use of fork-lift trucks. The pallet has the advantage over containerization in that it is much cheaper as regards initial capital investment, because conventional vessels can be used. To be used to best advantage purpose-built ships should be used and several have been built and are operating successfully. These ships have large openings in the side so that the fork-lift truck can drive straight on board to stow and unload the cargo in one operation.

Mass-Produced Ships of World War II

Figure 3 has diagrams of the various mass-produced ships of World War II. The purpose of this figure is to underline two basic contemporary facts. First, that the
Mass-produced ships of World War II
principles and advantages of mass production can apply equally to ship building. Second, the long life of the Liberty Ship (there were over 2,800 built during the War and there were still 680 in service in 1967), showed that there are and still is a use for cheap, universally known and understood workhorse class of trampship. As the last of the "Liberties" make their way to the scrap yard, a number of "Liberty replacement" type vessels have been launched. Two of these are particularly worthy of note. (1) S.D. 14.

The S.D. 14 is a British-designed and built Liberty replacement ship which has proved to be the most popular of this type of ship. Whereas the original Liberty Ships had a deadweight capacity of 10,870 tons, the S.D. 14 has a deadweight capacity of 15,150 tons. (2) The Freedom Vessel

This is a Japanese built Liberty replacement type vessel, with a 15,000 deadweight capacity.

The Bulk Carrier is a large single deck ship which carries unpackaged cargo. The cargo is simply poured, tipped or pumped into the holds or tanks of the ship. Of this class of ship the most important is the tanker and, although there are specialist tankers which carry bulk Guinness, wine and chemicals, by far the most important is the oil tanker.
The Oil Tanker

There are over 6,900 oil tankers in the world with a total gross tonnage of over 174 million tons. This is about 38% of the world's total shipping tonnage. More than half the cargo that is carried by sea is oil carried in tankers.

The first steam ship specially designed to carry bulk oil appeared in 1886, and had a deadweight tonnage of 2,300. By the First World War, tankers had grown to 8,000 DWT tons, and to 16,000 tons by the end of the Second World War. In the early fifties the super-tanker of about 30,000 tons was introduced and there was then a steady increase from 100,000 tons in the early 1960s to 200,000 tons (1967) and 350,000 tons (1969). In 1972, the tanker 'Globtik Tokyo' of almost 500,000 tons deadweight was launched. There are now basically two types of tankers - large and small. The large tanker of which the 250,000 ton has become a standard type is used only for the carriage of crude oil. These are known as VLCCs - Very Large Crude Carriers. Tankers above 300,000 dwt are usually referred to as ULCCs - Ultra Large Crude Carriers. The smaller tankers, of which 20,000 dwt to 30,000 dwt is considered a standard size, are referred to as

5 Lloyds Registry of Shipping.
6 By weight, not value.
7 Munro, Merchant Ship Types. Also Alderton, 1980.
product carriers and are used for carrying the refined product from refineries to consumers.

It is interesting to note that although the 200,000 ton tanker can carry ten times the cargo of a 20,000 ton tanker, its dimension, length, breadth, and draft are only about twice as great.

A particular problem with tankers is cleaning the tanks. This is necessary not only to avoid contamination, but to remove all traces of oil which if left would vaporize and produce an explosive vapor-air mixture. Tankers are potentially most dangerous just after they have discharged their cargo. To help overcome this danger, new tankers are now fitted with inert gas systems - IGS. This means that as the cargo is pumped out it is replaced by an inert, oxygen-free gas.

Liquified Gas Carriers

There are about 600 such tankers and they can be divided into two basic types: natural gas (methane) and various petroleum gasses, such as butane. They are carried in liquified form as this reduces the volume about 600 times.

LNG (liquified natural gas) is carried either by reducing the temperature to -100 celsius when it has to be carried in fast well insulated and expensive process, into
methyl alcohol and carrying it in conventional tankers.

LPG (liquified petroleum gas) can be liquified at cooler temperatures than methane and is, also, liquified by pressure or a combination of both.

The Dry Bulk Carrier

Although there have been colliers for centuries carrying bulk coal, the modern concept of bulk cargo being loaded and discharged quickly into single deck dry cargo ships from modern automated terminals dates only from 1957. During 1969-70, they proved to be one of the most lucrative ships to operate, and, by the Greeks especially, they were heavily capitalized on. At the moment bulk carriers represent 19% of the world shipping tonnage.

The popular sizes are 20,000 DWT - the largest size that can use the St Lawrence Seaway (owing to draft restrictions) and the Panamax class, which is the largest size that can use the Panama Canal. This is about 60,000 DWT as the limiting load width is just over 32 meters.
Combination Carriers

One of the economic problems of the tankers and bulk ships is that they must inevitably spend half their working lives in ballast and, therefore, not earning freight. To overcome this problem the combination vessel has been developed.

The O/O (ore and oil) vessel is more or less a tanker on which a hatch is provided on top of the central tank. It could, for example, load ore in Brazil for Japan, then ballast to Indonesia, where it could load oil for the U.S., reducing the time spent in ballast. Ore and oil are never carried simultaneously.

The OBO (ore, bulk, or oil) ship is some 15-20 per cent more expensive to build than a conventional bulk carrier and is fundamentally a bulk carrier structurally reinforced to handle oil and high density cargoes.
APPENDIX 2

THE CHARTER PARTY

Vessels are "chartered" in the tramp market. The formal contract drawn up between the shipowner and the charterer is known as the "charter party", perhaps from the Latin CHARTA PARTITA (divided document). The costs involved in chartering are immense (around US $5,000 a day, depending on the size of vessel and the type of charter) and the charter party is, thus, of great importance. In Roman times the contract was written out in duplicate on a piece of parchment. This was then torn in two and the charterer and the shipowner each had a copy of the contract. If there were disputes the two parts had to be matched together to test if they were the original genuine documents. ¹

There are three ways in which a vessel may be chartered. First, the vessel can be chartered just as a hull. The charterer then supplies the crew and operates the ship in fact as if he were the shipowner. Such a charter is referred to as a bareboat or demise charter. Second, the vessel can be chartered as a functioning operating unit for a period of time. The charterer pays the hire money and the bunkers, and the ship trades where the charterer wishes.

¹ That this is a long standing method of operating ships can be appreciated by the fact that the earliest written voyage charter party is found in the British Museum, dated A.D 236. It contains the basic elements of a modern charter party.
This is the time charter. Third, the ship can be chartered to carry a stated quantity of cargo between A and B. This is known as a voyage charter.

The Demise or Bareboat Charter

As with all these types of charter the conditions and responsibilities can vary to suit the needs of the two interested parties - in fact, more so, for until BIMCO produced the Demise charter party forms Barecon A and Barecon B in the early seventies, there were no standard demise charter party forms for sale as there has been for time and voyage parties since 1890. This means that most demise charter parties are negotiated afresh each time and, therefore, the contents of such contracts might vary considerably. Where it is needed, for instance, as virtually a "hire purchase" contract between a shipowner and a financier it will be drawn up before the ship is built and contain considerable technical detail as to how the vessel is to be constructed. In this particular example the ship will probably also become the charterers property at the end of the period.

2 the Baltic and International Maritime Conference. Founded in 1905 under the Baltic and White Sea Conference by a group of shipowners from various nations interested in the Coal and Timber trades.
Basically, the shipowner's only costs are depreciation, the survey to establish the condition of the ship before the charter, and the fees of the broker (brokerage).

The charterer is responsible for all the daily running costs, the bunkers, and all the port costs (and canal dues, if there are any). He also has to pay for the survey before handing the vessel back to her owners.

This charter is usually utilized for long periods, from about five years to perhaps the whole life of the ship. It was used quite extensively after the Second World War when shipowners with depleted fleets were anxious to fill the gaps as quickly as possible. It is also used now by financiers who wish to invest in shipping but do not have the desire or expertise to become practising shipowners.

A variation on this charter includes a management clause whereby the shipowner, for a fee, crews the ship and generally attends to the ship's husbandry, leaving the charterer free simply to operate the ship.

The Time Charter

Time charters can be for any period of time, ranging from a few weeks (short time charters) to fifteen years (long time charters). The hire charge may be expressed as cost per day or cost per month per ton deadweight.
Costs for the shipowner's and charterer's account are divided accordingly:  

<table>
<thead>
<tr>
<th>Shipowner's Account</th>
<th>Charterer's Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation</td>
<td>Hire money</td>
</tr>
<tr>
<td>Insurance</td>
<td>Bunkers</td>
</tr>
<tr>
<td>Survey (if required)</td>
<td>Port changes</td>
</tr>
<tr>
<td>Overheads</td>
<td>Canal Dues</td>
</tr>
<tr>
<td>Crew's Wages and victualling</td>
<td>Stevedoring</td>
</tr>
<tr>
<td>Running Costs</td>
<td>Ballast</td>
</tr>
<tr>
<td>Some cargo claims</td>
<td>Some cargo claims</td>
</tr>
<tr>
<td>Brokerage</td>
<td>Water</td>
</tr>
</tbody>
</table>

It is obvious that the vessel's speed and bunker consumption must be accurately disclosed by the shipowner. The charterer must, however, realize that between annual drydocking the vessel's speed can be reduced one or two knots, depending on how the growth of the ship's hull increases the "skin friction".

Who pays for the crews overtime and what happens if there are any delays such as the ship breaking down are points that vary from charter to charter. The shipowner may also put trading limits on where the vessel can operate—namely, operating only within "safe ports". For instance he may not wish to go to Cuba and thus risk its being black-listed by the U.S.A where he may wish to offer it for char-

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3 Final costs will not be a summation of this account, since it involves double-counting (i.e., running costs include victualling and crew's wages).
ter in the future. As a Greek vessel, the shipowner might prefer to avoid Turkish ports, and, especially Cyprus. Complications may also arise if the vessel is in mid-voyage when the charter expires.

The Voyage Charter

With the voyage charter the shipowner pays for virtually everything except perhaps the loading and discharging costs. Parties have to agree on laytime (cargo-handling time).

The charterer pays the freight. This is usually assessed at so much per ton of cargo carried or alternatively as a "lump sum" for the voyage. The charterer also usually has to pay for any delays in the loading or discharging of the ship. This is known as "Demurrage". On the other hand, if he can turn the ship around faster than agreed the shipowner usually shares the financial gain with him. This is referred to as "Despatch". The rate for despatch is usually half that of demurrage.

Tankers frequently charter for a series of consecutive voyages or perhaps a series of consecutive voyages followed by a period on time charter. Oil companies may also charter from a tanker owner, not a specifically named tanker but a certain size or class of tanker (i.e. VLCC or ULCC) to do so many voyages. This may be of some financial benefit to the tanker owner who can take advantage of the various positions
of his ships. This type of charter is referred to as a "contract of affreightment". Such "contract" arrangements can be used for all dry bulk cargoes and they form an important element in coastal shippings employment.
## A CHRONOLOGICAL TABLE OF GREEK HISTORY,
INCORPORATING THE CRISIS OF GREEK SHIPPING

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000 B.C</td>
<td>Beginning of &quot;Minoan&quot; civilization in Crete.</td>
</tr>
<tr>
<td>2200-1400 B.C</td>
<td>Crete, with Eteocretans under the Minoans,</td>
</tr>
<tr>
<td></td>
<td>leading power in the Aegean. Strong Cretan influence in Greece.</td>
</tr>
<tr>
<td>2000 B.C</td>
<td>First Greek speaking people, the Achaeans, enter Greece.</td>
</tr>
<tr>
<td>1600-1200 B.C</td>
<td>Mycenaean civilization.</td>
</tr>
<tr>
<td></td>
<td>Mythical &quot;Argo&quot; built.</td>
</tr>
<tr>
<td>1100-1000 B.C</td>
<td>Dorian invasion of Greece.</td>
</tr>
<tr>
<td>750-700 B.C</td>
<td>Homer composes the Illiad and the Odyssey. Mythical Trojan War -</td>
</tr>
<tr>
<td></td>
<td>First Greek fleet.</td>
</tr>
<tr>
<td>776 B.C</td>
<td>Traditional date of the first Olympiad.</td>
</tr>
<tr>
<td>735-648 B.C</td>
<td>Colonization of Southern Italy and Sicily. Extensive use of fleet.</td>
</tr>
<tr>
<td>508-7 B.</td>
<td>Beginning of reforms of Kleisthenes.</td>
</tr>
<tr>
<td>490 B.C</td>
<td>Expedition of the Persians under Datis against Greece. Battle of</td>
</tr>
<tr>
<td></td>
<td>Marathon.</td>
</tr>
<tr>
<td>480 B.C</td>
<td>Expedition of the Persians under Xerxes against Greece. Great sea</td>
</tr>
<tr>
<td></td>
<td>battle of Salamis.</td>
</tr>
<tr>
<td>479 B.C</td>
<td>Mardonius in Greece.</td>
</tr>
<tr>
<td></td>
<td>Battle of Plataea.</td>
</tr>
<tr>
<td></td>
<td>Battle of Mycale.</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>477 B.C</td>
<td>Foundation of Confederacy of Delos.</td>
</tr>
<tr>
<td>461-429 B.C</td>
<td>Athenian Empire. The age of Pericles.</td>
</tr>
<tr>
<td>450 B.C</td>
<td>Athens reaches its peak of power, consolidated by strong fleet.</td>
</tr>
<tr>
<td>447 B.C</td>
<td>Parthenon begun.</td>
</tr>
<tr>
<td>431-404 B.C</td>
<td>Peloponnesian War.</td>
</tr>
<tr>
<td>404-371 B.C</td>
<td>Spartan supremacy, maintained by naval fleet.</td>
</tr>
<tr>
<td>377 B.C</td>
<td>Foundation of Second Athenian Confederacy.</td>
</tr>
<tr>
<td>371 B.C</td>
<td>Battle of Leuctra.</td>
</tr>
<tr>
<td>371-362 B.C</td>
<td>The Hegemony of Thebes.</td>
</tr>
<tr>
<td>354-336 B.C</td>
<td>Philip II of Macedon. The rise of Macedonia.</td>
</tr>
<tr>
<td>336-323 B.C</td>
<td>Alexander the Great.</td>
</tr>
<tr>
<td>323 B.C</td>
<td>Death of Alexander.</td>
</tr>
<tr>
<td>280 B.C</td>
<td>Foundation of Archaean Confederacy.</td>
</tr>
<tr>
<td>222 B.C</td>
<td>Battle of Sellasia.</td>
</tr>
<tr>
<td>212 B.C</td>
<td>Syracuse surrenders to the Romans.</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>146 B.C</td>
<td>FIRST CRISIS (ROMAN RULE) Destruction of the Corinth.</td>
</tr>
<tr>
<td></td>
<td>Roman conquest of Greece.</td>
</tr>
<tr>
<td>324 A.D</td>
<td>Accession of Constantin I.</td>
</tr>
<tr>
<td>330 A.D</td>
<td>Foundation of Constantinople.</td>
</tr>
<tr>
<td>395 A.D</td>
<td>Theodosius' division of the Roman Empire into East and West.</td>
</tr>
<tr>
<td>476 A.D</td>
<td>Final collapse of the Western part of the Roman Empire.</td>
</tr>
<tr>
<td>554 A.D</td>
<td>Justinian restores the Roman Empire.</td>
</tr>
<tr>
<td>636 A.D</td>
<td>Arab conquest of Syria.</td>
</tr>
<tr>
<td>826 A.D</td>
<td>Arab conquest of Crete.</td>
</tr>
<tr>
<td>904 A.D</td>
<td>Capture of Thessalonike by the Arabs.</td>
</tr>
<tr>
<td>1185 A.D</td>
<td>Capture of Thessalonike by the Normans.</td>
</tr>
<tr>
<td>1348 A.D</td>
<td>Foundation of the Despotate of Morea.</td>
</tr>
<tr>
<td>1402 A.D</td>
<td>Battle of Ancara.</td>
</tr>
<tr>
<td>1430 A.D</td>
<td>SECOND CRISIS (TURKISH RULE) Surrender of Thessalonike to the Turks.</td>
</tr>
<tr>
<td>1453 A.D</td>
<td>Fall of Constantinople.</td>
</tr>
<tr>
<td>1770 A.D</td>
<td>First rising of the Greeks in the Peloponnesus.</td>
</tr>
<tr>
<td>1821 A.D</td>
<td>THIRD CRISIS (GREEK WAR OF INDEPENDENCE) Battle of Alamana</td>
</tr>
</tbody>
</table>
Battle of Gravia
First National Assembly at Epidaurus

1822
First Greek constitution.
Battle of Dervenakia.
Defeat of Dramalis.

1823
Second National Assembly at Astros.

1826
Third National Assembly at Epidaurus.

1827
Formation of Triple Alliance between Russia, Great Britain and France.
The battle of Navarino.

1829
Battle of Petra, last engagement with the Turks.

1833
Arrival of Otho, first King of Greece, at Nauplia.

1843
The revolution of the 3rd of September.
Otho yields to the constitutional regime.

1862
Abdication of Otho.

1863
Accession of King George I to the throne of Greece.
Great Britain cedes the Ionian Islands to Greece.

1864
The Constitution of 1864.

1897
Greco-Turkish War. Defeat of the Greeks.

Circa 1900
FOURTH CRISIS (ADVENT OF STEAM)
Transformation of the Greek fleet from sail to steam.

1904-1908
The Macedonian struggle.
First Balkan War.

Second Balkan War.

FIFTH CRISIS
First World War.
Shipping recession.

Establishment of Republic of Greece.

Restoration of King George II.

SIXTH CRISIS
Second World War.
Occupation of Greece by the Axis.

Athens Agreement. Treaty of Association of Greece and the EEC.

Military Junta and dictatorship.

Accession to EEC.

(SEVENTH CRISIS)


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#5 Karageorgas, President, UGS.
#6 Economakis, G. E., HMC.
#7 Delacouras, G. D., HMC, European, Greek Parliament.
#8 Papistas, E., Manager, Director, Hellenic Seaways.
#9 Panteledis, E., Bank of Greece.
#10 Pierides, Cypriot Owner.
#11 Glass, D., Editor, NAFTILIAKI.
#12 Vassiliou, J., Financier.
#13 Lanaras, G., Shipowner.
#14 Angiolakis, I., Shipowner.
#15 Shipbrokers at Piraeus Chartering Co.
#16 Port captains at Universal Glow Co.
#17 Fynan, A., Shipbroker.
#18 McHugo, B. E., Banker and Financier.


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