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PART B - ECONOMIC INDUSTRY REPORTS

Report 4

Container Charter Rates -
A Consideration of Pricing Policy
Howe Robinson Shipbrokers
March 2002

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Containership Charter Rates
- A consideration of pricing policy

(25th March 2002)

The report that follows has been compiled by Howe Robinson Shipbrokers of London. A more detailed explanation of the company's association with the containership sector can be found in Appendix A.

Objective

The objective of this report to consider the dynamics of the containership charter market.

Introduction

The containership charter market has often been described as 'immature'. The underlying reasons for such a description stem from the apparent inelasticity in demand that prevailed in the early and mid 1990s. Of late, however, the market has become more responsive to movements in supply/demand and a more mature cyclical pattern is emerging. Such a development is in common with the boom and bust cycles that typify other shipping sectors.

Two Markets

The containership sector consists of two quite different markets:

- The Freight Market. This is the 'primary market' and reflects the container freight rates as agreed between liner companies and shippers.

- The Charter Market. This is the secondary or 'derived' market that is made up of charterers and owners.

The relationship between the primary and derived markets is complex and can be determined by an array of inter relational factors, both global and regional. Although strong direct correlations are not always clear, it is apparent that at times of over supply both markets share the burden. A comparison of freight rates on the major east/west trades and charter rates is shown in Appendix B. It should, however, be noted that the relationship is not always direct. In some trades it can be common for freight rates to be going down and charter rates to be going up or visa versa (for more information regarding freight rates see the paper 'Container Freight Rates -A consideration of Liner companies pricing policy'.

Ownership of Containerships

Owners can either be independent specialists in the provision of ships for hire or liner owners who tend to deploy ships into their own services, but who might chose to hire ships to other parties.

There are currently around 3500 containerships deployed in the world's container trades. These include approximately 2800 cellular containerships and 700 container 'friendly' bulkers and tweendeckers that predominantly operate in the container trades.

Of the 3500 ships trading, around 1400 are owned by independent operators who are not directly involved in running liner trades. The balance are owned by the liner companies themselves and, although such ships can be chartered out, they tend to be deployed into their fully owned or consortia services.

Most lines tend to have a mix of owned or chartered ships in order for them to enjoy the advantages of controlling a mixed fleet. The percentage of owned to chartered vessels varies from line to line, but the average is around 50:50. The advantages of owning and chartering are various, but, in short, owning provides a hedge against movements in the charter market and chartering allows the flexibility to redeliver tonnage at the end of the charter period depending on trade volumes.

There are a number of larger containerships that are a result of 'finance driven' arrangements. In such circumstances ships will be contracted by independent owners on the strength of a guaranteed long term period charter of in excess of five years. The charter rates agreed will not necessarily reflect the prevailing spot market, but will offer the owners a guaranteed internal rate of return over the project life. The advantage to the owners is the delivery of new vessels with no capital outlay and the flexibility to redeliver the ship 5 to 10 years hence.

Net of 'finance' driven deals, the containership charter market was worth around USD 2.8 billion in 2001. This is around half of its 2000 value.

The Charter Market – A historical review

Howe Robinson monitors the containership charter market on a weekly basis. The weekly Howe Robinson Containership Charter Index is compiled every Wednesday and now comprises of 12 different types and size of containerships (see Appendix C for a more detailed description). It is regarded as the industry standard and is reported in many national and international trade publications.

A graph of the index showing monthly averages is shown in Appendix D from 1993. The graph clearly shows the stable market that prevailed between 1993 and 1995. This was a period of market immaturity when significant increase in the size of the fleet was clearly

offset by growth in demand. Indeed, whilst the fleet grew at an annual average rate of 11%, growth in containerisation was in the region of 10.7% per year. Such a demand side growth rate would be quite staggering in most other sectors of the industry, and it resulted in a sentiment that empowered subsequent over building.

Fuelled by the strength in demand and an abundance of finance, owners saturated the market with containership charter market capacity. Independent German owners, who enjoyed the benefits of the preferential KG tax scheme were the largest single group of investors, but it was not long before expedient over ordering was to take its toll.

The market was to fall from an index value of 1209 points to 595 points over the next three years as the fleet continued to expand by a further 11 percent per annum. This time, however, demand side growth could not keep pace and deliveries lagged by about 2% per annum. Contrary to the comments of many observers, Howe Robinson do not support the view that the Asian crisis, which started in September 1997, was a major factor in undermining charter rates at the time. Instead there is good reason to believe that the strong growth in Far Eastern Exports actually underpinned containership demand at that time.

Consequently the August 1995 to March 1999 fall can almost entirely be attributed to supply outpacing demand. If blame can be apportioned it must lie at the feet of the German owners and their preferential taxation system.

By 1997/8, the downward spiral was taking its toll on owner's enthusiasm to order and despite low newbuilding prices the order book fell away. At the same time scapping increased as owners finally took the decision to consign older and less employable ships to the beaches. In 1999 worldwide economic health took a turn for the better and the relationship between supply and demand swung in owner's favour. The result was a fast recovery that out paced expectations and by the summer of 2000 the index had recovered to 953 points. Although considerably below the high of 1995, profitability was enhanced by greater efficiencies, currency and interest rate considerations and lower newbuilding prices (see Appendix E).

As is so very often the case in shipping the good times were short lived. In 1999, newbuilding prices had dropped significantly and many lines acknowledged the cost advantages of building at levels well below that of their competitors who contracted in the mid 1990s. At the same time they embraced the idea of ordering substantially bigger ships for deployment on the Far East and Transpacific trades. The sheer scale of ordering was frenzied and lines, consortia and conferences adopted a lemming like approach so as not to find themselves working from the disadvantaged position of higher cost base. The result was an unprecedented orderbook in terms of capacity and profile. Suddenly in excess of 50% of the orderbook was just for post panamax vessels (see Appendix F). In 1999 and early 2000 a currency induced reduction in German and Polish yard prices also led to a surge in ordering of 2500 teu ships. These ships were not ordered for their trading potential but, moreover, were the minimum size that could obtain 5 year charters and, therefore, offer the security to satisfy many of the bank's loan requirements. All this was

done with maximum demand side growth potential in mind. This was not, however, to be the case.

In September 2000 the thinkable happened – after nearly a decade of significant growth, the US economy started to meltdown. Almost immediately demand for containership capacity began to wane as demand for consumer goods began to soften. Suddenly in 2001 lines and owners were faced with a demand side growth falling 6.5% behind growth in supply. This was by far the largest short fall that had ever been experienced and inevitably freight rates and charter rates plummeted. Worse still, most of the capacity entering service had to be deployed into the east/west trades showing the lowest growth rates.

The consequence was displacement of charter ships. With too much capacity in the system, the first losers were to be the lines as freight rates started to tumble as competition to secure cargo intensified. Before long, however, it was the turn of owners to share some of the pain as charter ships were redelivered to release surplus tonnage. The effect of this displacement process cascaded downwards as 2000-3000 teu ships were forced to compete with the 1000-2000 teu sector. The result was that all sizes felt the impact of post panamax deliveries, although the effect lessened the smaller the ship. Worst hit was the 2500 to 3500 teu, which saw rates drop by 70% in nine months (see Appendix G). By January 2002 the Howe Robinson Index had hit an all time low of 450 points.

Once again the market had manufactured its own undoing by over ordering. This time, however, the blame lay with the liner companies themselves.

Supply / Demand and Pricing

There is clearly a strong relationship between the supply/demand balance and the Howe Robinson Containership Index. Regression analysis suggests this relationship may be as strong as 90%.

The graph shown in Appendix H illustrates variances between supply/demand compared to the index. Such a strong relationship then allows a view to be taken of future market movement given predefined assumptions.

In supply terms the fleet (net of scrapping) is anticipated to expand by 10-11% in 2002 and 6.5-7.5% in 2003. There may be a degree of slippage and some cancellation, but this is unlikely to have a significant effect on the overall picture. There are currently limited opportunities to place further orders as many yards (especially for large vessels) are full and banks are reluctant to extend credit facilities for containerships. The position in 2004 is harder to gauge, but ordering has fallen from a average of 65 ships per quarter to just 7 ships per quarter over the last nine months. This points to a marked slowdown in containership deliveries in 2004 and 2005. The only threat to this is if yards drop prices

in an attempt to lure owners back into the newbuilding market. Our own view is that the fleet will expand by 5-8% in each of these years.

Economic indications now point to a recovery in the US. Although timing is still being debated, there is a common view that things will be well on the mend by the end of 2002. If this is the case, world GDP could recover to its long term average of 2.8-3.2% in 2003/4/5. Regression analysis then suggests that growth in containerisation could be as high as 9/10% over that period. Thus the supply/demand equation will once again fall in favour of owners and charter rates should increase for the next three years. On this basis the market should peak around 2005, leading to another 5 year peak to peak cycle.

Conclusion

Analysis of the containership charter market indicates that hire is determined by the relationship between supply of capacity and demand for containerised movements. There is little to indicate that any form of 'cost' pricing is applied under normal market conditions. During the first three months of 2002 charter hire levels for most containerships were not sufficient to cover the operating and finance costs of the vessel.

That said, there is a point when owners will decommission vessels by scrapping or laying up. In the case of older charter ships, scrapping is likely to occur when they become unfixable and the cost of idling/maintenance becomes prohibitive. Newer charter vessels, on the other hand, are more likely to be laid up when daily charter earnings fall below the fixed operating costs of the vessel (i.e. crew, provisions, insurance, lube oils, drydocking, maintenance, registration).

The decision for line owned vessels is very different and will be determined by the line's objective to limit capacity in order to protect freight rates.

The containership charter market has undergone a difficult few years as over ordering and the slowdown in the world economy has taken its toll. Looking further forward a reduction in building and economic improvements suggest a recovery that will lead to a second five year 'peak to peak' cycle. The market appears to have reached maturity.

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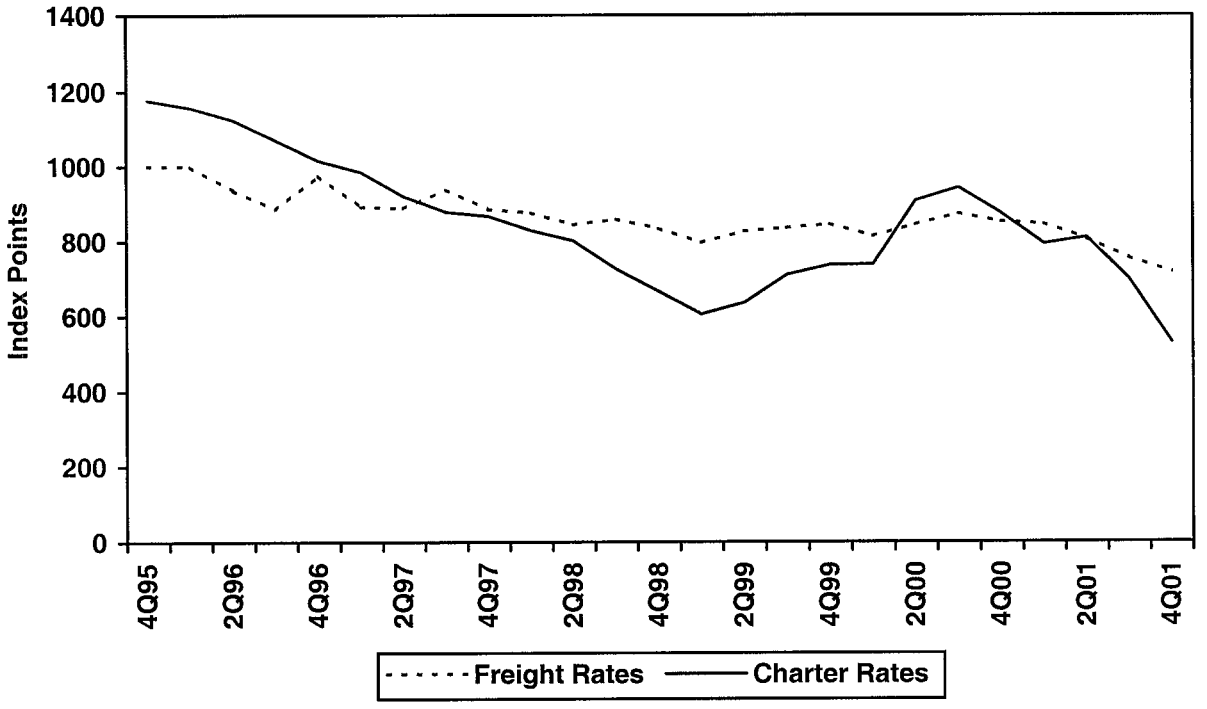
Appendix A

Howe Robinson Shipbrokers

Howe Robinson Shipbrokers is one of the largest dry cargo brokers in the world. We employ 60 staff in London, Hong Kong and Tokyo. Specialist teams concentrate on various market sectors. During the last 16 years Howe Robinson has built the largest competitive containership shipping broking team in the world. This team is divided into 5 departments. The containership chartering department comprises of 9 full time shipbrokers, which at any one time will have between 100 and 150 ships on charter. Our containership sale and purchase department employs 4 brokers, who on average would conclude 20-30 sales per year. The containership newbuilding division employs 3 brokers and has contracted 24 ships in the last 2 years. All three divisions are supported by 3 post fixture staff. Finally, our containership research department employs one full time and one part time analyst. The role of this department is to support the three broking teams by means of statistical and analytical back up. The department has established itself as a leading commentator in the containership market and is often quoted in the trade and national press. Besides in-house support, Howe Robinson Research is regularly engaged in a variety of consultancy projects on behalf of banks, financiers, solicitors, shipping lines and other industry specialists.

Appendix B

Freight Rate v. Charter Rates Indices



N.b The underlying information for freight rates is sourced from Containerisation International. The rates are door to door and therefore include inland transportation, terminal handling charges and seaborne carriage.

Appendix C

Howe Robinson Container Index

From its infancy the Howe Robinson Containership Index was established as a tool for understanding the complex relationships that existed between supply and demand in the container charter market. During the course of the 1990's attempts to correlate pricing theory in the primary sector (freight rates) with pricing theory in the derived sector (charter rates) generally floundered as there was no comprehensive way of tracking movements in the market.

First published in Lloyds List in June 1997 the index follows the movements of time charter rates (gross of commission) for six month periods with regional variations averaged and initially comprised of seven vessel types that were considered as representative of the more active tonnage in the charter market. Once identified the various vessel types were weighted to take into account the number of fixtures by category over the previous 3 years, average charter hire rates, percentage of the world fleet available for charter and the number of new buildings.

July 1997

1/ 4500 dwt/250 teu geared 12 kn	15%
2/ 9500 dwt/580 teu geared 15 kn	13%
3/ 6500 dwt/510 teu gearless 15 kn	13%
4/ 12000 dwt/1000 teu geared 17 kn	25%
5/ 24000 dwt/1700 teu geared 19 kn	11%
6/ 25000 dwt/1600 teu gearless 18 kn	11%
7/ 35000 dwt/2900 teu gearless 22 kn	12%

In early May 1998 an eighth vessels type (2050 teu gearless) was incorporated into the index to reflect what was considered to be an increasingly important, but volatile market sector.

May 1998

1/ 4500 dwt/250 teu geared 12 kn	15%
2/ 9500 dwt/580 teu geared 15 kn	13%
3/ 6500 dwt/510 teu gearless 15 kn	13%
4/ 12000 dwt/1000 teu geared 17 kn	25%
5/ 24000 dwt/1700 teu geared 19 kn	11%
6/ 25000 dwt/1600 teu gearless 18 kn	11%
7/ 35000 dwt/2900 teu gearless 22 kn	6%
8/ 30000 dwt/2050 teu gearless 20 kn	6%

As a result of the changing nature of the charter market the weighting was adjusted in April 2000 to reflect the increasing importance of larger vessels.

April 2000

1/ 4500 dwt/250 teu geared 12 kn	8%
2/ 9500 dwt/580 teu geared 15 kn	8%
3/ 6500 dwt/510 teu gearless 15 kn	8%
4/ 12000 dwt/1000 teu geared 17 kn	16%
5/ 24000 dwt/1700 teu geared 19 kn	22%
6/ 25000 dwt/1600 teu gearless 18 kn	12%
7/ 35000 dwt/2900 teu gearless 22 kn	16%
8/ 30000 dwt/2050 teu gearless 20 kn	10%

In January 2002 a further 4 ships were added and the weightings adjusted accordingly:

January 2002

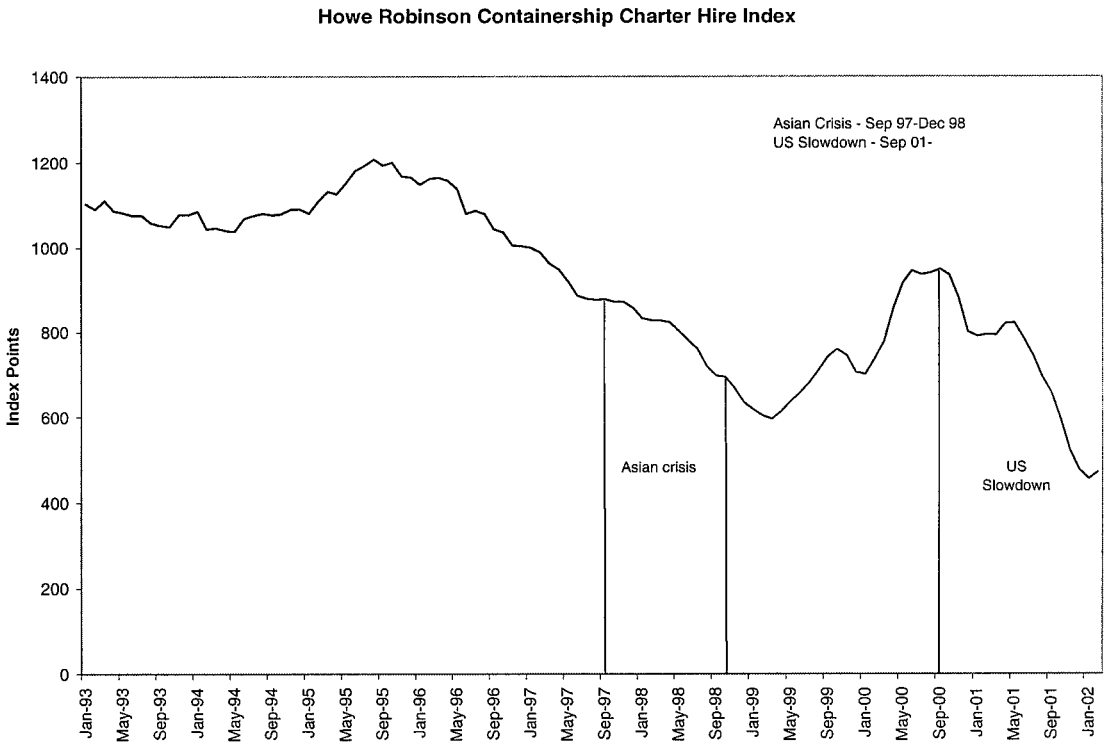
1/ 5500 dwt/ 520 teu Geared 15.5 kn	7%
2/ 4500 dwt/250 teu Geared 12kn	2%
3/ 9500 dwt/580 teu Geared 15kn	6%
4/ 6500 dwt/510 teu Gearless 15kn	5%
5/ 12000 dwt/1000 teu Geared 17kn	11%
6/ 18500 dwt/ 1100 teu Geared 18.5 kn	9%
7/ 24000 dwt/1700 teu Geared 19kn	17%
8// 25000 dwt/1600 teu Gearless 18kn	13%
9/ 35000 dwt/2900 teu Gearless 22kn	9%
10/ 30000 dwt/2050 teu Gearless 20kn	8%
11/ 34000 dwt/ 2500 teu Geared 22 kn	8%
12/ 45000 dwt/ 3500 teu Gearless 22.5 kn	5%

The index itself is calculated every Wednesday and is based on fixtures reported over the proceeding week. The mathematical model is a simple calculation that tracks the variance in average rates from a standard 1000 points, which was set in January 1997.

The basis of the calculation is to divide the weighting by the individual rates prevailing when the index was set to 1000 (i.e. January 1997) and multiply by todays rates. The sum of these calculations, when multiplied by 1000, then equals the index. This is the same formula as used to calculate BPI, BFI and BHI.

The index is now published in Lloyds List, Tradewinds, Lloyds Shipping Economist, Containerization International and The Baltic Exchange.

Appendix D


Howe Robinson Containership Charter Hire Index
Index Points
1400
1200
1000
800
600
400
200
0
Asian Crisis - Sep 97-Dec 98
US Slowdown - Sep 01-
Asian crisis
US
Slowdown
Jan-93
May-93
Sep-93
Jan-94
May-94
Sep-94
Jan-95
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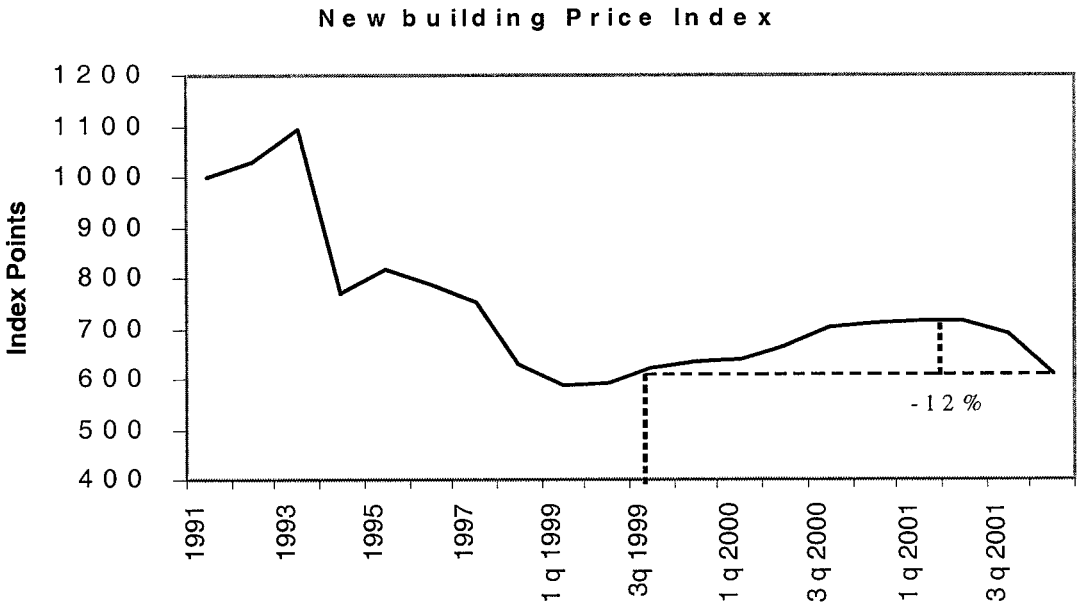
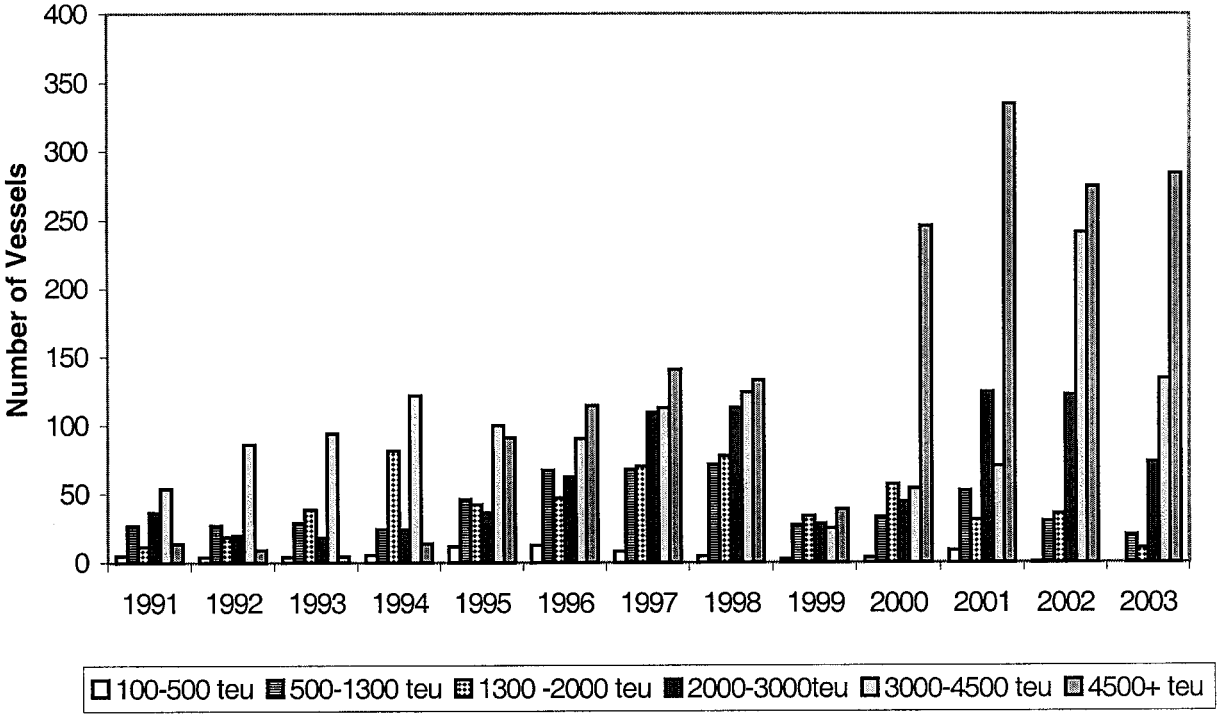
Appendix E



Source: Howe Robinson Research

Appendix F

Containership Delivery Profile Since 1991



Appendix G

Howe Robinson Container Index v. Supply/Demand Balance