

***Summary of Testimony of***  
***Mark H. Kadar, Vice President, Mercer Management Consulting, Inc.***

Mark H. Kadar, a Vice President with Mercer Management Consulting, Inc. (Mercer), has over 15 years of experience working in and consulting to the transportation industry. He presently heads Mercer's liner shipping and port consulting practices. The purpose of Mr. Kadar's testimony is to provide the Committee with Mercer's perspective on the characteristics and economics of the ocean liner shipping industry, together with the market dynamics of the transpacific trade.

The international ocean carrier industry is highly fragmented and intensely competitive. This has caused the industry to incur poor financial returns, despite ongoing volume growth and extensive cost-reduction efforts. Operating margins are slim and, in general, carriers return less value to shareholders than is typical for other transportation modes. The key levers available to carriers to improve financial performance are vessel utilization and rate levels. Vessel utilization (amount of vessel capacity filled) is a function of import and export demand. When demand weakens on a specific trade lane (for example, U.S. exports to Asia), carriers must reduce their rates to compete effectively for less cargo. Conversely, when demand rises sharply, carriers can charge more as capacity becomes scarce.

One of the problems impacting carriers of late is the severe imbalance of trade on several trade lanes, including the transpacific (North America-Asia). U.S. imports from Asia greatly exceed U.S. exports to the region. In fact, the drop in U.S. exports to Asia has become so severe that *overall* utilization rates – and therefore roundtrip revenues – have fallen. To make up for the loss of revenues on U.S. export trade, carriers need to raise rates on U.S. import trade.

Because rates on U.S. exports will continue to fall, even with the rate increase for imports, transpacific revenues (per slot of capacity) will still be less in 1999 than they were in 1995. And, much of the proposed rate increase will be absorbed by the cost of moving empty containers back to Asia.

Furthermore, ocean shipping is only one component of total shipment cost, and transpacific rates for imports are typically less than 5 percent of declared cargo value. Thus, the rate increase will add only 1-2 percent to cargo value and have even less of an impact on the retail cost of goods to U.S. consumers.

Market fragmentation, undifferentiated services, declining freight rates, and poor financial performance have created a "vicious circle" for liner shipping companies. The liner shipping industry's economic performance is typical of an industry in which intense competition has kept rates low – not one with unbridled pricing power. In order to survive in this competitive environment and invest in service improvements to meet the needs of its customers, net revenues must **cover long-term costs**.

## **I. Statement of Mark H. Kadar, Vice President, Mercer Management Consulting, Inc.**

This statement has been prepared by Mark H. Kadar, a Vice President with Mercer Management Consulting, Inc. (Mercer). I have over 15 years of experience working in and consulting to the transportation industry and presently head Mercer's liner shipping and port consulting practices. My experience includes leading major strategy, organizational design, and operational improvement projects for liner shipping companies, major railroads, logistics providers, and ports in the United States and Europe. I also write and speak extensively on strategic, economic, and regulatory trends impacting the transportation and logistics industries. My individual qualifications and experience are set forth in Annex A. Selected qualifications and experience for Mercer are set forth in Annex B.

My purpose in preparing this statement is to provide the Committee with Mercer's perspective on the characteristics and economics of the ocean liner shipping industry, together with the market dynamics of the transpacific trade that are driving the proposed transpacific eastbound rate increase. I would like to make the following points before the Committee today. In making these points, I will refer to the supporting visual materials in Section II of the document before you.

### **A. The ocean liner industry: Characteristics and economics**

- Worldwide container trade is an enormous enterprise, involving more than 500 carriers, 2,500 vessels and 350 ports. More than 24 million FEUs (forty-foot container equivalents) were carried by liner companies in 1998.
  - Half of all container trade is handled on four trade lanes: the transpacific (North America-Asia), the transatlantic (North America-Europe), Europe-Asia, and Intra-Asia. Other major trade lanes include U.S.-South America (east and west coast), Europe-South America, and trades to Australia/New Zealand.
  - Transpacific trade is the largest segment of global containerized ocean freight (18 percent of total) and will grow strongly over the near term.
  - Ocean carriage also accounts for about one-half of all U.S.-international trade.
- The ocean carrier industry is highly fragmented: None of the top 10 international carriers has more than a 6 percent share of world vessel capacity. Even the top 20 carriers account for only about half of world vessel capacity.
- Liner shipping is essentially a commodity business. The intensely competitive nature of the liner shipping business has caused the industry to incur poor financial returns, despite ongoing volume growth and extensive cost-reduction efforts.
  - Ocean carriers have very slim operating margins compared to other transportation sectors.

- Although direct comparisons are difficult, due to the large number of international players as well as players with substantial other businesses, in general, ocean carriers have returned less value to shareholders than other transportation modes and have underperformed U.S. equity benchmarks such as the S&P 500 and DJTA (Dow Jones Transportation Average).
- NVOCCs (non-vessel operating common carriers) buy slot capacity on a wholesale basis and also compete with carriers for retail customers. The number of NVOCCs in the United States has grown by 35 percent over the past 5 years, and there are now an estimated 2,600 NVOCCs registered with the Federal Maritime Commission.
- Roundtrip economics are critical to ocean carriers. Carriers operate on set roundtrip schedules and have largely fixed operating costs. Therefore, vessel utilization and rate levels drive financial performance.
  - Ideally, loaded movements should be balanced in each direction (e.g., eastbound and westbound). If movements are not balanced, carriers must move empty containers back to meet customer demand.
  - One of the problems impacting carriers of late is the severe imbalance of trade on the transpacific and Europe-Asia trade lanes. Due in part to the impact of the Asian financial crisis, demand for Asian imports from North America and Europe is much higher than exports to Asia. In the United States, this trend has been exacerbated by the relative strength of the U.S. economy.
- If carriers are to invest in service improvements and new vessel, container, and terminal capacity, roundtrip revenues must yield an adequate margin over roundtrip costs.
- Capital costs for the liner industry are relatively high and many players already do not earn their cost of capital.
- Transoceanic container vessels are expensive assets. Large vessels cost \$60 million to \$80 million to build and \$40,000-\$60,000 per day to operate.
- Annual capital expenditures for large carriers can range from \$350 million to more than \$1 billion.
- The requirement for significant capital expenditures, coupled with carriers' inability to earn their cost of capital, poses a significant long-term threat to the health of the industry.
- Ocean carrier freight rates are ultimately driven by supply and demand – not collective ratemaking.
- Rates rise when demand (cargo) equals or exceeds supply (vessel capacity) and fall when supply exceeds demand. For example, in the Europe-Asia trade, rates declined steadily from 1991 to 1997 as demand for cargo space fell (see page II-12).

- Rates can be set from port to port or between inland origin and inland destination. Most traffic moves under negotiated contract rates. Large shippers negotiate for lower rates in return for higher volumes.
- The setting of ocean rates is complex. Rates are dependent on the value of the commodities shipped and, depending on customer requirements, can include inland transportation, currency and fuel adjustment factors, and a wide range of specialized services.
- While leading ocean carriers are trying to differentiate themselves through improved service, customers still select ocean carriers primarily based on price and view switching costs to be minimal.

#### **B. The transpacific trade: Market dynamics**

- The transpacific trade is also large and fragmented. All of the ten largest ocean carriers compete in the transpacific trade, as well as 17 other lines. However, even the largest carrier has no more than a 13 percent market share and the smallest have less than 0.5 percent market share.
- Transpacific trade is an important input to the U.S. economy, accounting for nearly half of all container traffic moving to and from U.S. ports. Typical U.S. import commodities in the transpacific trade consist of finished goods, while typical U.S. exports consist of industrial inputs.
- Existing carriers are expanding their capacity in the transpacific and several additional carriers are expected to enter the trade in 1999. This expansion, which the *Journal of Commerce* calls a “stampede into the Pacific,” indicates that increasing demand in the trade is serving to generate vigorous competition.
- The transpacific container trade, unfortunately, is highly imbalanced. Eastbound (U.S. import) cargo greatly exceeds westbound (U.S. export) cargo. The imbalance is projected to worsen over the foreseeable future.
  - Due to this imbalance, more than 1 million empty 40-foot containers will have to be repositioned to Asia in 1999, at a cost of \$600 million to \$900 million.
  - The imbalance problem is compounded by a peak in demand for eastbound cargo space during July to October.
- Increasing demand has caused eastbound utilization levels (percent of vessel capacity filled) to rise steadily. However, the decrease in westbound demand has been so severe that *overall* utilization rates – and therefore revenues – have fallen.
  - The excess demand on the eastbound leg supports the proposed rate increase of \$900-\$1,000 per FEU.

- Adjusted for inflation, 1999 eastbound rates (with the rate increase) will just reach 1995 levels. Westbound rates will continue to fall.
- Declining rates *in both directions* have cut average transpacific revenues per slot of capacity by 28 percent between 1995 and 1998. Even with the rate increase, transpacific revenues per slot will be less in 1999 than in 1995.
- Much of the proposed rate increase will be absorbed by the cost of repositioning empty containers back to Asia. Empty container repositioning costs average \$500-\$800 per FEU.
- Ocean shipping is only one component of total shipment cost, and eastbound transpacific rates are typically less than 5 percent of declared cargo value. Thus, the rate increase will add only 1-2 percent to cargo value and have even less of an impact on the retail cost of goods to U.S. consumers.

#### I. Conclusion

- Market fragmentation, undifferentiated services, declining freight rates, and poor financial performance have created a “vicious circle” for liner shipping companies.
- The transpacific eastbound rate increase and westbound transpacific rate decline are concrete examples of market-based pricing, which the Ocean Shipping Reform Act of 1998 was expressly designed to promote.
- The liner shipping industry’s economic performance is typical of an industry in which intense competition has kept rates low – not one with unbridled pricing power. In order to survive in this competitive environment and invest in service improvements to meet the needs of its customers, net revenues must cover long-term costs.

## ***Annex A. Qualifications and Experience of Mark H. Kadar***

Mr. Kadar, a Vice President in the Transportation Group of Mercer Management Consulting, leads Mercer's liner shipping and port practices and also works extensively on strategy development and restructuring projects for transportation companies in Europe and North America.

At Mercer, he has led strategy, organizational design, and operational improvement projects for liner shipping companies, major railroads, logistics providers, and ports in Europe and America.

Mr. Kadar's recent experience includes:

- Developing a long-term growth strategy for a large European ocean carrier
- Several marketing and customer franchise management projects for a major European airline
- Leading a comprehensive engagement involving the restructuring, reorganization, and successful turnaround of one of Europe's largest port-operating companies
- Efficiency improvement and operational streamlining efforts for several major European and North American railways

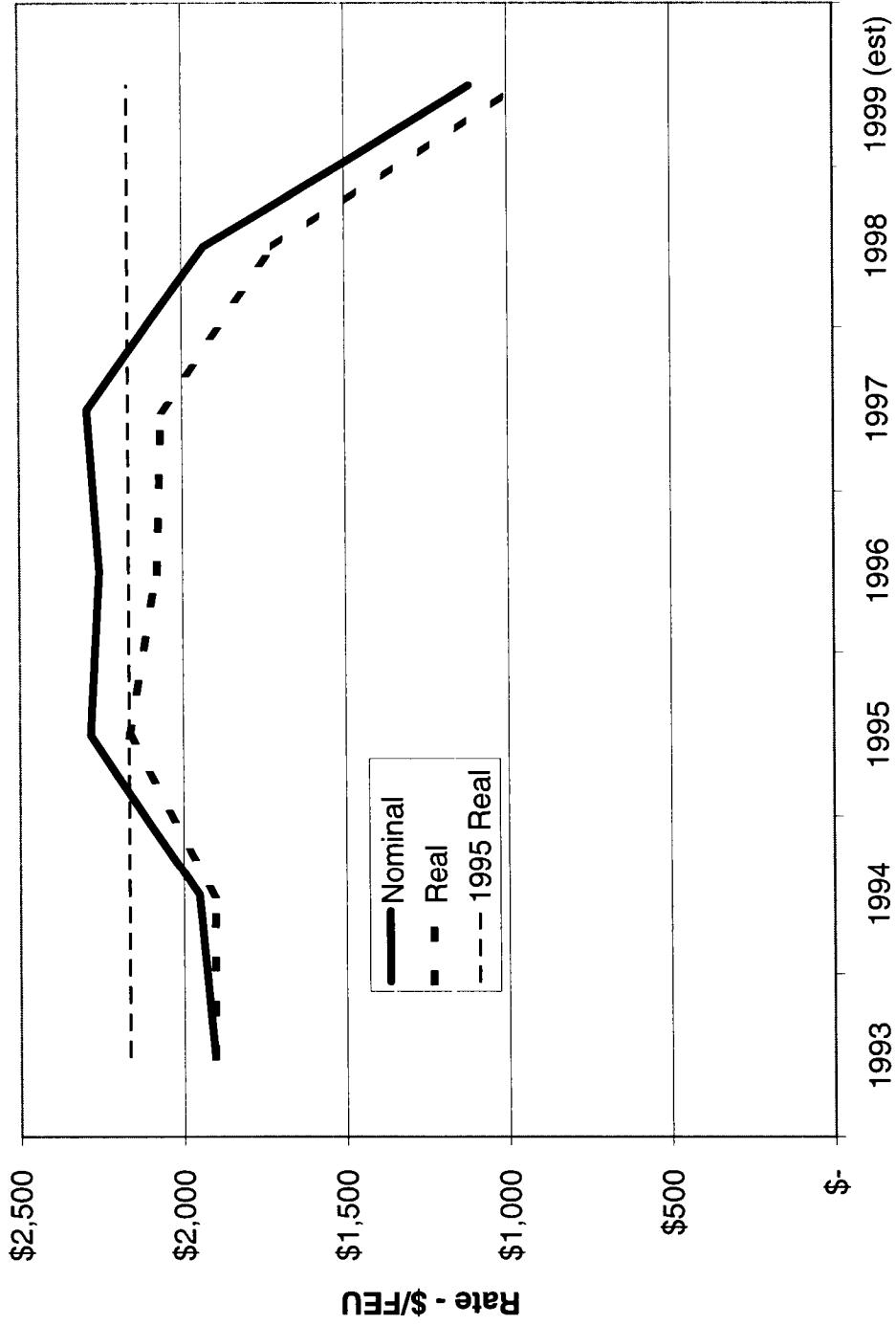
Mr. Kadar writes extensively on strategic trends impacting the transportation and logistics industries, and is a frequent speaker at conferences.

Before joining Mercer, Mr. Kadar was senior vice president, Atlantic, of Hapag-Lloyd (America), Inc. Previously, Mr. Kadar worked for the Roland Berger Group and Bain & Company, Inc., where he focused on the consumer information and direct marketing, consumer products, and health care industries. He has extensive experience in corporate strategy, marketing, reorganization, and mergers and acquisitions work.

Mr. Kadar received a B.A. (summa cum laude), M. Phil. (with distinction) in German literature, and an M.A. from Yale University. He also holds a J.D. (cum laude) from Harvard Law School.

Westbound

## Cotton -U.S. West Coast to Singapore



## Annex B. Qualifications and experience of Mercer Management Consulting, Inc.

### Mercer Management Consulting, Inc. (Mercer) is a world leader in management consulting.

**Fortune Global 500  
clients**

**1,200 employees  
worldwide  
in 17 locations**

- Americas
  - Americas
  - Europe
  - Asia Pacific
  - Africa
  - Middle East
- Boston
- Buenos Aires
- Chicago
- Cleveland
- Hong Kong
- Istanbul
- London
- Madrid
- Montreal
- Munich
- New York
- Paris
- Pittsburgh
- San Francisco
- Toronto
- Wellington
- Zurich

**Consults to top management to  
achieve profitable growth and  
increase business value by:**

- Knowing customers and markets
- Understanding the competitive economics
- Implementing successful strategies

## Qualifications and experience of Mercer Management Consulting, Inc.

**Mercer's Transportation Group, with a professional staff of more than 100 in Europe and North America, is one of the largest such consultancies in the world, providing a broad range of assistance to transportation carriers and to the users and regulators of transportation services.**

- Mercer is actively engaged in projects across the full range of the transportation sector, including:

- |  |   |
|--|---|
| • Air freight                              | • Ports                                   |
| • Air passenger                            | • Rail freight                            |
| • Financial services                       | • Rail passenger (commuter and intercity) |
| • Freight forwarding and customs brokerage | • Small parcel                            |
| • Inland waterways                         | • Toll roads and highways                 |
| • Intermodal services                      | • Transportation and equipment supply     |
| • Motor carriers                           | • Urban transportation and transit        |
| • Ocean shipping (liner, tanker, bulk)     | • Warehousing and distribution            |

- The Transportation Group also offers capabilities in international market research, evaluating new business opportunities, developing strategic plans and specific marketing plans, designing organizational structures to manage businesses, and implementing transportation services. Additionally, professional staff regularly publish and speak in national and international forums.
- Mercer's transportation clients include national and regional governments on six continents as well as many of the world's largest ocean carriers, railroads, motor carriers, leasing companies, and industrial and consumer manufacturing firms.

# Qualifications and experience of Mercer Management Consulting, Inc.

## Representative Transportation Group Experience

	United States and Canada	Europe	Latin America	Africa, Asia, Australia
<b>Rail</b>	<ul style="list-style-type: none"> <li>Amtrak</li> <li>BNSF</li> <li>Canadian National</li> <li>Canadian Pacific</li> <li>CSX</li> <li>Norfolk Southern</li> <li>Union Pacific</li> <li>VIA Rail</li> </ul>	<ul style="list-style-type: none"> <li>Austrian Railway (ÖBB)</li> <li>British Rail</li> <li>European Commission</li> <li>French Railway (SNCF)</li> <li>German Railway (DB)</li> <li>Hungarian Railway (MAV)</li> <li>Swiss Railway (SBB)</li> <li>Polish Railway (PKP)</li> </ul>	<ul style="list-style-type: none"> <li>Ferroexpreso</li> <li>Pampeano, S.A.</li> <li>Govt. of Argentina</li> <li>Govt. of Brazil</li> <li>Govt. of Chile</li> <li>Govt. of Colombia</li> </ul>	<ul style="list-style-type: none"> <li>Govt. of Guatemala</li> <li>Govt. of Mexico</li> <li>Govt. of Peru</li> <li>Govt. of Uruguay</li> </ul>
<b>Road and Forwarding</b>	<ul style="list-style-type: none"> <li>Burlington Motor Carriers</li> <li>Apollo L.P.</li> <li>Consolidated Freightways</li> <li>Trimac</li> <li>JB Hunt</li> </ul>	<ul style="list-style-type: none"> <li>Yellow Corp.</li> <li>ABF</li> <li>Apollo L.P.</li> <li>Ryder System</li> </ul>	<ul style="list-style-type: none"> <li>ANTRAM (Portugal)</li> <li>Equipment manufacturers</li> <li>Major pan-EC carrier</li> <li>SOMAT (Bulgaria)</li> </ul>	<ul style="list-style-type: none"> <li>Brazilian corporation</li> <li>Confidential client</li> </ul>
<b>Maritime</b>	<ul style="list-style-type: none"> <li>ACBL</li> <li>APL</li> <li>Amoco</li> <li>Delaware River Port Authority</li> <li>Jacksonville Port Authority</li> <li>Port Authority of NY&amp;NJ</li> </ul>	<ul style="list-style-type: none"> <li>Puerto Rico Maritime Shipping Auth.</li> <li>Sea-Land</li> <li>US MarAd</li> <li>Vancouver Port Corporation</li> <li>World Bank</li> </ul>	<ul style="list-style-type: none"> <li>BLASCO</li> <li>Bollore-Delmas</li> <li>Bona Shipping AS</li> <li>Croatia Line</li> <li>EIMSKIP</li> <li>Inchcape</li> <li>Maersk Line</li> </ul>	<ul style="list-style-type: none"> <li>Marseille Chamber of Commerce</li> <li>Port of Amsterdam</li> <li>Ports of Bremen &amp; Bremerhaven</li> <li>Sea-Land</li> </ul>
<b>Air Transport</b>	<ul style="list-style-type: none"> <li>Air Canada</li> <li>BankBoston</li> <li>Continental Airlines</li> <li>Delta Air Lines</li> <li>IATA</li> <li>Salomon Brothers</li> <li>United Airlines</li> <li>United Parcel Service</li> <li>USAir</li> </ul>	<ul style="list-style-type: none"> <li>Air France</li> <li>Amsterdam</li> <li>Schiphol Airport</li> <li>Berlin Airport</li> <li>British Airways</li> <li>KLM Cargo</li> <li>KLM Royal Dutch Airlines</li> <li>U.K. Government</li> </ul>	<ul style="list-style-type: none"> <li>Lufthansa</li> <li>Malev Hungarian Airlines</li> <li>Poland Industrial Devel. Agency</li> <li>St. Petersburg City Council</li> <li>United Airlines</li> </ul>	<ul style="list-style-type: none"> <li>Air New Zealand</li> <li>All Nippon Airways</li> <li>Brisbane Int'l. Airport</li> <li>COVIA</li> <li>EL AL</li> <li>Govt. of Japan</li> <li>SATA Air Açores</li> <li>South African Airways</li> <li>Star Alliance</li> </ul>
<b>Urban Transport and Other Services</b>	<ul style="list-style-type: none"> <li>Chicago RTA</li> <li>Long Island Rail Road</li> <li>MARTA</li> <li>Motorola</li> <li>New Jersey Transit</li> <li>TransAmerica</li> <li>GE Railcar</li> </ul>	<ul style="list-style-type: none"> <li>British Rail (Regional)</li> <li>Deutsche Bahn</li> <li>EC Directories</li> <li>Equipment lessors</li> <li>Financial institutions</li> <li>Sheffield Light Rail System (UK)</li> </ul>	<ul style="list-style-type: none"> <li>City of Cali (Colombia)</li> <li>City of Medellin (Colombia)</li> <li>Govt. of Argentina</li> <li>Govt. of Brazil</li> <li>Govt. of Uruguay</li> <li>Metropolitano (Argentina)</li> </ul>	<ul style="list-style-type: none"> <li>South African Rail Commuter Corp.</li> <li>Transnet</li> <li>World Bank</li> </ul>

Key:



6 to 10 engagements by Mercer staff over last five years

1 to 5 engagements by Mercer staff over last five years

## Qualifications and experience of Mercer Management Consulting, Inc.

### Mercer combines industry and transaction expertise with a suite of analytical, modeling, and industry database capabilities.

<b>Industry and Transaction Expertise</b>	<ul style="list-style-type: none"><li>• Unmatched depth of industry knowledge</li><li>• Hands-on experience managing transportation companies</li><li>• Transaction knowledge and expertise</li><li>• Track record of successful solutions for performance and financial shortfalls</li></ul>
<b>Analytical Models and Methodologies</b>	<ul style="list-style-type: none"><li>• Strategic Choice Analysis® (SCA®)</li><li>• Interactive Strategy Models® (ISM®)</li><li>• Financial simulation and planning</li><li>• Portfolio management</li><li>• Market growth/direction</li><li>• Demand forecasting</li><li>• Capital/investment planning</li><li>• Rate of return scenario development</li><li>• Network resizing/asset rationalization</li><li>• Business simulation</li><li>• Risk management</li><li>• Value migration</li></ul>
<b>Industry Databases and Libraries</b>	<ul style="list-style-type: none"><li>• Maritime databases</li><li>• Rail databases</li><li>• Freight traffic databases</li><li>• Motor carrier rate databases</li><li>• Organization "best practices" benchmarking databases</li></ul>
<b>Market Research</b>	<ul style="list-style-type: none"><li>• Competitor research</li><li>• Shipper/customer interviews, surveys, and focus groups</li><li>• Modal choice analysis</li><li>• Buyer decision modeling</li><li>• Market forecasting</li><li>• In-house strategic market research</li><li>• Market analysis for suppliers to the industry</li></ul>

*Before the U.S. House  
Committee on the Judiciary*

**Oversight Hearing on the  
Anti-Trust Aspects of the  
Ocean Shipping Reform Act  
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Statement of  
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II. Presentation slides: Today's hearing

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**Mercer was requested by a group of major containership operators to provide a presentation that would analyze and discuss:**

- The characteristics and economics of the ocean liner shipping industry
- The market dynamics of the transpacific trade

A. The ocean liner industry: characteristics and economics

**Worldwide container trade is a huge enterprise, involving more than 500 carriers, 2,500 vessels, and 350 ports. Half of all container trade is handled on four trade lanes.**

**Major Ocean Trade Lanes**



	World	Transpacific	Intra-Asia	Europe-Asia	Transatlantic
<b>1998 Volume</b>	24.2M FEUs	4.4M FEUs	3.6M FEUs	2.6M FEUs	2.1M FEUs
<b>Ocean Carriers<sup>1</sup></b>	500+	26	40+	35	36
<b>Container Vessels</b>	2,500+	294+	200+	188+	125+
<b>Container Ports</b>	350+	35+	30+	60+	50+

Source: Standard & Poor's DRI; *Containerisation International Yearbook*, 1999.

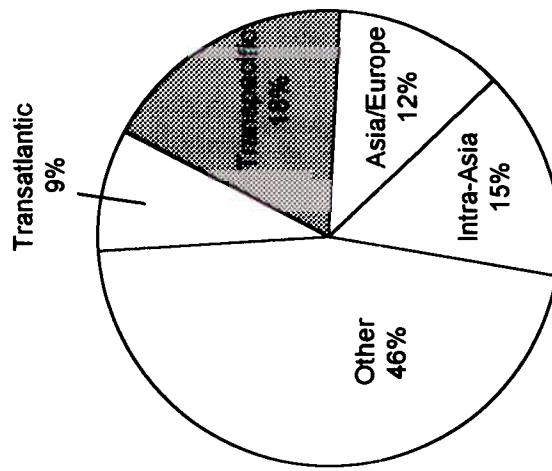
Note: FEUs = 40-foot equivalent units (40-foot containers).

<sup>1</sup>Carriers operating container vessels on a regularly scheduled basis.

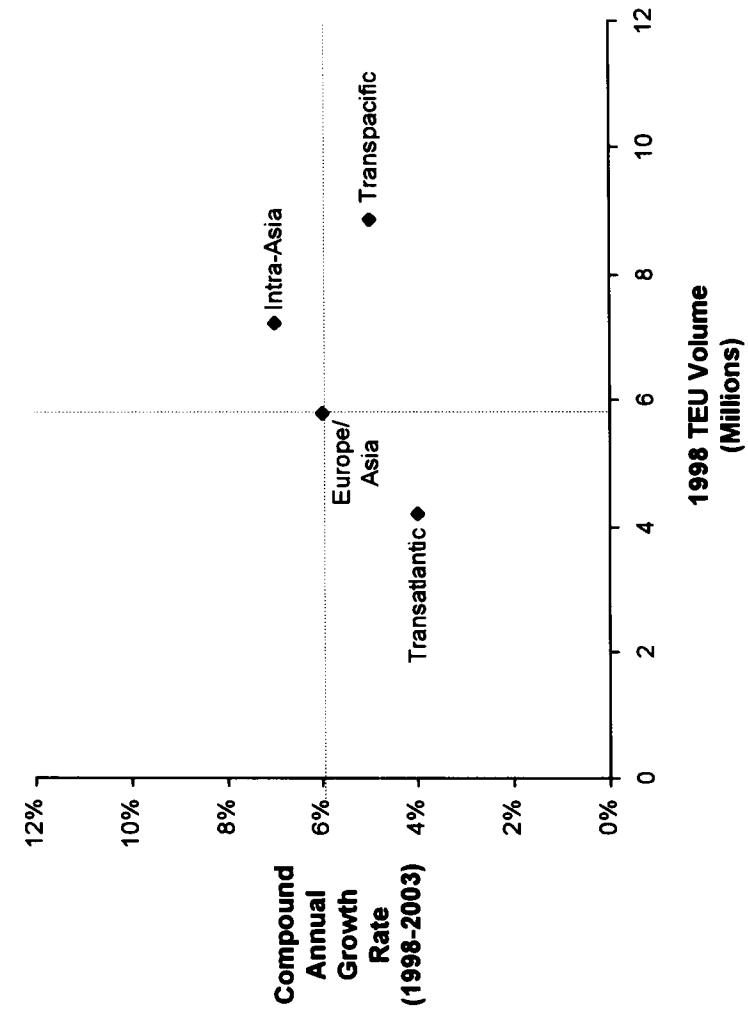
The ocean liner industry: characteristics and economics

**Transpacific trade (North America-Asia) is the largest segment of global containerized ocean freight and is projected to show healthy growth rates through 2003.**

**Global Containerized Ocean Freight by Region – 1998**



**Projected Containerized Ocean Freight Growth Rates**



Source: Standard & Poor's DRI, World Sea Trade Service, 1Q99.

Note: TEUs = 20-foot equivalent units (20-foot containers).

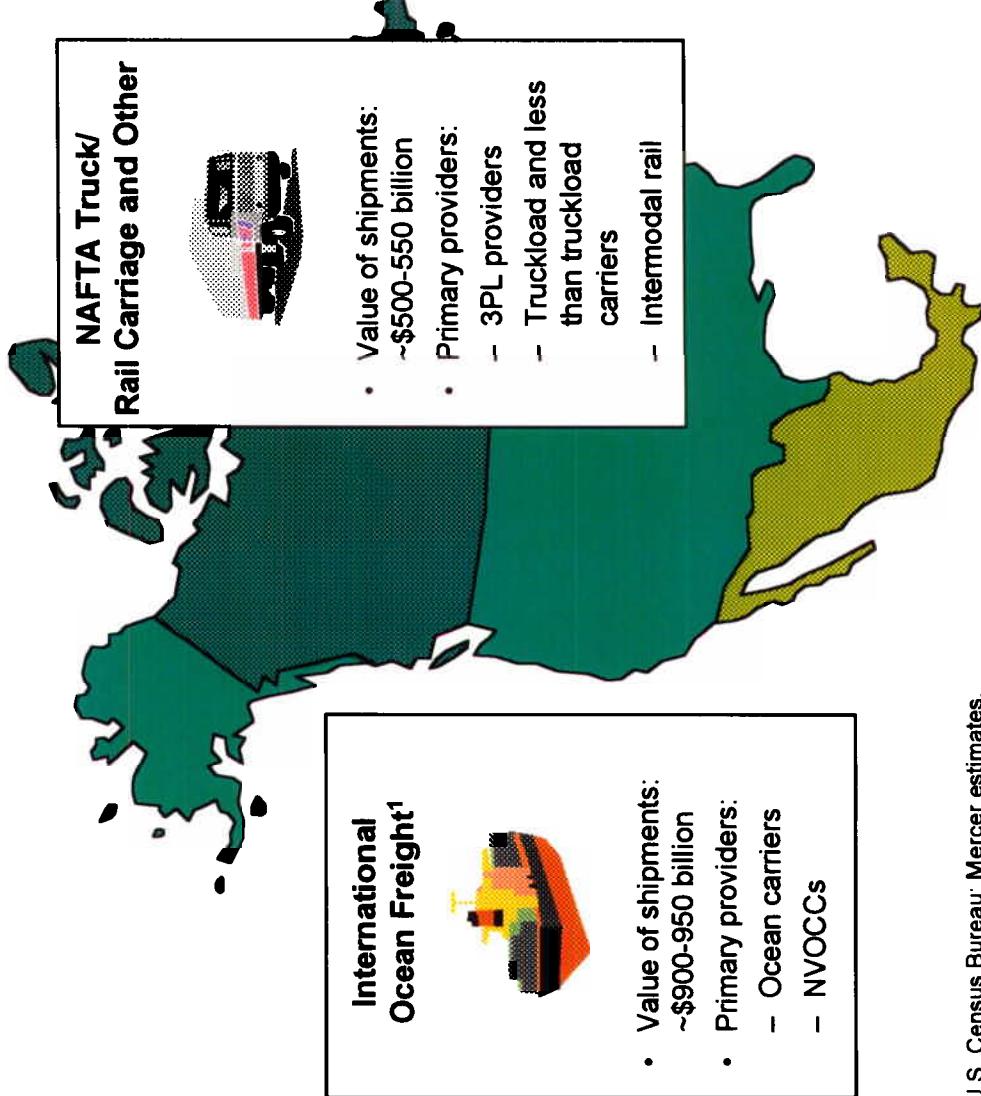
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Mercer Management Consulting

## The ocean liner industry: characteristics and economics

Ocean freight also accounts for approximately one-half of all U.S. international trade.

U.S. Exports and General Imports of Goods – 1999(E)

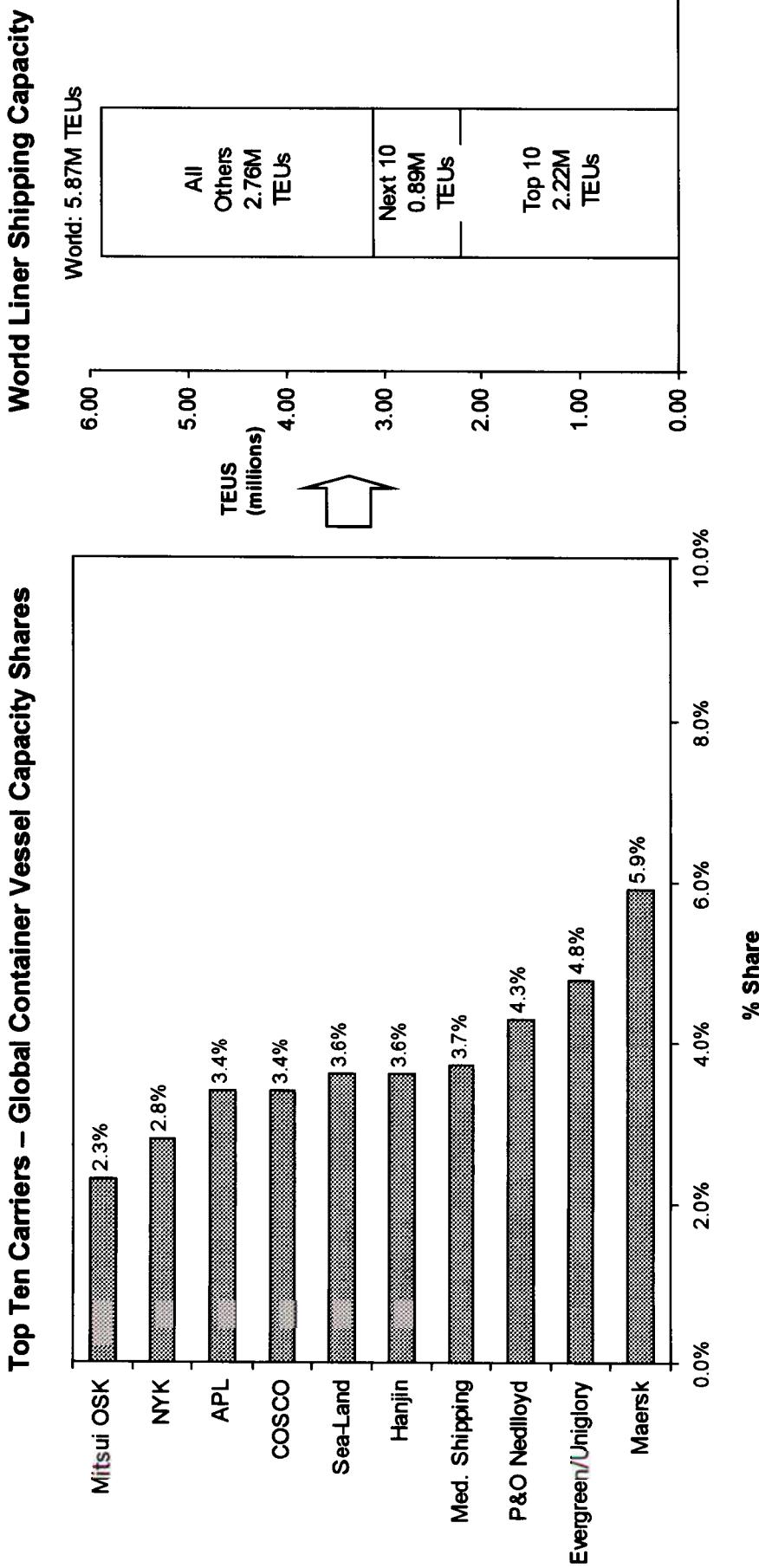


Source: U.S. Census Bureau; Mercer estimates.

<sup>1</sup>Bulk and containerized.

## The ocean liner industry: characteristics and economics

**The ocean carrier industry is highly fragmented: None of the top 10 international carriers has more than a 6 percent share of world containership capacity. Even the top 20 carriers account for only half of total world capacity.**



Source: Containerisation International Yearbook, 1999

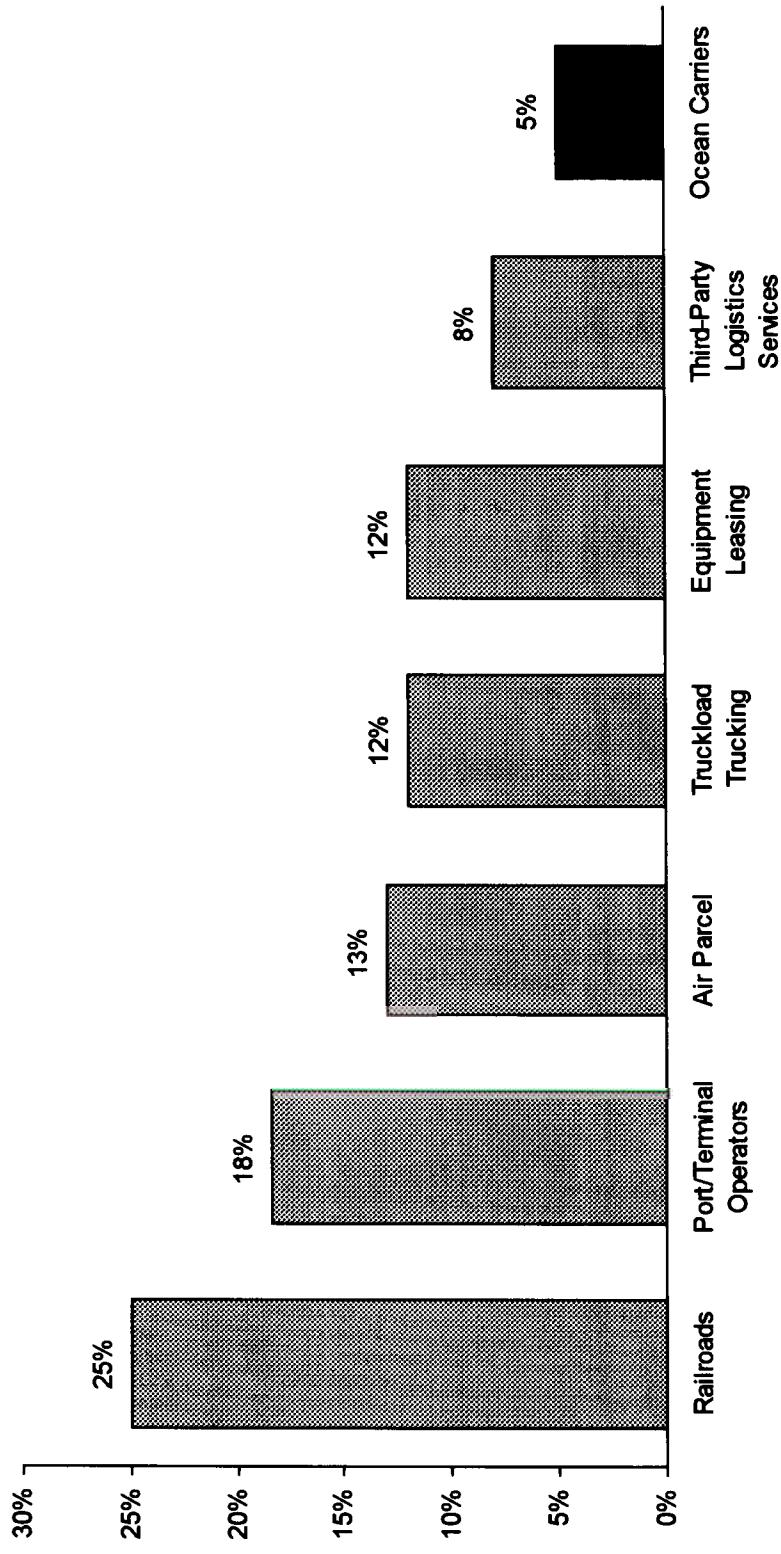
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Mercer Management Consulting

## The ocean liner industry: characteristics and economics

**The intensely competitive nature of the liner shipping business has caused the industry to incur poor financial returns, despite ongoing volume growth and extensive cost-reduction efforts.**

**Operating Margins of Representative Ocean Carriers versus Other Transportation Industries  
(1993-1997)**



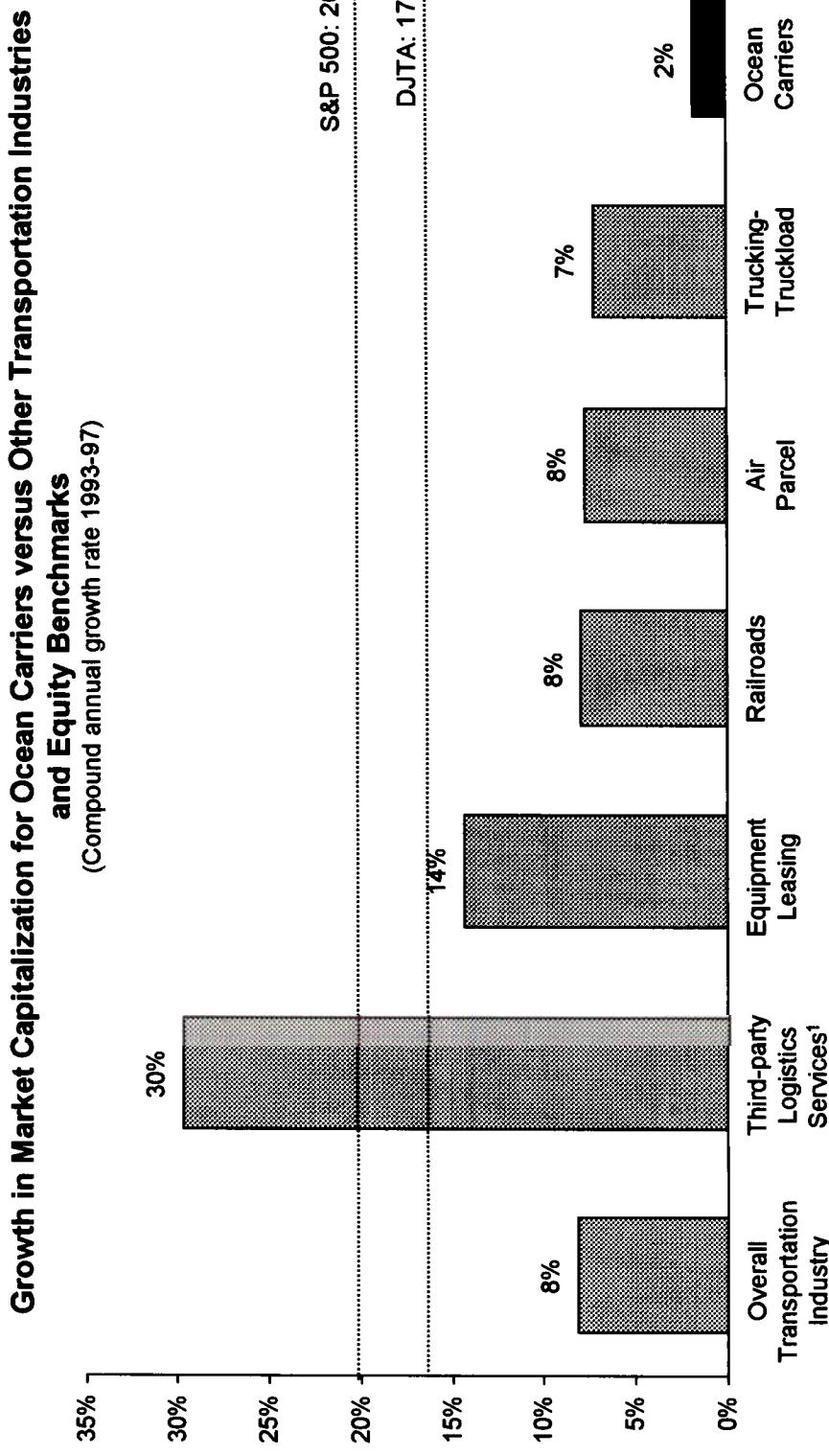
Source: Public company data; ocean carrier annual reports; Mercer analysis.

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Mercer Management Consulting

## The ocean liner industry: characteristics and economics

**Although comparisons are difficult because many ocean carriers are international companies or have substantial other businesses, in general, ocean carriers have returned less value to shareholders than other transportation modes and have underperformed U.S. equity benchmarks.**



<sup>1</sup>Forwarders include AEI, CH Robinson, Circle, Expeditors, Fritz.

Source: Mercer analysis.

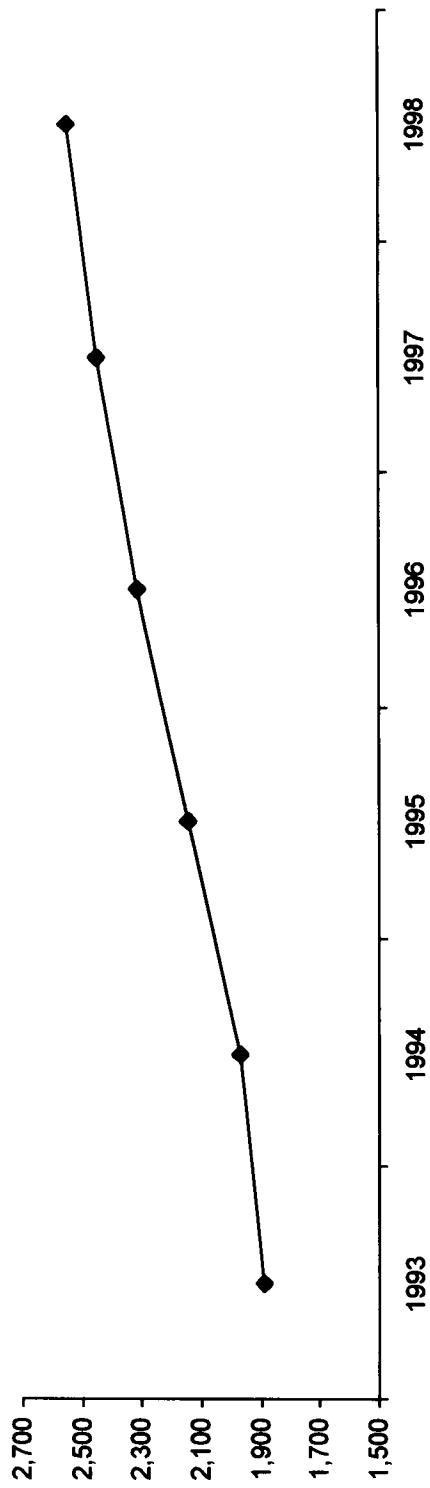
Note: All figures for U.S. public companies only, except ocean shipping.

## The ocean liner industry: characteristics and economics

**NVOCCs (non-vessel operating common carriers) buy slot capacity on a wholesale basis and also compete with carriers for retail customers.**

- Approximately 2,600 NVOCCs are currently registered with the U.S. Federal Maritime Commission. Between 1993 and 1998, the number of NVOCCs grew by 35 percent.
- NVOCCs account for approximately 10-15 percent of all TEUs carried in the U.S. trade.

**Growth in Number of U.S. NVOCCs (Non-Vessel Operating Common Carriers)**



Source: Federal Maritime Commission

5/6/99/BOS1/Trans/Common carriers/SRRB004A-01/Transp rates/sectionII.ppt

Mercer Management Consulting

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## The ocean liner industry: characteristics and economics

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### **Roundtrip economics are critical in ocean shipping.**

- Oceangoing vessels operate on set roundtrip schedules. They cost \$40,000-\$60,000 per day to operate.
- Operating costs for liner companies are largely fixed: vessel utilization and rate levels drive carrier financial performance.
- Containers must be repositioned to points of origin to carry new shipments. If loaded movements are not balanced, carriers must move empty containers to meet customer demand.
- One of the problems impacting the liner shipping industry of late has been the severe imbalance in directional demand on the transpacific (North America-Asia) and Europe-Asia trades.
  - North America imports from Asia are projected to exceed exports by 2.4 million TEUs in 1999.
  - European imports from Asia are projected to exceed exports by 1 million TEUs in 1999.

 **For carriers to invest in service improvements and new vessel, container, and terminal capacity, roundtrip revenues must yield an adequate margin over roundtrip costs.**

## The ocean liner industry: characteristics and economics

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**Capital costs in the liner industry are relatively high, and many players in the liner industry already do not earn their cost of capital.**

- Transoceanic container vessels are expensive assets.
  - New containerships of up to 6,000 TEU capacity cost between \$60 million and \$80 million each.
  - Mid-size containerships of 2,200-3,400 TEU capacity cost between \$30 million and \$40 million each and command charter rates of \$12,000-\$16,000 per day.
- Annual capital expenditures for large carriers range from \$350 million to \$1 billion.<sup>1</sup>

 **The requirement for significant capital expenditures, coupled with carriers' inability to earn the cost of capital, poses a significant long-term threat to the health of the industry.**

Source: Containerisation International, 12/98-4/99; representative carrier annual reports.

<sup>1</sup>Proportional to cost of newbuildings, terminal operations, and ongoing expenditures.

## The ocean liner industry: characteristics and economics

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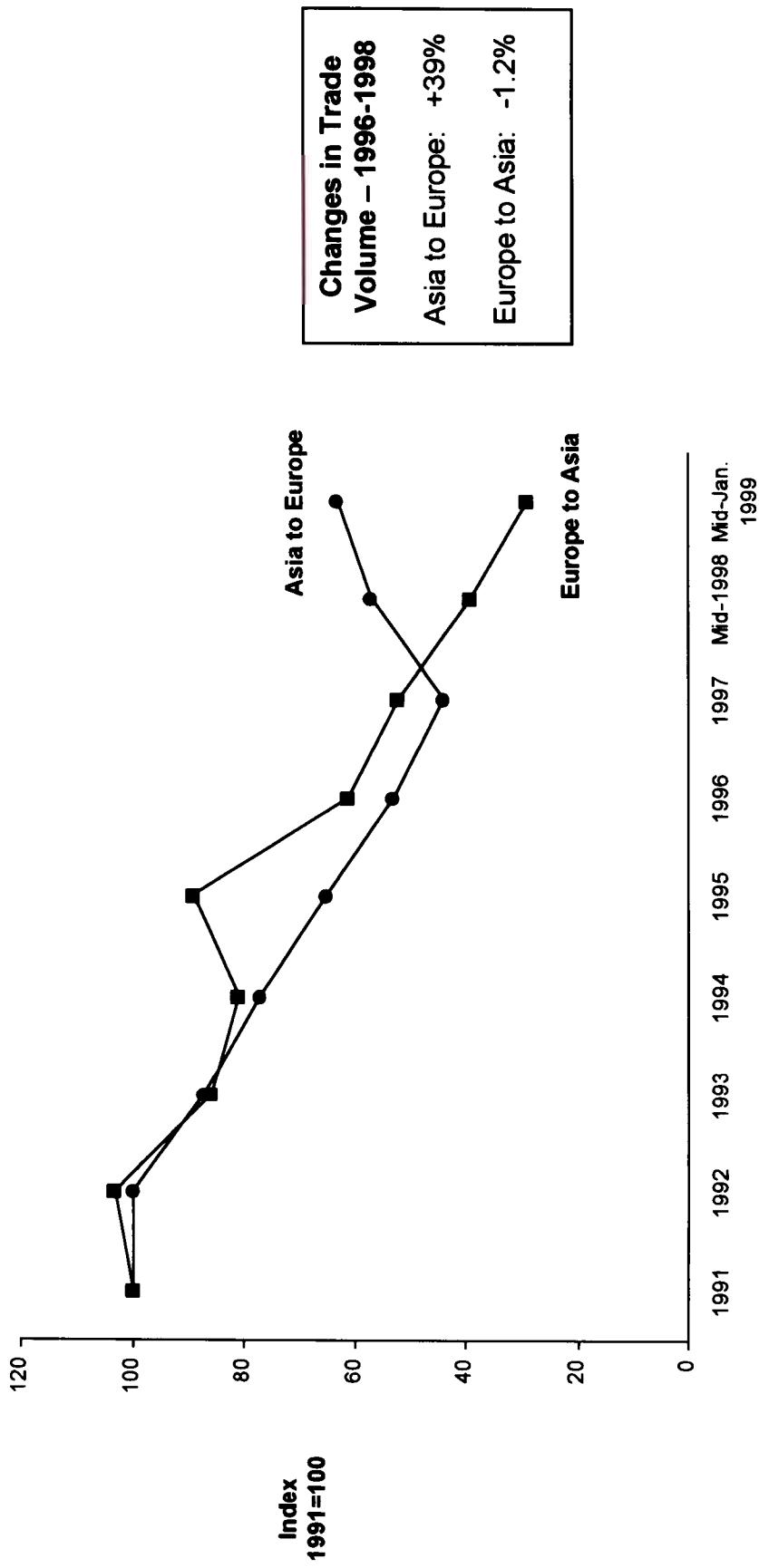
### **Ocean carrier freight rates are driven ultimately by supply and demand – not collective ratemaking.**

- Rates rise when demand (cargo) equals or exceeds supply (vessel capacity) and fall when supply exceeds demand.
- Most traffic moves under negotiated contract rates. Large shippers negotiate lower rates in return for higher volumes.
- Depending on shipper needs, rates can be set from port to port or between inland origin and inland destination.
- The setting of ocean carrier rates is highly complex. Rates are dependent on the value of the commodities being shipped, and, depending on customer requirements, can include inland transportation, currency and fuel adjustment factors, and specialized services.

The ocean liner industry: characteristics and economics

The impact of supply and demand on rates can be illustrated by looking at the Europe-Asia market. Until recently, rates in this trade declined steadily as demand for cargo space fell.

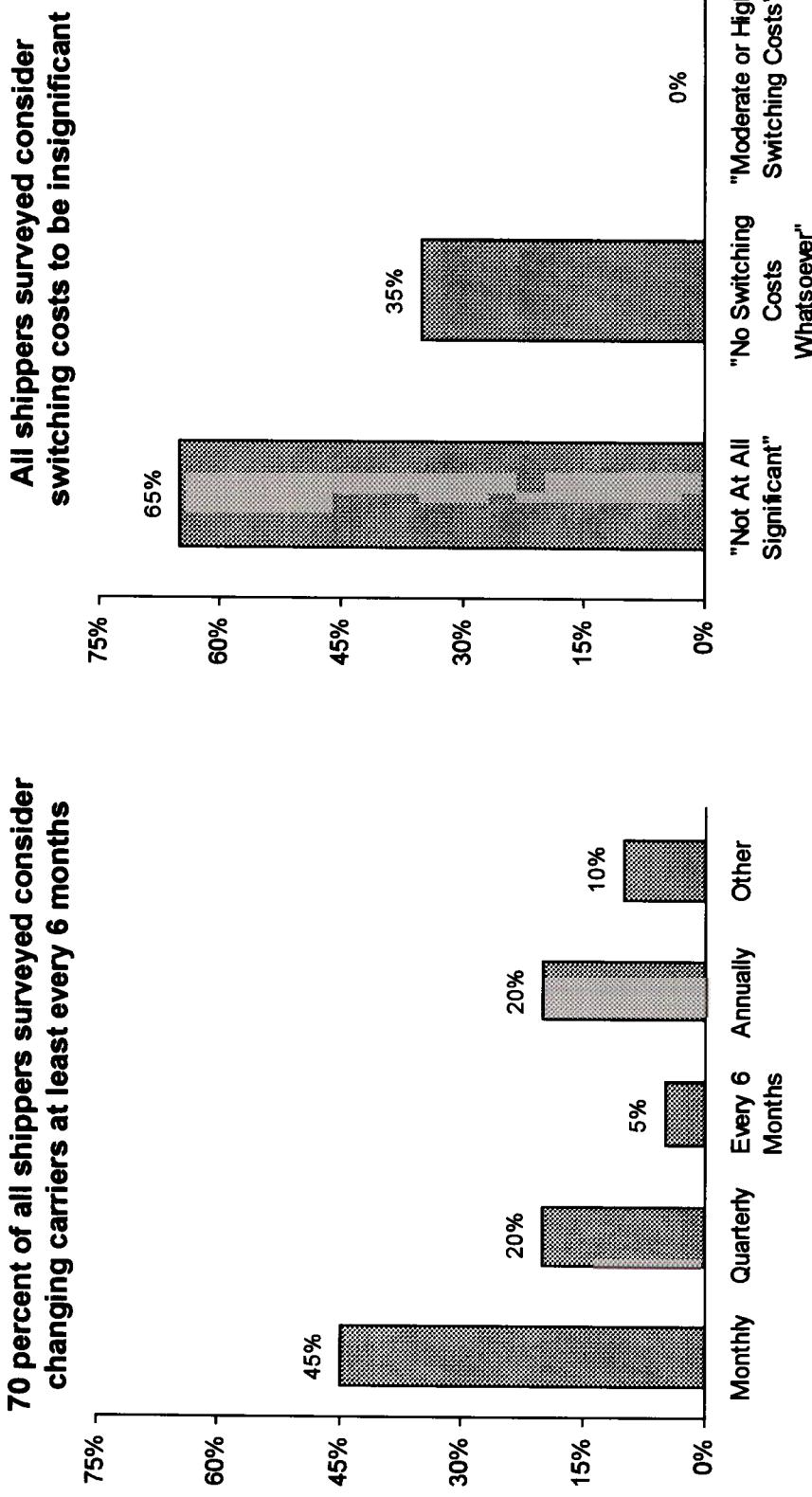
Ocean Rate Index for Europe-Asia Trade – 1991 to Mid-January 1999



Source: FEFC.

## The ocean liner industry: characteristics and economics

**Although leading lines are trying to differentiate themselves through improved service, customers still select ocean carriers primarily based on price and view switching costs to be insignificant.**



Source: Mercer shipper survey

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## B. The transpacific trade: Market dynamics

### A total of 27 carriers compete in the transpacific trade (North America-Asia) including the world's ten largest lines.

- More than 40 different services
- Multiple weekly departures from major Asian Ports, such as Hong Kong, Singapore, Yokohama, and Kaohsiung to major North American ports, such as Los Angeles/Long Beach, Oakland, Seattle/Tacoma, and Vancouver

Transpacific Container Lines

Of Top 10 Worldwide	Of Top 20 Worldwide	Other Lines
• APL	• Hapag-Lloyd	• Cho Yang
• COSCO	• Hyundai	• Chilean Line
• Evergreen	• "K" Line	• CSAV
• Hanjin	• OOCL	• DSR-Senator
• Maersk	• Yangming	• Lloyd Tresino
• Med. Shipping	• ZIM Israel	• Madrigal-Wan Hai
• Mitsui OSK		• Matson Navigation
• NYK		• P&O
• P&O Nedlloyd		• TMM
• Sea-Land		• Westwood
		• Wilhelmsen

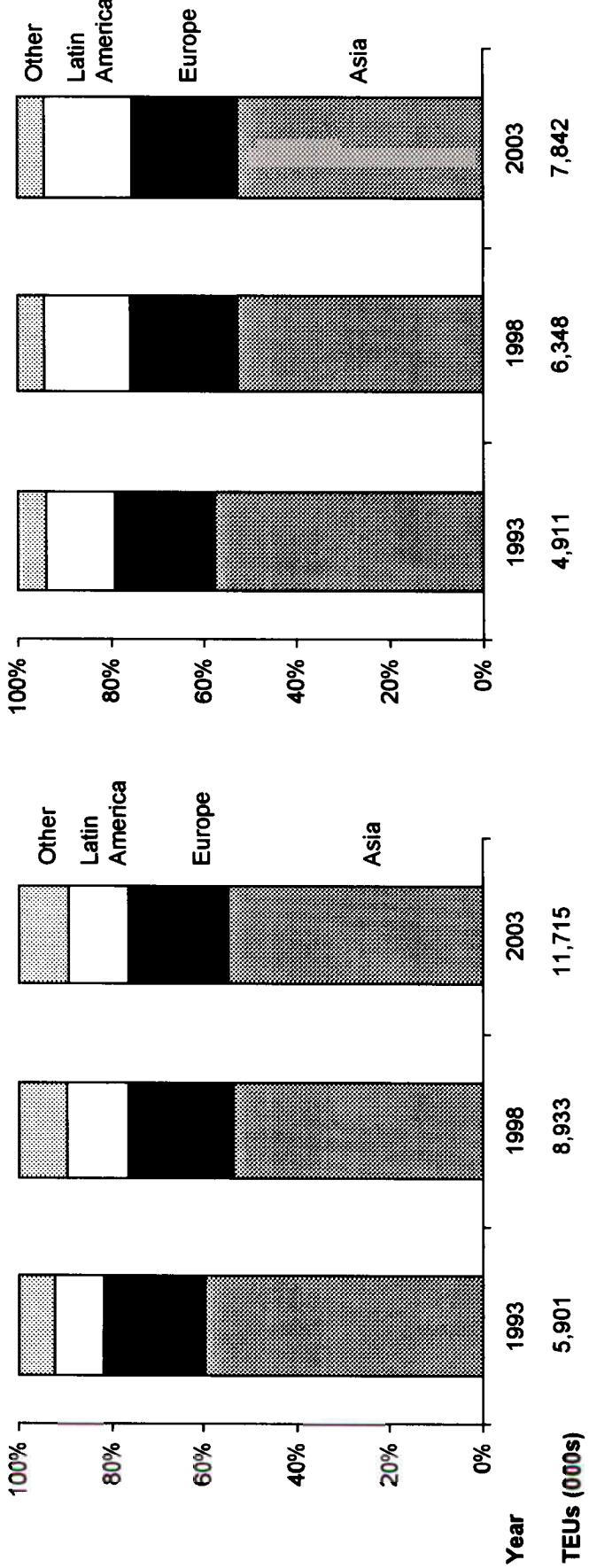
- Largest market share is only 10-13 percent (APL and Evergreen eastbound, Hanjin and Evergreen westbound)
- Smallest shares are less than 0.5 percent



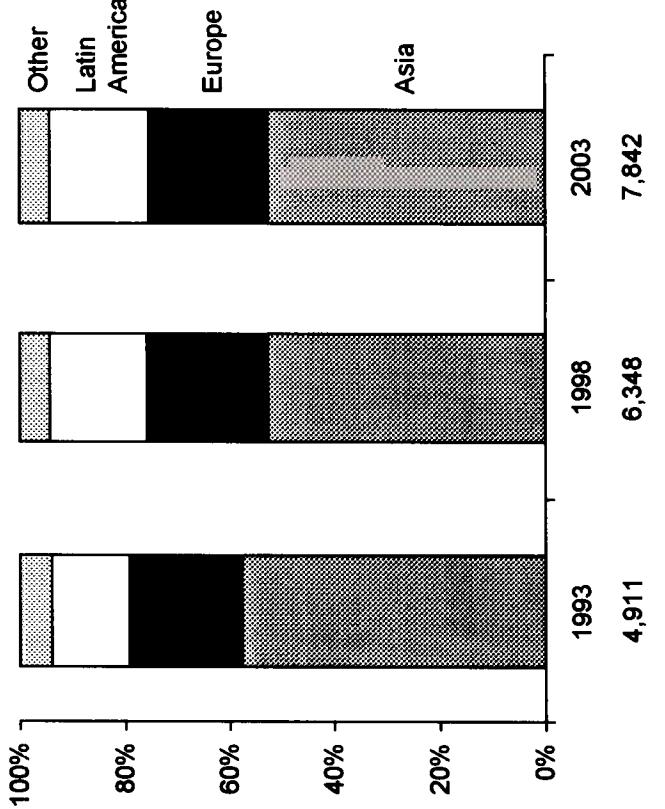
## The transpacific trade: Market dynamics

**Transpacific trade is an important input to the U.S. economy, accounting for half of all container traffic to and from U.S. ports.**

North American Container Imports



North American Container Exports



Source: Standard & Poor's DRI, World Sea Trade Service, 1Q99.

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## The transpacific trade: Market dynamics

**Typical U.S. import commodities in the transpacific trade consist of finished goods, such as electronic goods, toys, and furniture, while typical U.S. exports consist of industrial inputs, such as waste paper, resins, and chemicals.**

Eastbound (U.S. Imports)	1998 FEUs
1. Electronic goods	245,202
2. Toys	193,746
3. Furniture/parts	164,573
4. Wearing apparel	145,331
5. Auto parts/CKD	141,242
6. Computers/business machines	139,116
7. Footwear	135,147
8. Mixed commodities	85,339
9. Plastics mfg/goods	74,747
10. Tires/tubes	60,322
All others	628,240
<b>Total Trade</b>	<b>2,649,766</b>

Westbound (U.S. Exports)	1998 FEUs
1. Waste paper	186,300
2. Misc mfg.	146,771
3. Refrig. meat and poultry	84,876
4. Hay	83,769
5. Resins	75,359
6. Drugs and chemicals	69,118
7. Kraft liner board	64,423
8. Refrig. fruits and nuts	56,377
9. Refrig. vegetables	44,749
10. Lumber/logs	41,448
All others	523,531
<b>Total Trade</b>	<b>1,376,726</b>

Source: PIERS.

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## The transpacific trade: Market dynamics

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**Recent new entrants and capacity increases in the eastbound transpacific market indicate that increasing demand is generating vigorous competition.**

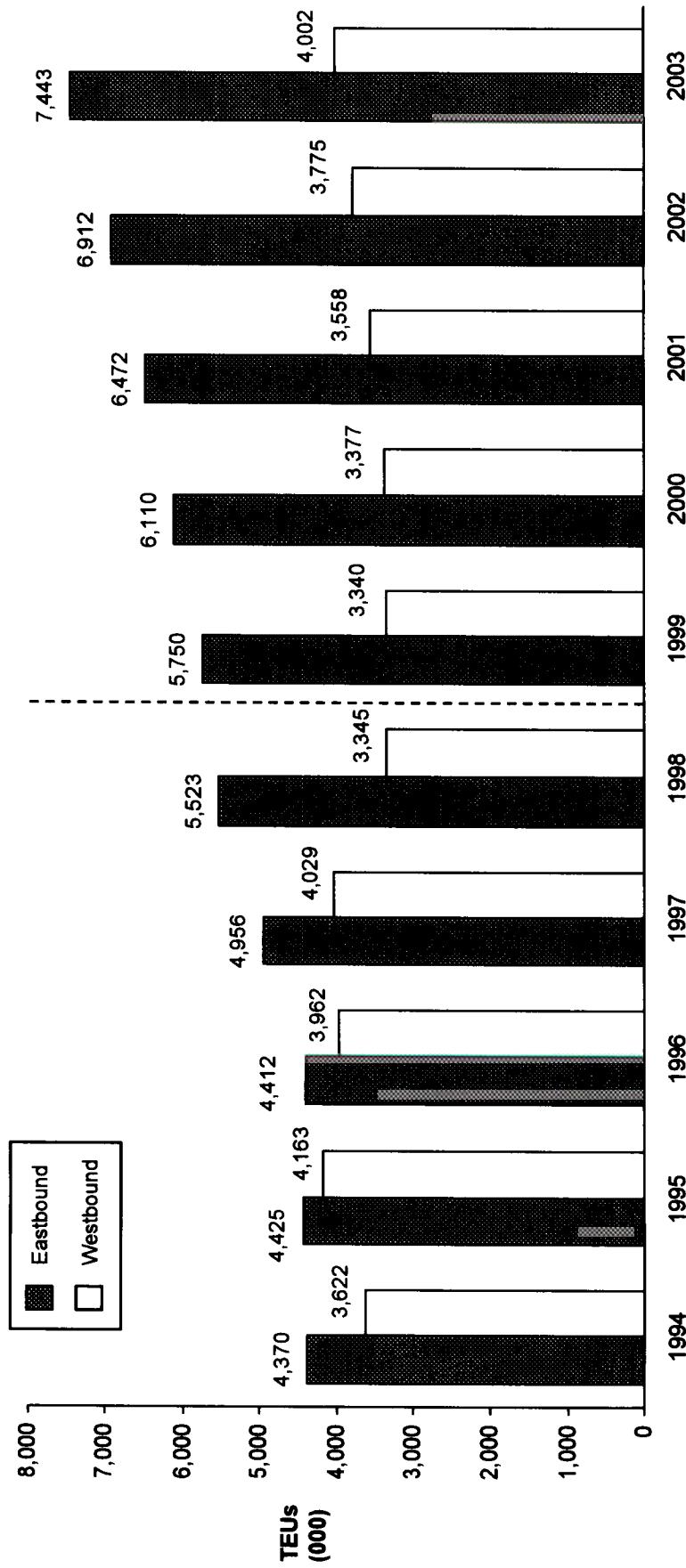
- “A stampede into the Pacific.” – *Journal of Commerce*
- New entrants in 1999
  - Mediterranean Shipping Corp. (world’s fourth largest steamship line)
  - CMA-CGM (world’s 14th largest steamship line)
  - GreatWestern (new service contract carrier)
  - Norasia Line (Swiss Europe-Asia carrier) will enter the transpacific with six 1,400 TEU vessels
  - Trans-Pacific lines is adding new services
  - Far East Shipping Co. (FESCO) will add a biweekly Asian service to its Russia-U.S. service
- Expanded capacity from existing carriers
  - Evergreen adding 86,400 TEUs of annual capacity
  - ZIM Israel adding a string of vessels

## The transpacific trade: Market dynamics

### The transpacific container trade is highly imbalanced.

- Eastbound (U.S. import) cargo greatly exceeds westbound (U.S. export) cargo.
- The imbalance has increased in the past two years and is predicted to increase for the foreseeable future.

Historical and Projected Transpacific Container Trade



Source: Standard & Poor's DRI, World Sea Trade Service, 1Q99  
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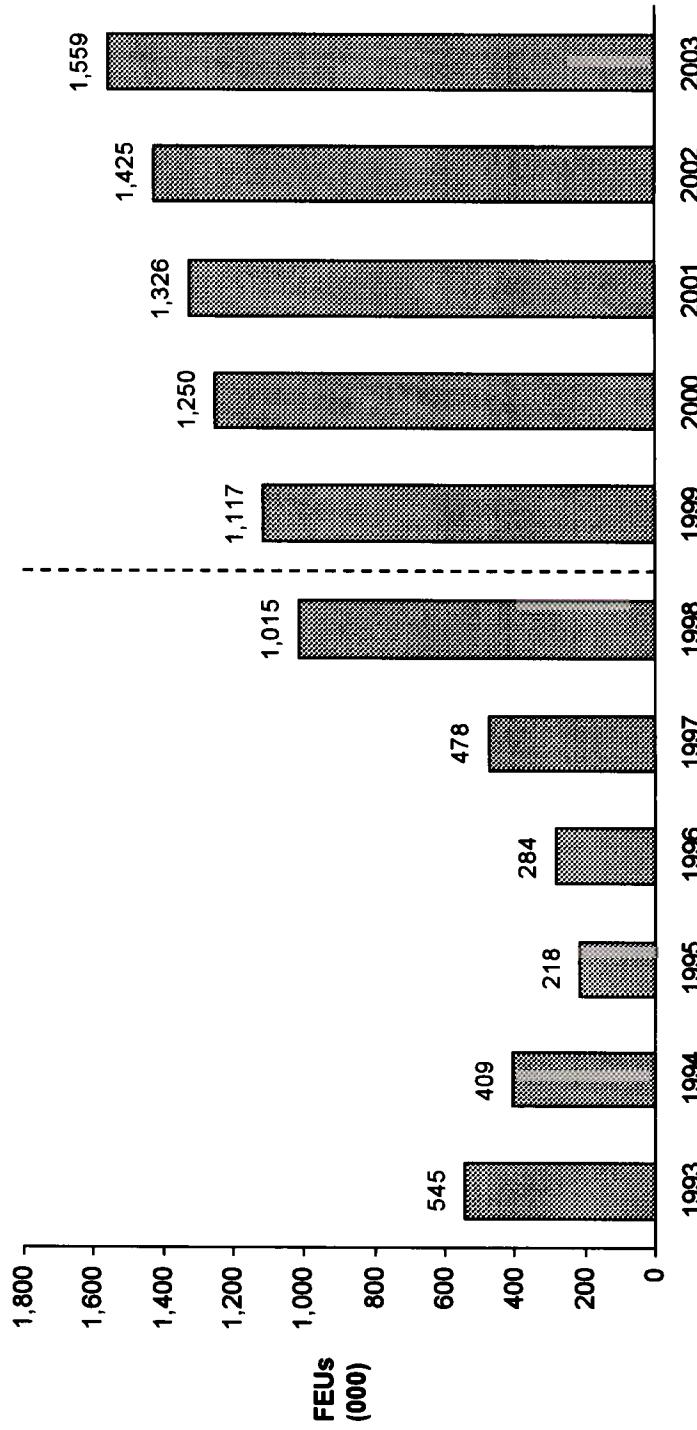
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## The transpacific trade: Market dynamics

**The imbalance is expected to leave the equivalent of over 1 million 40-foot containers to be repositioned to Asia in 1999, at a cost of \$600 million to \$900 million.<sup>1</sup>**

- Empty containers must be transported from the United States back to Asia to serve the needs of U.S. importers.

Historical and Projected U.S. Transpacific Container Surplus



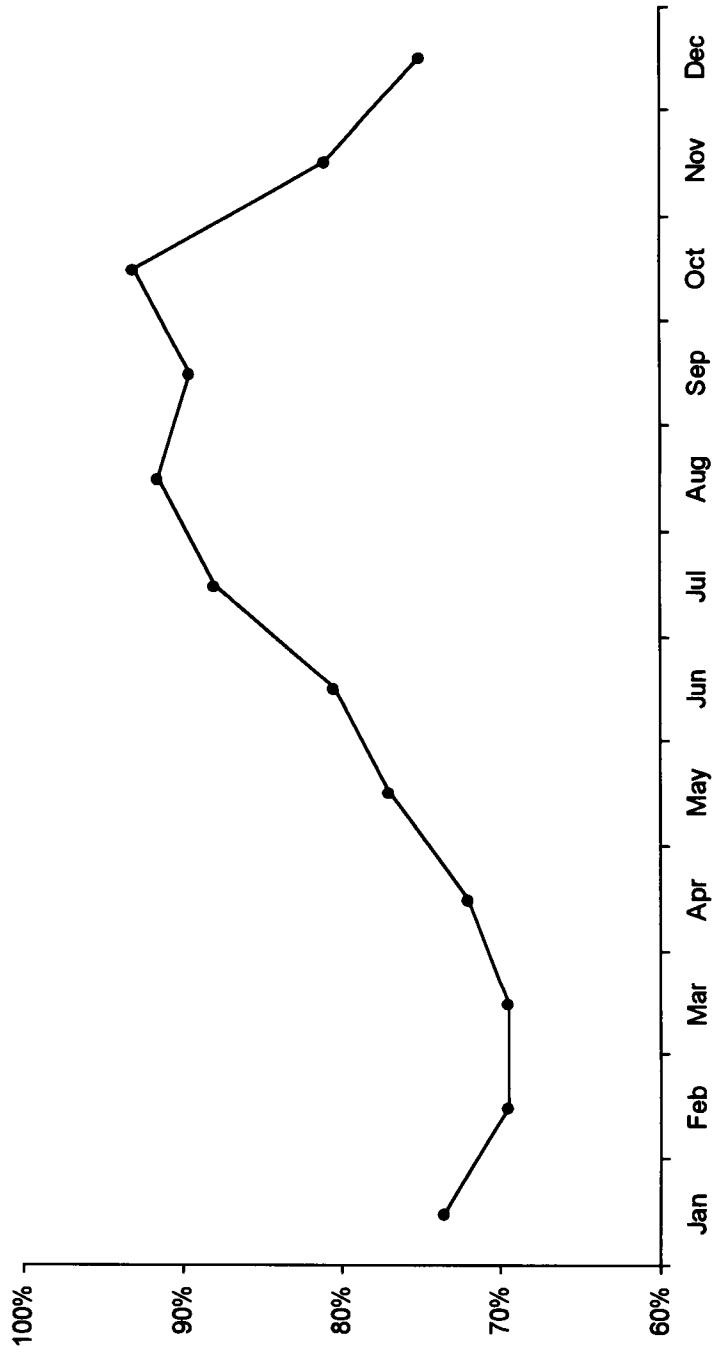
Source: Standard & Poor's DRI, World Sea Trade Service, 1Q99.

<sup>1</sup>Average cost per FEU is \$500-\$800.

## The transpacific trade: Market dynamics

**The container imbalance problem is compounded by the peak in demand for eastbound cargo space during July to October.**

Average Eastbound Transpacific Capacity Demand by Month – 1991-1996



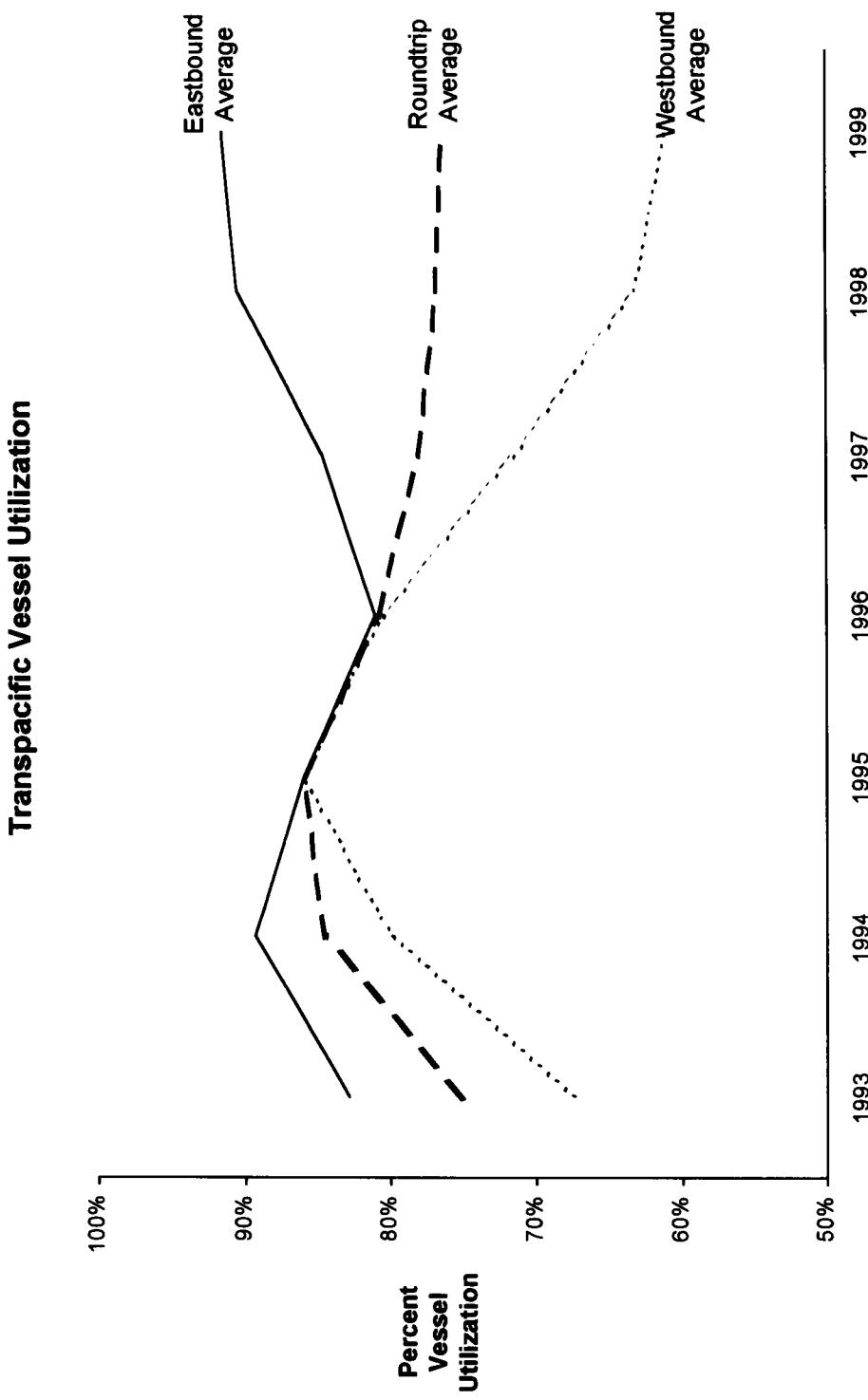
Source: Carrier statistics.

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## The transpacific trade: Market dynamics

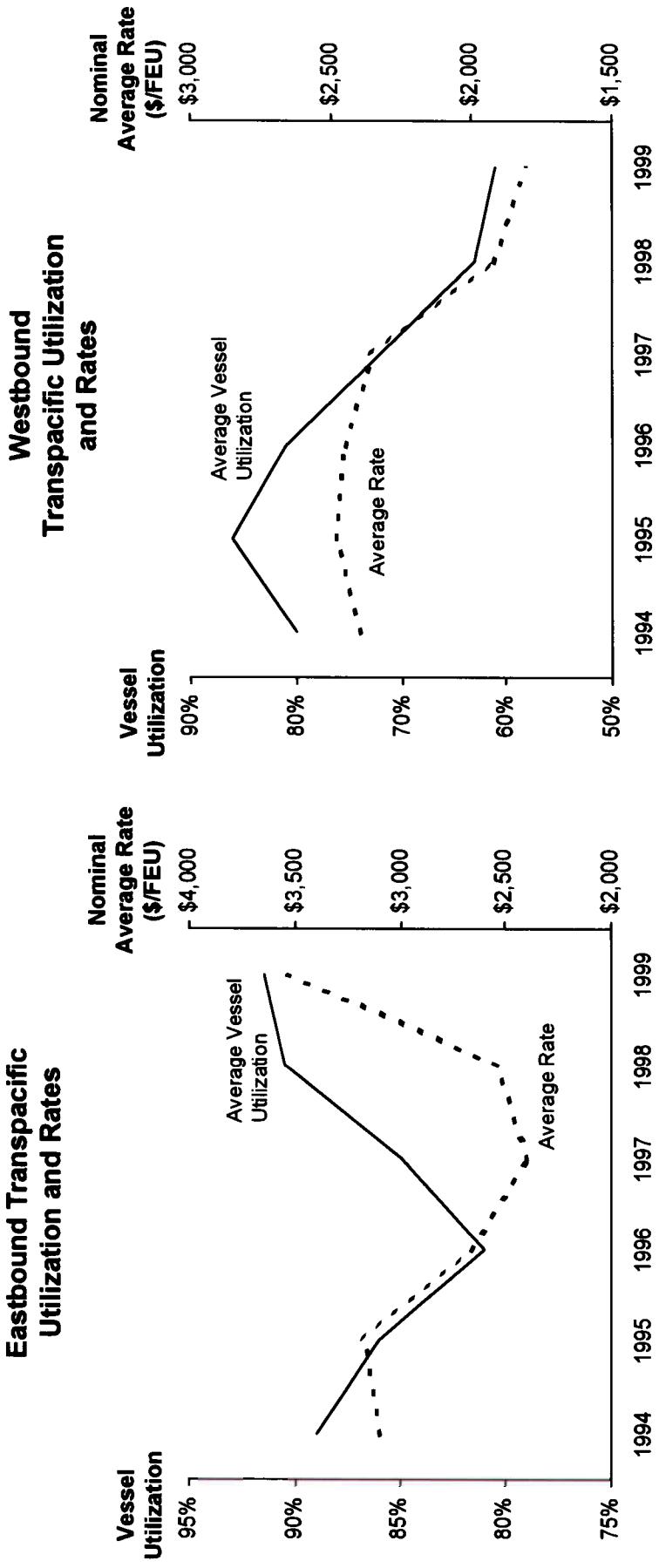
**While eastbound vessel utilization levels have risen steadily with demand, westbound vessel utilization rates have plummeted, causing overall utilization to actually decrease.**



Source: Representative carrier data 1993-1998; Mercer estimate for 1999.

## The transpacific trade: Market dynamics

**The excess demand on the eastbound leg supports the proposed rate increase of \$900-\$1,000 per FEU. Weak demand westbound has caused a mirror image decline in westbound rates.**



Source: Representative carrier data; Mercer estimates.

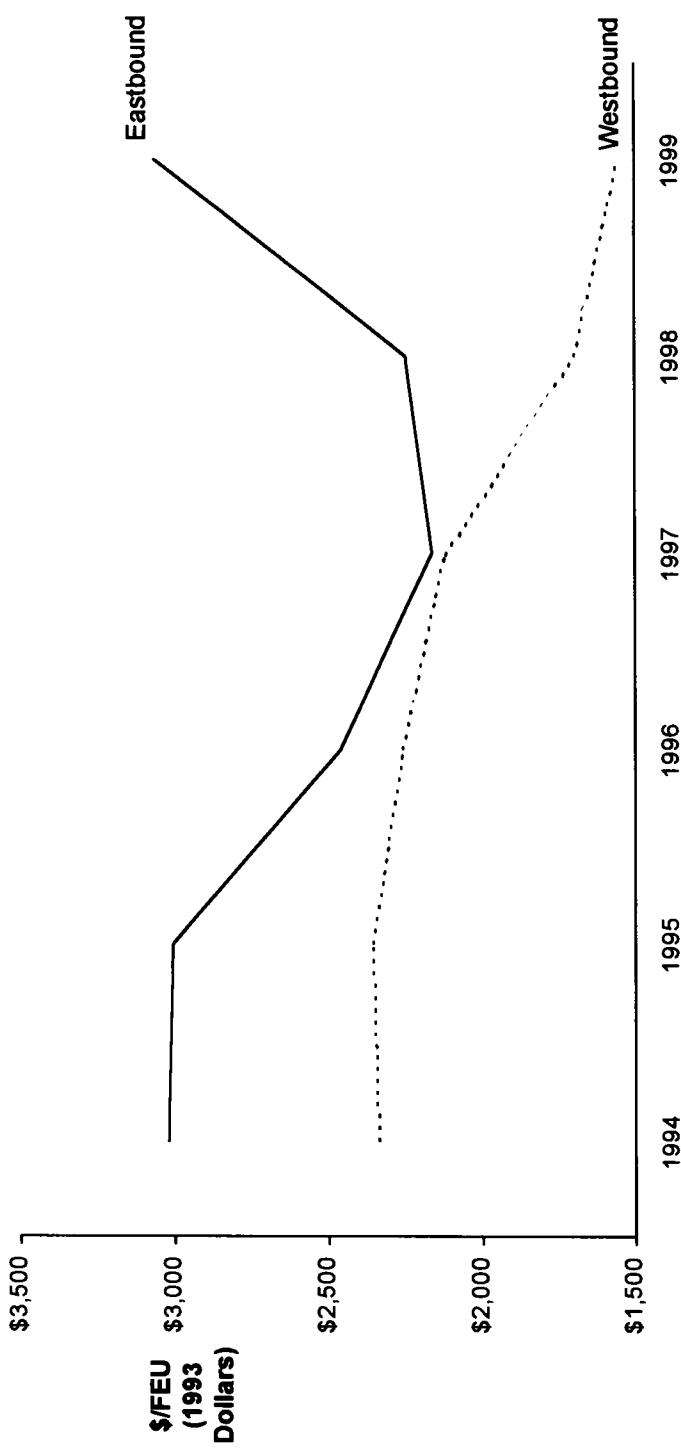
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## The transpacific trade: Market dynamics

**Adjusted for inflation, 1999 eastbound rates (with the rate increase) will just reach 1995 levels. Inflation-adjusted westbound rates, which fell by 29 percent from 1995 to 1998, are expected to decline further in 1999.**

Transpacific Rates (Inflation Adjusted)



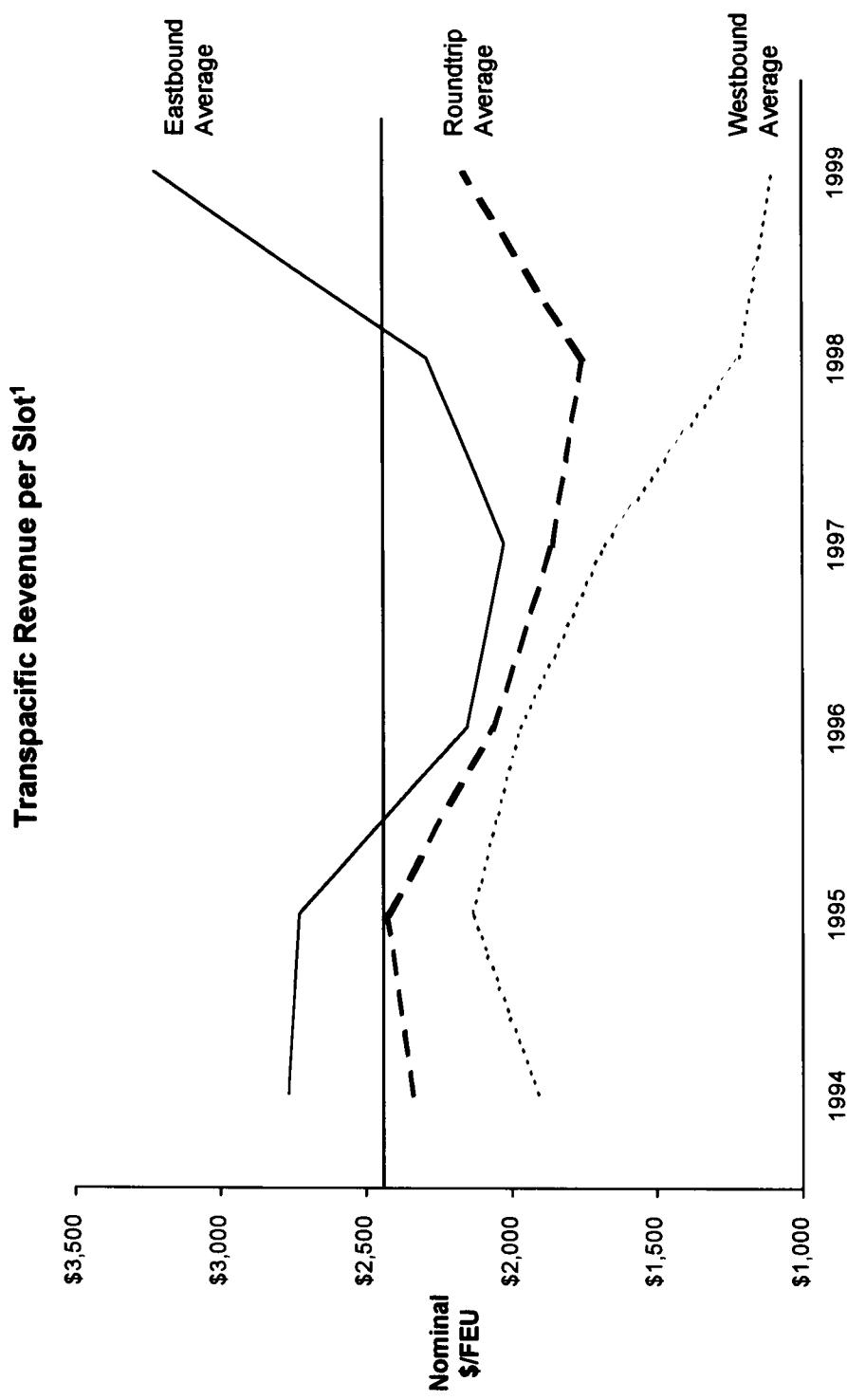
Source: Representative carrier data; Mercer analysis.

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## The transpacific trade: Market dynamics

**Declining rates in both directions cut average transpacific revenues per slot by 28 percent between 1995 and 1998. Even with the proposed rate increase, average 1999 revenue per slot will be less than in 1995.**



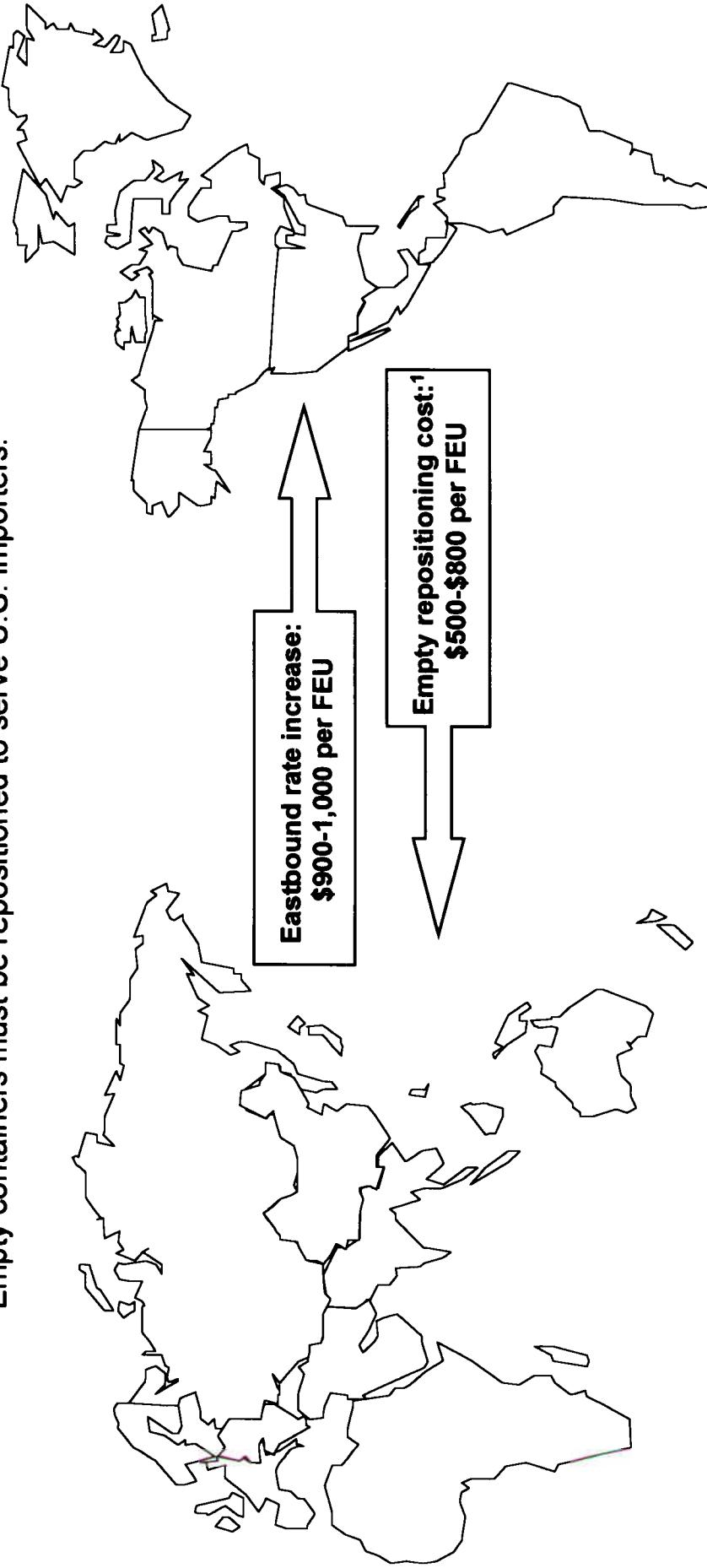
Source: Representative carrier data; Mercer estimates.

<sup>1</sup>Average revenue per FEU weighted by average utilization.

## The transpacific trade: Market dynamics

### Much of the proposed rate increase will be absorbed by the cost of repositioning empty containers back to Asia.

- Empty container repositioning costs account for almost 50 percent of total westbound costs.
- Empty containers must be repositioned to serve U.S. importers.

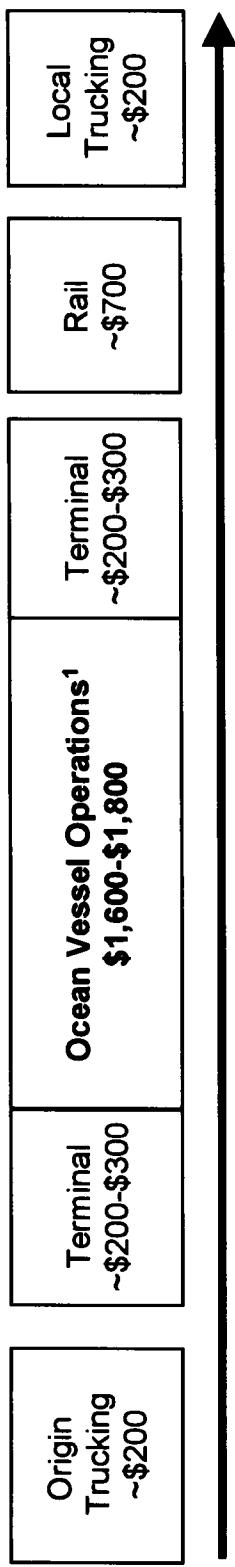


<sup>1</sup>Approximately 1 million FEUs in 1999

The transpacific trade: Market dynamics

**Ocean shipping is only one component of total shipment cost . . .**

**Representative Cost to Move A 40-Foot Container  
from China to Chicago**



Source: Mercer estimates.

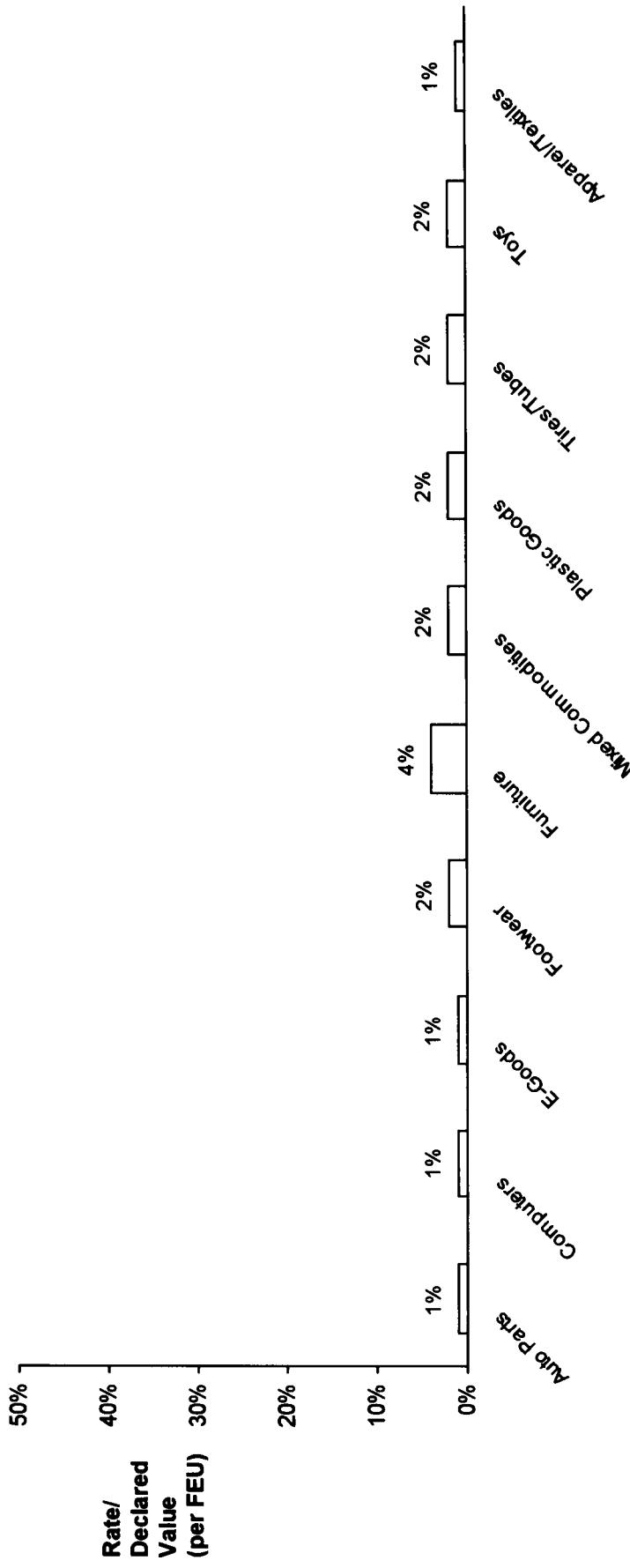
<sup>1</sup>Prior to rate increase.

## The transpacific trade: Market dynamics

... And eastbound transpacific rates are typically less than 5 percent of declared cargo value.

- In most cases, the proposed eastbound rate increase will add only 1-2 percent to declared value.

Change in Freight Rates as a Share of Commodity Value from 1998 to 1999 (Projected)



Source: PIERS; carrier statistics.

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## The transpacific trade: Market dynamics

**The impact of the proposed rate increase on the retail cost of goods to U.S. consumers will be minimal.**

**Selected Transpacific Imports**

Commodity	Estimated Midrange Retail Price	Impact of Proposed Increase	Percent Increase in Est. Retail Cost
• Stereo speakers	\$100-\$300	\$1.11 per pair	0.4-1.1%
• Cordless phones	\$30-\$130	19¢ each	0.1-0.6%
• Cookware	\$10-\$100	53¢ each	0.5-5.3%
• TV/VCRs	\$200-\$300	\$1.11 each	0.4-0.6%
• Computer monitors	\$200-500	\$1.62 each	0.3-0.8%
• Shirts	\$25-50	13¢ each	0.3-0.5%
• Fashion dolls	\$10-\$40	6¢ each	0.2-0.6%
• Athletic shoes	\$50-\$100	15¢ per pair	0.2-0.3%
• Toy cars	\$1-\$2	0.004¢ each	0.04-0.02%

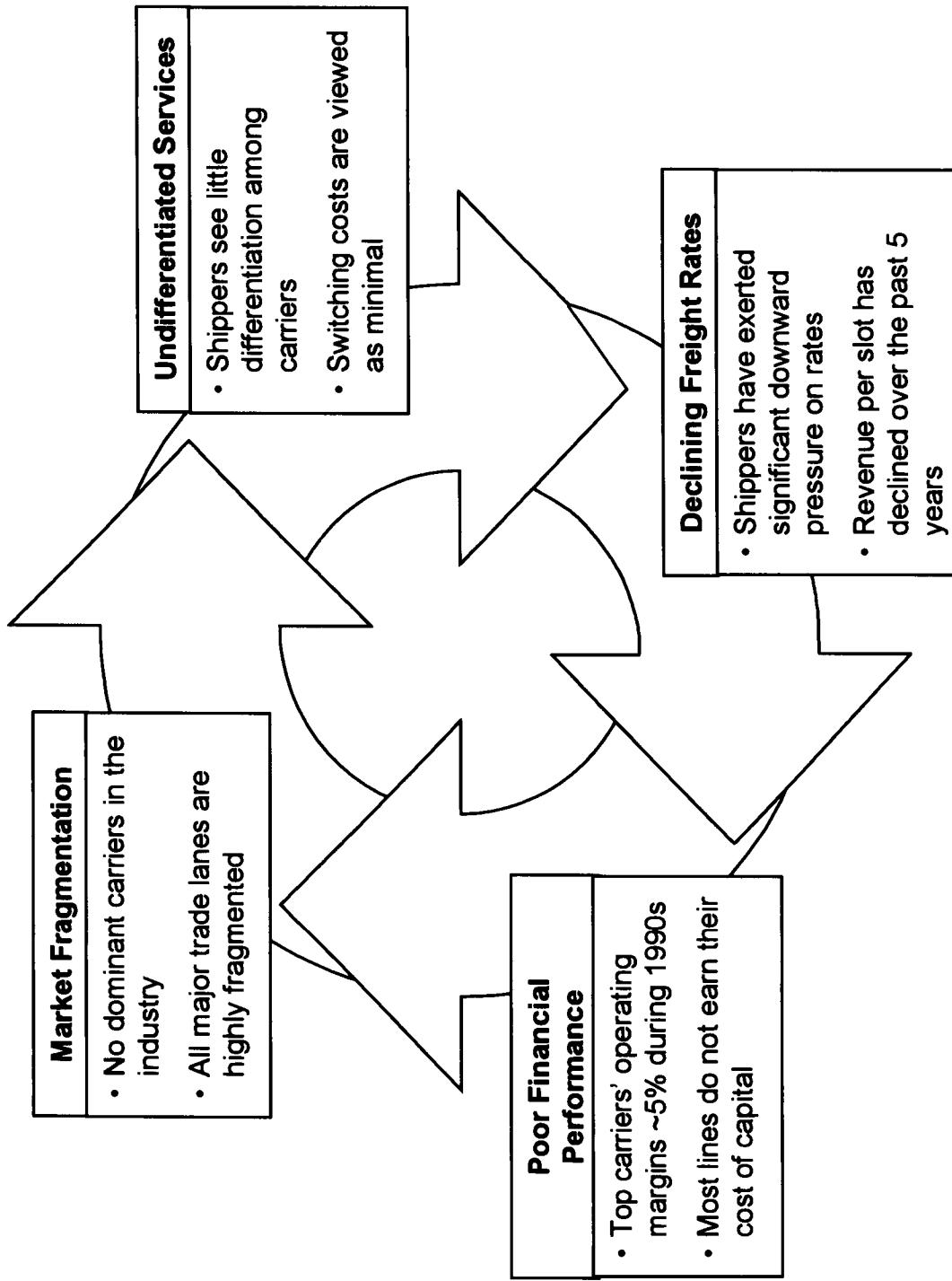
Source: Industry statistics, advertised retail prices.

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### C. Conclusion

**Market fragmentation, a perceived lack of differentiation in services, declining freight rates, and poor financial performance have created a “vicious circle” for liner shipping companies.**



## Conclusion

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**The transpacific eastbound rate increase and westbound rate decrease are concrete examples of demand-based pricing, which is common to many industries.**

**One of the primary objectives of the Ocean Shipping Reform Act of 1998 (OSRA) was to promote market-based pricing within the liner industry.**

## Conclusion

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**The liner shipping industry's economic performance is typical of an industry in which intense competition has kept rates low – not one with unbridled pricing power. In order to survive in this competitive environment and invest in service improvements to meet the needs of its customers, net revenues must cover long-term costs.**