applies, "be careful of what you ask for—you might get it." There are few, if any, ocean carriers that would deny that they are losing considerable dollars in the intermodal portion of their business. The only exceptions may be Sea-Land and possibly American President Lines (APL) or American President International (API). While the Shipping Act allows ocean carriers to quote point-to-point inland rates, it does not allow them to work in concert with one another to lower inland costs. The 1984 Shipping Act does allow ocean carriers to space-share, rationalize, and collude on all things except inland operations. This requires third-party involvement.

How large is this international intermodal market in the United States? The total container market in the United States is about 9 million TEUs a year—more imports than exports, although this is in the process of switching. Half of those imports and exports come from the Far East, about a quarter from Europe, and the rest from other parts of the world. Some people don't realize how much shipping in intermodal containers occurs in the United States. The president of Santa Fe said that 37 percent of their revenue comes from intermodal freight. This is a considerable amount of revenue for a major railroad. In 1990, 6 million loaded trailers moved by rail, and approximately 55 percent of the total rail trailers were containers. The trailers that were not containers contained prior or subsequent waterborne cargo that required transloading in the port areas. When truckers hear the size of this intermodal market, they are surprised and amazed.

Most carriers are having a hard time showing profit on intermodal movements. Why? Inexperience, possibly. Moving intermodal containers creates a tremendous container imbalance. Often 40 percent of the containers moving intermodally are moving empty. This is a tremendous cost factor and an issue that must be addressed. The medium and small carriers lack the kind of volume necessary to negotiate the low rates that larger carriers would get from railroads. This is a big factor. It is very hard for a medium carrier, whether it be American or foreign coming to this country, to try and get the bargain rates that CSX could supply or APL could supply.

The biggest single economic happening in the intermodal business is the double-stack trains. These trains have cut line-haul costs virtually in half, and this is extremely significant. If you are a strategic planner, it is not hard to predict that double-stack trains are going to move all over the United States because economics say it is going to happen. If a trucker is running line-haul costs of a dollar per mile, and in some cases double-stack trains are moving for 40 cents a mile, this is very, very significant.

How will all these economic factors come together to benefit the shipping public? We don't know, but it is through conferences like this that these things should be addressed. There is a tremendous future for specialized effective intermodal transportation. The way that the Act is currently structured doesn't allow the small carrier to get the benefits of volume that the larger carriers receive. This is not to say that third parties can't come along and fill that role, in fact, this is what is happening today. CSX is a third party. API is a third party.

What role should the government play, if any? What kind of strategic planning should you be doing if you are an ocean carrier? What kind should you be doing if you are a railroad? Or what kind should you be doing if you are a trucker?

Truckers will have to purchase domestic containers. Wherever and whenever there is an economic edge, such as in the double-stack trains, then you are likely to see innovation evolve.

FOCUS ON MEGATRENDS THAT WILL AFFECT THE MARINE TRANSPORTATION SECTOR

Hugh Randall, Senior Vice President
Temple, Barker & Sloan, Inc.
Lexington, Massachusetts

Our frame of reference is based on a lot of work done on a continuing basis for carriers, suppliers, ports, and shippers all over the world who are involved in maritime transportation. The perspective is global—it is not U.S.—because shippers and carriers think globally.

World Trade

World trade will continue to increase. The largest trade market is North America-Far East, a quarter of worldwide container movements. The second largest trade market is Europe-Far East, and the third largest trade market is North America-North Europe. Inter-Asia is growing rapidly.

Trade will increase in the next 5 years more rapidly than from 1985 to 1990—a projected growth of about 6.6 percent per annum, which is pretty aggressive. It is not the same all over the world. The mature nations are not growing as rapidly as the developing or newly industrialized countries, but Europe, which grew at 2.3 percent from 1985 to 1990, will actually increase up to 2.7 percent because of the impact of European Community

(EC) '92 and the opening of Eastern Europe. The rate of growth for developing nations will continue to increase, first, in raw freight volume. Second, despite the fact that developed countries have containerized their traffic, the newly developing countries are transitioning from bulk to container, and this is driving part of that growth. In the newly industrialized countries of North Korea, Thailand, Singapore, and Taiwan, the growth rate has tapered off from a rapid growth period during the 1980s, declining to only 6.2 percent per annum for the next 5 years.

The volumes to the Far East, which grew rapidly during 1985 to 1990 period, will taper off in the next 5 years but are still growing at a rate of 5.8 percent. For North American to North Europe, the exports that grew rapidly in the eastbound direction to Europe will also taper off. The inter-Asia trade market is the most rapidly growing in the world and is also profitable for the carriers.

Shipper Demands

Shipper demands on carriers are increasing. In the world of global logistics, shippers are changing their strategy. There are some attempts to move toward centralized sourcing to reduce the number of transportation suppliers. This task is difficult but certainly the trend. Quality is more important. There is increased external sourcing of the logistics functions. There is a tighter production line with less inventory in the channels as the JIT environment, which is being driven by the availability of information systems on a global basis. There is increased emphasis on flexible manufacturing and distribution. All these trends are affecting what carriers have to do to compete.

First there was six-day-a-week service, then—with the growth of intermodal—people began operating on a door-to-door basis rather than port-to-port. Now to be in a preferred position with global shippers, we are having to begin to offer things like consolidated inland transport, warehousing distribution, Electronic Data Interchange—moving towards that elusive one-stop shipping capability that a lot of people are trying to attain, but which nobody has yet. Shippers haven't demanded it, so nobody has made it happen, but that is the way the trend is moving. Shippers' willingness to pay for superior service and extra features is still somewhat limited, which is a dilemma for the carriers.

Market Conditions

Market conditions should improve. Good news for the carriers may not be good news for the shippers. The relationship of vessel capacity supply to demand for that capacity is going to tighten up in the 1990s. It is not now in particularly good shape on a worldwide basis but it is beginning to tighten.

For trade, trans-Pacific eastbound from Far East was in good shape through most of the 1980s but has slackened off with the relative slowdown of the rate of import growth from Asia. It will begin to tighten up again going into the 1990s and should be at capacity by 1994 and 1995. In the reverse direction, it is already pretty close to capacity, at 77 to 80 percent, and this is because it is heavier cargo being exported from the United States. This should be very tight through the mid-1990s. Trans-Atlantic traffic exhibits no real change. It has been a soft market in both directions for years and it does not look like it will change. Europe-Far East is a rapidly growing trade, and the tight direction there is westbound from the Far East to Europe, and at 93 to 94 percent an effectively sold-out condition persists so this trade is already tight. The trade going in the opposite direction—from Europe to the Far East—is soft but it will tighten in the 1990s.

A new building constraint is driving this tightening up. On a worldwide basis, the shipyard business was soft for the last 5 years and many yards closed. Government subsidies to state-owned yards in places like Japan and Korea were reduced. Now there is a demand for not only new builds on the container side but also the worldwide tanker fleet needs to be renewed. That will ensure that shipyards are at capacity for many years to come. Not much can happen in the short term to change this. Tanker life is 20 to 25 years, but right now if you went to order a container ship, delivery would take 2 years; it will cost nearly twice what it was 3 or 4 years ago for the same ship. Shipyard labor capacity is already pushed, and within a couple of years shipyard berth capacity will be pushed. A ceiling has been imposed on the amount of additional capacity that can be added, and world trade is continuing to grow—this spells good news for the container shipping industry.

Orders placed for new builds over the last 7 years indicated that the price per ship has been increasing about $1.00 per TEU. The charter rates are going up at about the same rate.

It is not all a good picture for the liner companies. After enjoying the benefits of reducing unit costs during the 1980s, driven in large part by the reduced cost per TEU of larger vessels, smaller crew sizes, and fuel prices that were dropping, unit costs are beginning to go up. There are now increased asset ownership costs caused by the increasing cost of new vessels and also by fuel prices that will go up in the 1990s.

There is tighter capacity and unit costs are increasing. The outlook for rates in the major liner markets is reasonably positive from a carrier perspective. The westbound rates have been climbing in the trans-Pacific and will continue to climb. There is softness in the eastbound market, but in another year demand and supply should begin to get to the point where the eastbound markets will begin to improve. The abysmal levels of eastbound trans-Atlantic rates—as on United States westbound—starting from very low levels, are now rising. In what used to be the head haul direction, westbound, the rates will remain fairly soft throughout the next 5 years because there is just too much tonnage on the Atlantic, and there will continue to be despite all the partnership deals. The west-bound direction in the Europe-Far East market is tight. Rates will climb rapidly and they will also start to rise eastbound.

It is interesting that the Europe-Far East went through a period about a year ago when capacity was reasonably tighter, and there was a perception that other carriers were cutting rates. The psychological impact drove the rates down in whole trade in both directions even though there was not much of an over-capacity situation.

Regulatory Environment

The liner shipping industry is changing. As a whole, the industry has not been earning its cost of capital and that has caused changes in strategy that are now being seen. Obviously, the industry has to do something about this. As you look at the evolution of carrier management strategy, this deterioration has gone on since the 1970s. Approaching the 1990s, the carriers are broadening their service packages, extending the scope of their service, becoming more global, and beginning to compete in ways other than simply through the provision of fixed assets such as iron and steel. They are emphasizing systems, people, and quality. They are growing. There is still a question of profitability but it is getting somewhat better.

The industry is becoming concentrated. The slots that are controlled by the top 20 liner carriers have grown from 32 percent in 1984 to 39 percent in 1990. The positions of the top 20 ratings have changed over the last 15 years. The percentage encompassed by the people at the top is getting higher and higher and the Asian--controlled portion of the liner industry is increasing.

Partnerships have picked up a lot of steam in some trades recently. Partnerships have been an accepted way of doing business in the Europe-Far East trade for a long time, but the sea-land partnerships in the North Atlantic with the Atlantic class vessels worked so well that other carriers have begun to pair up. The carriers find that partnering is a way to increase their attractiveness to shippers, to work on the denominator of the return on invested capital, and to reduce the asset base. So the base of competition is changed. It is not on assets anymore but on the management systems, networking, and ancillary services.

Some of the major liner companies around the world have diversified. In Europe it has been a catastrophe for some operators. They tried to do too much too fast and they lost money. But this is the direction of the major liner companies. They are moving inland; gradually moving into warehousing and distribution, and getting into the terminal services business because terminals in certain parts of the world (in places like Hong Kong) are becoming a scarce commodity. If you can control terminal space and bring others into your terminal on a fee basis, you can make a good profit. Some carriers are even going into air cargo.

Conclusion

For the smart operator, the 1990s should be a good decade.

Questions & Answers

* How will the lines branch out into terminals, etc., and still keep the asset base stable?

By investing in people and systems and using other people's assets.

* Where are all the new ships going to be built?

Japan, Korea, Portugal, Spain, Brazil.

* Is there any future in the American shipbuilding industry?

Not really.

* Any thoughts on where to get capital for shipbuilding?

Companies that must compete on a private sector basis are in an industry where everybody doesn't always play by the same set of rules. New building capacity is