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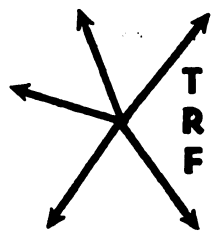

TRANSPORTATION RESEARCH FORUM

A HUNDRED YEARS AGO many UK/Continent liner operators found the money to build or dominate their own ports and terminals. Private ports were strong.

Then came the public ports open to all—financed by government bonds and taxes—planned by all knowing Port Authorities.

Now we have come full circle as many public ports can't cope. Private ports are appearing again. The pendulum began to swing to private financing in the 1800's—then back to public financing, tax exempt bonds and subsidies in the period between the two world wars —and now back again to private financing.

This paper offers scattered thoughts on an interesting and largely untouched subject. Hopefully it will inspire some student, Port Authority or Bank to do a proper analysis.

I THE HARDWARE

Sailing ships and early steam powered liners were content to handle their package freight on small narrow piers with aprons about three feet wide and sheds less than fifty feet wide. These were not expensive structures. Casual longshore labour, the shape-up and modest wages were part of this scene. Vessel owners were quite pleased to turn a ship in a week or so.

Then in the 1940's came the era of high labour costs—and even higher capital costs for financing ships. Fast turnaround and short port stays became essential. Suddenly the general cargo liner vessel of the post World War II period needed a shed 500 feet long and 100 feet wide—plus an apron 20 or 30 feet wide. The pallet became part of the growing world of mechanization. Liners of the 1950's spent two thirds of their dollars and time in port. This was the curse—and eventual death of the break bulk package freight system.

The evil box, Malcolm McClean's container, became the "miracle" of the late 1950's—the curse which disrupted all established patterns in the comfortable general cargo liner business. This spawned a new kind of terminal requirement involving Paceco type bridge cranes—about five acres of open storage—a big shed and a berth with 35 feet alongside. This package cost about $5 million a copy in 1955 and over $10 million today. Container ship operators dreamed of their own private terminals. However, they were too short of cash for this as they struggled in a competitive jungle with too many containers, too many ships and too little cargo. Thus, while holding their noses, they accepted financing from Port Authorities and communities eager to capture the tonnage which they controlled.

Finally we revert to the simple ferry station approach. Containers, hobbled by restrictive labour agreements, have not quite achieved the miraculous savings promised by their advocates. Roll on/Roll off—(Ro/Ro) is the word. No more certain sign of this could be found than in the fact that a Ro/Ro convention will be convened in London in early July. Soon every port and industrial city in the world will be establishing Ro/Ro clubs, Ro/Ro societies, Ro/Ro magazines and Ro/Ro conferences.

However there is one important difference here. A Ro/Ro terminal need not be expensive. Indeed any bit of jungle shoreline offers potential. The stage is now set for an outburst of private general cargo marine terminals—or rather for an escape from the confusion, high costs and general frustrations found in almost every conventional port.

The foregoing is a scandalous oversimplification. Nothing is ever so complete or sudden. There still are today old-fashioned break bulk terminals serving 1930 style ships. This is especially true in less developed nations. The container development is flowering—especially on main line long haul routes touching Hong Kong, Singapore, the big U.K./Continent ports, Halifax, New York and San Francisco. We have danced upon the surface of the hardware and operating question—because it is the money situation which we wish to consider.

II SELF SUPPORT OR SUBSIDY

Public ports rose to power on the shoulders of "Impact Studies." These measured the benefits to a port community when a vessel called to discharge general cargo and take an outward load. It was easy to show that package freight being handled manually by longshoremen could enrich a port community by $10 or $20 a ton. If you speculated with each ship discharged two thousand tons and loaded a like amount—and if you multiplied by a factor of thirty ships a month you could conjure up tales of vast wealth and prosperity—even for a small port with a single pier.

Thus, throughout the world but especially in the U.S., Port Authorities (Commissions, Agencies and like organizations) were able to obtain financing from local communities, counties, states and national governments—without really worrying about balancing the books.

This matched a pattern in Canada/U.S. airport development under which

Money and Hardware for General Cargo Ship Terminals

*by J. L. Eyre**

the community benefits were seen as eliminating any need for matching revenue with expense.

In about 1950 the Port of New York Authority took the radical position that seaports and airports should cover their own costs. This was a thinkable proposition for a public agency whose bonds were tax exempt. In addition the Port Authority in New York had solid financial credibility with revenues from New York City/New Jersey vehicular tunnels and bridges (the Holland Tunnel, the Lincoln Tunnel, the George Washington Bridge, etc.).

Gradually port agencies in other parts of the world have struggled towards some semblance of self-support.

The cold facts of life in a modern world of container ships and Roll/on Roll/off vessels will accelerate this. With dock work now largely automated, it is no longer easy to talk about impact or benefits through creation of employment.

We will not comment on the financial logic which has guided Canada's National Harbours Board. However, most observers believe that the NHB in Canada has not recovered its full costs (capital, debt service, maintenance, overhead and insurance). Recent programmes suggest that an attempt is being made to recover a greater portion of what an accountant would accept as full cost.

The public ports with their greater access to financing have tended to wipe out private terminal competition—even though private terminals have often been more sensitive to the needs of the maritime industry.

It is of course dangerous to generalize on a subject which varies greatly as between Asia, Canada, Latin American, the Mediterranean and the U.K./Continent.

However, one can generalize on developments with regard to ships and seagoing hardware. These have turned towards brief port visits and extremes in automation. The most prominent vehicles are the lash barge ships, the container ship, and the now booming Ro/Ro vessel.

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Operators of Ro/Ro and container ships have reason to aim for exclusive control in their terminals. If they can gain exclusive control in a public facility they will do so. However the nature of a public facility argues against this. Hence the growing popularity of private terminals.

The capital costs of highly sophisticated container ships ($80 million or more each) argue that quick turnaround is worth paying a heavy price. This may be so important that the vessel operators of the next ten years will be willing to pay the full cost for non-government non-public facilities which they create, finance and control themselves.

Furthermore, most public ports have trapped themselves in congested downtown big city locations. Rio de Janiero, New York, Vancouver, Montreal, Toronto, Bangkok, Jeddah and New Orleans are but a few of the more gruesome examples of this. The dream terminal for a new Ro/Ro or container operation is likely to be ten miles away from Main Street.

III FORMS OF LINER GENERAL CARGO TERMINAL FINANCING

Bulk cargo terminals for iron ore, coal, petroleum and construction materials have historicaly tended to be part of large industrial systems. These have been financed in the normal private enterprise debt/equity manner. Public agencies have built some bulk cargo terminals as industrial development or area promotion devices. These, however, always face the criticism that public funds are being used to create low cost private plant facilities for private industries.

Generally speaking large steel, aluminum and coal companies have been willing to pay a good price for the privilege of dominating and controlling their own marine terminals.

We have already indicated that public ports and port facilities have tended to live on government (City, State, Province or Federal) bonds not too closely related to the income of the facility in question.

In Third World developing nations the World Bank (IBRD) has stressed port facilities and made a variety of hard and soft loans available. In the

early days the World Bank did not insist too strongly that port charges be high enough to cover costs and loan amortization. More recently they have stiffened their stand, as indicated by their suggestion that port charges in Trinidad should be radically increased before a container terminal is financed.

Other development institutions such as the Asian Development Bank and the Caribbean Development Bank have been less stringent. They have seen port projects as windows leading to economic recovery and industrial development. Thus private or commercial bank financing finds little opportunity but much competition in the LDC's.

Note however that private financing is a factor in the new container terminal in Hong Kong. Note also that private financing is beginning to appear with emergency port facilities on the Red Sea and in the Arabian Gulf. Here we are dealing with port facilities built some distance from the old central city ports—and often for special projects. These closely resemble the emergency port facilities built, (again with private financing on the north slope of the Arctic.

Another interesting example may be found in Halifax where the DART Container Line joined with public agencies to finance and create a most successful new container ship terminal.

CONCLUSION

It would be easy to conclude that the era of cheap money and public general cargo ports is fading—and that privately financed special Ro/Ro or container ports will be created by private shipping organizations.

The flaw in this theory lies in the fact that the shipping companies themselves are tending to become public government oriented enterprises. The last thirty years have seen a flood of new "national flag" carriers such as Lloyd Brasilero, the Argentine and Venezuelan state lines. These were virtual government agencies—suffering from all of the ailments that go with such outfits.

More mature members of the Third World maritime community are beginning to see the evils of government operated general cargo commercial shipping enterprises. We may soon see a return to private "national flag" ship operations as exemplified by the very sound Netumar (Brazil) and Scindia (India) lines.

Thus I conclude that private commercial banks will finance a fair number of general cargo liner terminals throughout the shipping world of the next ten years.