THE ROLE OF FINANCIAL INSTITUTIONS IN SHIPPING MARKETS

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Lending and leasing institutions generally play only a passive role in the operation of non-financial markets, facilitating (through term loans or leases) any expansion of supply that might be required to accommodate growth in demand. Organizations involved in the raising and deployment of equity funds quite often provide resources for expanding supply in anticipation of increased demand. Lenders, however, as distinct from investors, typically shy away from projects aimed at increasing the supply side of a market unless there is a tangible commitment, from reliable quarters on the demand side, to utilize the new supply.

It must therefore be a somewhat startling experience for senior banking officers to read articles in the trade press which suggest that the current surplus of ocean shipping capacity has been caused, to a considerable extent, by the too-easy availability of loan and lease funding. To be sure, the confessions and accusations of shipping bankers in such articles as the survey published in Seatrade magazine for March, 1986 usually assign more blame to governments (for subsidizing the shipbuilding industry) than to the commercial lending and leasing community. Hardly anyone close to the shipping business now denies, however, that much of the current surplus stems from a widespread unwillingness on the part of commercial bankers and lessors to restrict their support of newbuilding activity to situations where specific volumes of incremental cargo offerings clearly underpin decisions to expand supply.

It will be argued in the following paragraphs that unwitting subsidization of the shipping industry by commercial sources of finance has, in fact, contributed more to the parlous condition of both shipping and shipbuilding than government subsidy programs. This thesis leads, in turn, to a forecast that, barring a trade recession, shipping markets will improve in line with the more enlightened approach to ship financing which is emerging from the present crisis.

I. Global Shipping's Financial Parameters

Unlike such industries as steel and petroleum, world shipping is extremely fragmented, with individual shipowning groups typically accounting for much less than 1% of total world capacity. As a consequence, aggregated financial data exists only in the form of very broad estimates.

One such set of estimates was published by the author of this paper in 1983. The key calculations had to do with industry debt and the insufficiency of earnings on a global basis to retire that debt on schedule. Despite the fact that no consensus exists as to the validity of these 1983 estimates, they are reproduced herewith:

	Billions of U.S. Dollars (Values as of mid1982)
Replacement cost of world cargo fleet	250
Second-hand value of world cargo fleet	100
Total Term Debt Outstanding	60-70
1982 Cash Flow from Operations	15-16
1982 Scheduled Principal and Interest	18.5-21.5
1982 Cash Flow Shortfall	(2.5-6.5)

In very round numbers, continued operation of the world fleet in 1982 appears to have required either an equity injection of roughly $5 billion or the deferral of a similar amount of debt installments or a combination of both of these. Although the containership business enjoyed a very good market in 1984 and the tanker market had quite a fillip in second-half 1985, the fact is that overall cash flow from world shipping operations has been essentially similar in the years 1983-86 to what it was in 1982. In effect, in other words, the industry has had to find equity averaging close to $5 billion per year in each year since 1981. Much of this equity has actually been provided by commercial banks and lessors in the form of loans charged off and assets written down; last year, for example, three Japanese banks wrote off some $700 million in loans to just one shipping company.

No-one knows how much equity is left in the shipping industry. Obviously, some cash had been piled up during the relatively high freight markets of 1979-81. Besides, in mid-1982, there was a difference of about $35 billion between the aggregate sale price and the funded debt of the total world fleet (a difference which has since melted away to nothing). Some private shipowners, especially among the Greeks, continue to maintain cash balances equal to or larger than their mortgage debt. A recent check with one of the principal free-flag registries has revealed that roughly one third of the tonnage registered under that flag is mortgage-free. It has even been possible in recent months, despite steadily declining freight rates for such key cargos as iron ore, coal, and grain, to raise small amounts of new equity capital for one or two owners from sources outside the shipping industry.

All the same, it is hardly to be imagined that an industry which has swallowed up $25 billion of equity capital in the last five years will be able to recover the $10-billion-a-year pace of investment in new ships which characterized the 1983-85 period. Lenders who were willing to consider as much as 100% financing of new cargo ships as recently as last year are now thinking in terms of 40%-60% advances. Shipowners themselves, those who are confident of being survivors, would rather commit their carefully-hoarded cash resources to the purchase at dirt-cheap prices of modern second-hand ships than to new vessel construction.

It has become clear (in mid-1986) that not only have freight rate indices, newbuilding price levels and second-hand ship prices reached a nadir, but also the overall appetite of suppliers of debt and equity capital to the shipping industry. Shipowning as a business will survive, of course. But the restoration of an appropriate balance between the industry's debt and its equity will take not only the passage of time but an increase in the level of freight rates more substantial than is anticipated by most of those responsible for purchasing ocean transportation.

II. The Extent of Government Subsidies to Shipping and Shipbuilding

Since the early 1970's, a number of reports have been commissioned aimed at quantifying the costs to taxpayers of the various schemes maintained by governments to encourage the development and maintenance of merchant shipping and shipbuilding capacity. Although the estimates of aggregate costs provided by these reports vary widely, this has less to do with the timing of the research than with the definition of subsidies. In any case, nothing in these reports begins to make clear how a world subsidy regime which remained essentially unchanged between 1970 and 1985 was able to stimulate the ordering of 130 million deadweight tons (DWT) of new carrying capacity in 1973, but a mere 10 million DWT in 1978, 12 million DWT in 1982, and an average of 25 million DWT per year in the three-year period ended December, 1985. The truth seems to be, rather, that the ordering of new ships has been much more a function of current and generally-expected freight rate levels than of the availability of government subsidies. Indeed, most shipbuilders have a ready supply of graphs which demonstrate the close correlation between high freight rates and a high volume of newbuilding orders.

Those observers of the shipping scene who argue that government subsidies are the main cause of overbuilding claim that the full extent of these subsidies globally is many billions of dollars a year. Researchers in more neutral quarters have been able to identify unequivocally only a billion or two dollars per year as taxpayers' money being used as a direct reduction in the prices paid by purchasers of newly-built cargo ships. Thus the estimate of $2.5 billion/year used in the following analysis is likely to be viewed as unreasonable only by one or two shipowner associations whose compilations of data are clearly aimed at deterring any governmental support at all for any segment of the world's shipbuilding industry. The figure is roughly equivalent to 20% of the nominal aggregate worldwide sales of new cargo-carrying ships in recent years.

III. Cash Flow Impact of Shipbuilding Subsidies

Whether the average amount of government subsidy passed on to shipowners through subsidized shipbuilding prices is 20% or 40% will make little difference, in principle, to the aggregate volume of tonnage ordered in any one year. What might make a difference would be year-to-year fluctuations in the average amount of subsidy made available. Such a regime could stimulate orders when shipping market conditions were unfavorable and possibly deter some orders (through sharply reduced subsidy) when freight rates are at boom levels.From a global standpoint,

however, the subsidy machinery has been too cumbersome (because it is administered by about a dozen national governments, each hoping to benefit its own shipyards at the expense of competitive countries) to act as either accelerator or brake on the pace at which new tonnage is ordered. Detailed research would certainly show that price fluctuations generated by the ebb and flow of shipowner demand itself are of much greater amplitude than changes over time in the amount of taxpayer money made available for shipping and shipbuiding subsidies.

The fact that price increases posted by the world's shipyards during periods of high freight rates generally fail to dampen demand and that price reductions during sluggish trading periods fail to stimulate demand provides weighty evidence in support of the shipbuilders' theory that the prime determinant of newbuilding demand is the amount of cash flow being generated by current ship operations. Neither prices themselves nor the level of subsidy available influences shipowners' buying decisions as concretely, it would seem, as the current and currently predictable state of the freight markets.

It was suggested earlier that overall operating cash flow generated by the world's cargo fleet in recent years has been only about $15-16 billion per year before meeting interest payments and amortizing term debt. In the years before 1982, annual operating cash flow probably amounted to between $25 billion and $30 billion, which yielded $5-10 billion/year of cash available after debt service for dividends, taxes, and new investments. Of this latter amount, some $3 billion per year could be comfortably allocated to down-payments on newbuilding contracts aggregating $15 billion/year (20% cash prior to delivery and 80% payable after delivery being the more-or-less standard terms offered by shipyards). Nowadays there is no such thing, in the aggregate, as a comfortably positive free cash flow.

If it is assumed, for simplicity of calculation, that the current pace of ordering new cargo vessels is $10 billion per year, net of an annual $2.5 billion subsidy, then the cash-flow impact of eliminating the subsidy can be computed as follows:

(a) Down payment: 20% of $10 billion = $2 billion

But eliminating a $2.5 billion subsidy is equivalent to adding $2.5 billion to the $10 billion base price

Therefore: new down payment: 20% of $12.5 billion = $2.5 bill.

Incremental impact in one year of removing $2.5 billion subsidy: $0.5 billion

(b) To calculate the cash-flow impact of higher post-delivery payments resulting from elimination of the assumed $2.5 billion subsidy, assume equal amortization over 8 years of $8 billion and $10 billion, respectively. The incremental annual cash-flow impact is thus one-eighth of $2 billion, or $250 million. In addition there is a higher annual interest cost as a result of higher average balance outstanding.

(c) Adding together the three cash-flow impacts produces a total of between $800 million and $900 million per year (depending on the interest rate assumed) which shipowners

would have to find over and above their existing debt-service obligations if governments stopped providing the assumed $2.5 billion/year of shipbuilding subsidies.

IV. Eliminating the Incentive to Over-build

It can readily be demonstrated that the incentives to overproduction of cargo ships provided by liberal credit terms are approximately twice as large, on an annualized basis, as those generated by government subsidies. If the requirement for down payments were to be eliminated, for example,shipowners would be relieved of a $2 billion/year cash-flow burden (20% of $10 billion/year). Partially offsetting this cash-flow benefit would be the necessity of amortizing an incremental $250 million per year ($2 billion prorated over 8 years) and an interest-cost increase of $100-$200 million/year . On a net basis, the cash-flow impact of liberalizing credit terms by eliminating down-payment requirements would be about $1.6 billion/year as compared to the approximately $850 million/year impact of current government subsidies.

This relationship implies that the solution to today's problem of over-supply of tonnage in virtually every segment of the shipping market lies more in the hands of those who determine the pattern of shipbuilding credits than those who allocate taxpayer money to the subsidization of shipbuilding. On a cash-flow basis, increasing today's standard down-payment requirement of 20% of purchase price to 40% would have twice the impact of raising ship prices by 25% (to eliminate, effectively, the need for $2.5 billion/year of government subsidy). That is to say, the incremental $1.6 billion/year impact of doubling required down payments would be more likely to discourage ordering of new ships than the $850 million/year impaet of discontinuing government subsidies. This would be true even if the shipping industry were generating positive cash flow after debt service instead of the roughly $5 billion per year shortfall typical of recent years.

Many members of the shipping community, including bankers, are taken aback by the assertion that government-subsidized credit plays a relatively minor role in the overall pattern of shipbuilding finance. It is true that about a third of the output of Japanese shipyards, the portion that is sold to Japanese-flag buyers, is covered by credit arrangements more generous than the so-called standard OECD package of 80% deferred payment over 8½ years. Some smaller proportion of Korean production is also directed into local ownership by means of subsidized credit. All the same, despite these significant exceptions, 60% of the dry-bulk and tanker tonnage delivered by the world's shipyards in 1985 was built under contracts which included no subsidized credit arrangements other than commitments in some cases to hold interest rates to levels not exceeding 8½% or 9% p.a. An analysis of the ships still on order as of the end of last year would also show that at least 50% of them are being financed under arrangements which require no government support whatsoever.

SUMMARY

Those who share the concern of the author of this paper that something be done to eliminate, or at least minimize, existing incentives to build more cargo ships than are required to carry the world's commerce should therefore reconsider carefully the following relationships:

1. Changes in the structure of shipping credits can have a larger impact on shipowners' cash flow, and hence on the propensity of owners to order new ships, than changes in the prices of ships which result from direct subsidies.

2. At least half of the new ships on order and likely to be ordered in the immediate future will not be eligible for government subsidy (other than interest-rate equalization which, in today's environment, is essentially irrelevant).

3. The credit policies of commercial banks and leasing companies can therefore influence directly and enormously the volume of newbuildings in the years immediately ahead. If, for example, these organizations were to require 40% of the contract price of each new vessel to be paid from owners' equity funds at the time of delivery, shipowners contracting an annual $5 billion worth of new tonnage would have to generate $800 million/year more cash flow than if down-payment requirements were only 20% of contract price.

4. Most solutions to the over-tonnage problem which have been proposed since 1975 -- coordinated lay-up schemes, "scrap and build", "scrap and scrap", etc. -- have been dependent upon the willingness of governments to take coordinated action. These solutions therefore remain in the realm of wishful thinking.

It might also be argued that developing a common approach by banks and leasing companies to the problem of inadvertent subsidization by them of shipowners, shipbuilders, and cargo owners is also in the realm of wishful thinking. The counter-argument, however, is that changes in the credit policies of financial institutions vis-a-vis shipping can be effected by as few as two or three dozen businessmen, whereas changes in legislation in a dozen or more countries would probably require the support of thousands of decision-makers and influence-molders. Furthermore, the losses being recognized in 1985-86 by banks and leasing companies as the result of shipowner defaults are large enough and visible enough to senior managements of these institutions to stimulate, in any case, "agonizing reappraisals" of their ship-financing rationales.

CONCLUSION

The current shipping-market depression, which began nearly five years ago, is essentially a function of excess capacity. True, demand for oil transport during this period has declined, but demand for dry-cargo transport has grown and will continue to grow. Only last year did the pace of demolition of older ships increase enough to promise an eventual supply-demand equilibrium for both dry-cargo ships and tankers. As this equilibrium becomes generally perceived as being relatively close at hand, pressures to order new ships will build up rapidly. A firm resolve by financial institutions to support only those newbuilding contracts which have a relatively high equity content will both protect them from a repeat of the painful experience they are presently undergoing and ensure that cargo owners pay a sufficiently high price for transport that responsible shipowners will continue to have an incentive to remain in business.

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