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A COST-CENTER APPROACH TO LINER CONFERENCE FREIGHT RATES

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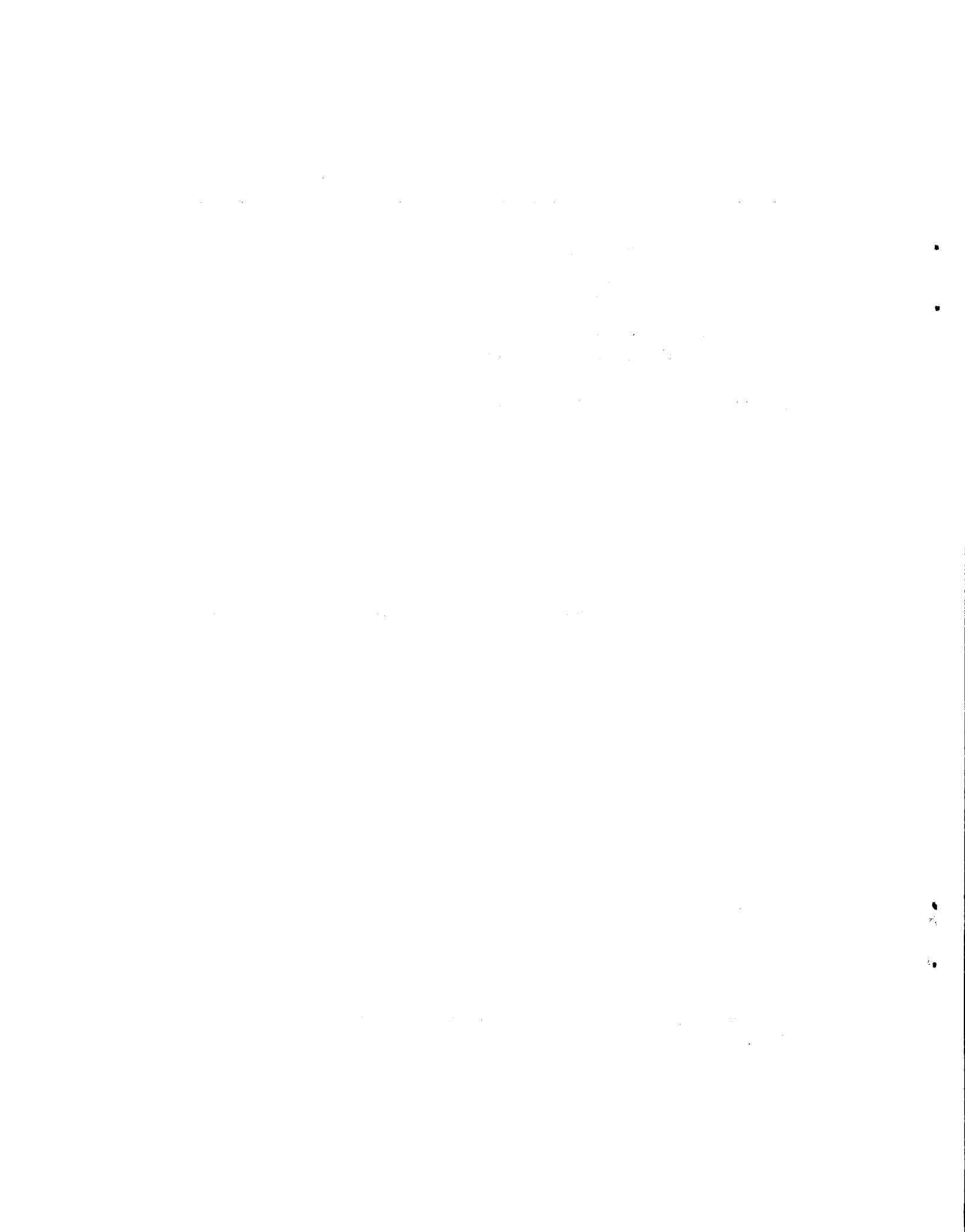
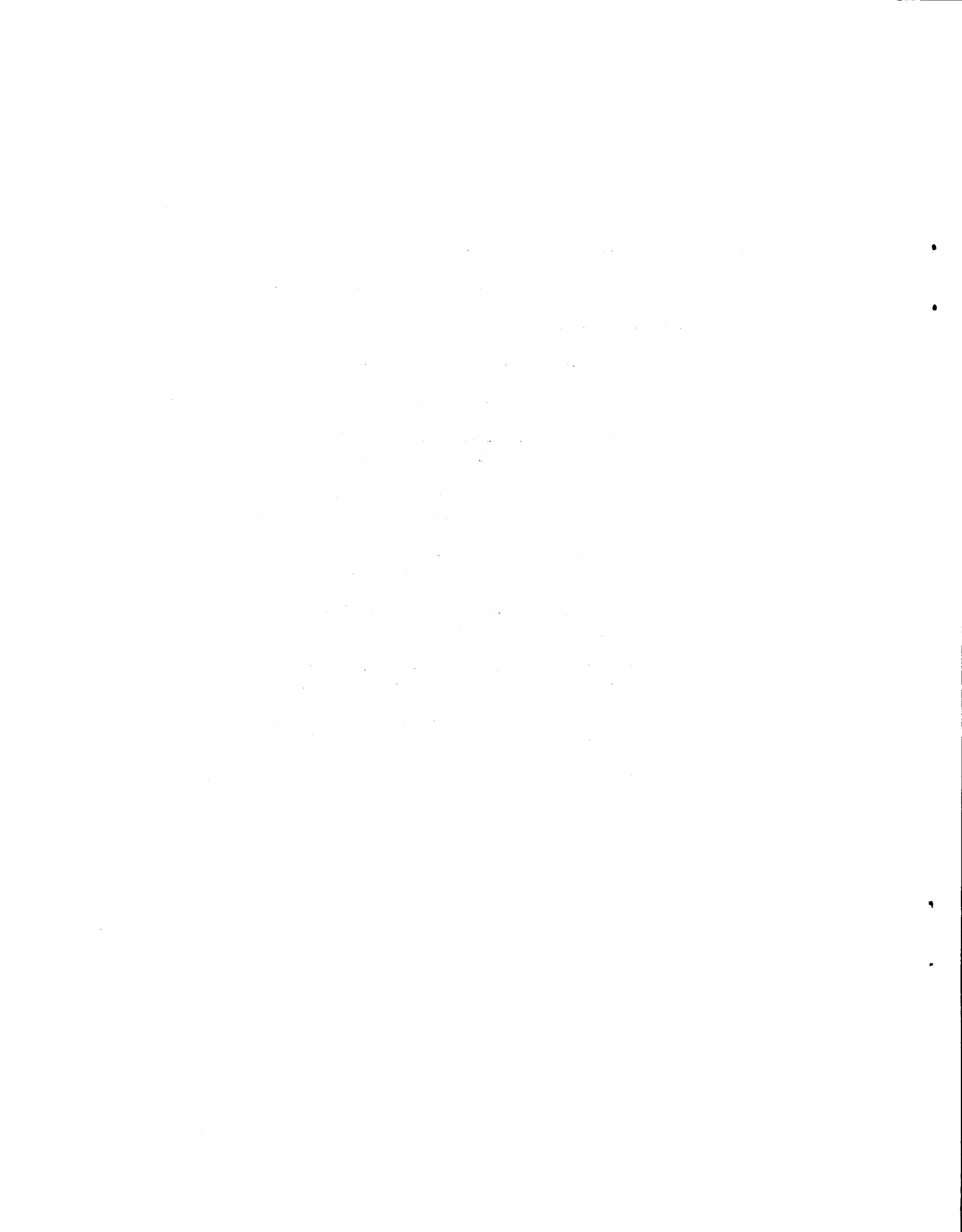


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Summary

As a result of the high percentage of fixed costs in ocean transport and physical capital of considerable longevity, shipping lines over a century ago began forming associations or conferences to establish minimum freight rates and rationalize the offer of transport services to assure an acceptable rate of return on investment. In the establishment of ocean freight rates, conferences have developed practices which aggregate costs such as loading, discharge and transport as well as averaging those for port and vessel operation.

The aggregation and averaging practices utilized by conferences for the establishment of freight rates have brought about much adverse comment from shippers and their representatives, and have created an opportunity for efficient non-conference carriers to obtain important market shares. Moreover, many governmental and international organizations have indicated a growing reluctance to allow liner conferences to retain their traditional freedom in the unilateral establishment of ocean freight rates.

In an effort to permit those persons involved in the ocean transport of goods to identify and control costs over which they have responsibility, the CEPAL secretariat proposes a partial disaggregation of ocean freight rates into three natural cost centers -i.e., those costs incurred at the port of embarkation, those at the port of destination and those for the transport of goods between such ports- without any change in legal relationships. The division of existing ocean freight rates into these three natural cost centers would not only permit a greater degree of control over individual cost elements but also create an information producing system for the use of shippers and carriers alike.

INTRODUCTION

Since exports, imports and economic growth are clearly interrelated, transport has a strategic role in the development processes of all countries. However, due to Latin America's geography, the composition of its trade and the location of its foreign markets, there are few if any alternatives to maritime transport for much of its international trade. As maritime transport accounts for over 90% of all Latin American exports, shippers and their representatives, export promotion committees and ministries of transport have become deeply concerned over continued increases in ocean freight rates. This concern emphasizes that, with growing specialization as a principal means to achieve national economic goals, efficient, low-cost maritime transport is a necessity. To avoid the risk that freight rate increases will make Latin American exports as well as those of other countries uncompetitive in foreign markets, it is necessary to investigate alternative freight rate structures which identify individual cost components and permit their control by appropriate persons in the transport chain.

Ocean transport is a highly capital-intensive industry which employs physical capital of considerable longevity. For example, while the international road transport industry has found that trucks have an average economic life from three to five years, the average economic life of a vessel is approximately 20 years. In circumstances such as these, a decision to purchase a new vessel is particularly influenced by the rate of return on capital and methods which may be utilized to insure such return. One method employed by shipowners to assure an acceptable rate of return is through the formation of associations or conferences among all shipping lines serving a particular trade.

Ocean liner conferences can be traced back to 1868, when representatives of five shipping lines which had been competing with each other for the lucrative North Atlantic cargo and passenger traffic met at Liverpool, England, to discuss a uniform freight rate structure that could benefit each company and eliminate rate reductions to attract business.^{1/} As a

^{1/} Via Port of New York - New Jersey, October 1980, p. 4.

result of this meeting, a listing of minimum ocean freight rates for the transport of cargo and passengers was adopted. Due to the success of this liner conference in terminating harmful rate competition, assuring an acceptable rate of return on invested capital and providing a regular offer of ocean transport services, similar conferences were established in other trades until today they are utilized for all ocean transport services except those for the carriage of merchandise in bulk.

Conferences have subsequently evolved numerous means other than minimum freight rates and rationalized schedules to assure an acceptable rate of return, such as common pricing, rebating, presenting aggregated and averaged liner freight rates, and a substantial amount of cargo and revenue sharing among members. The most important consideration from the viewpoint of economic development, however, continues to be freight rates. This document thus seeks to analyze:

- (a) the ocean transport economic environment which gave rise to and, as yet, supports liner conference freight rate activities;
- (b) liner conference freight rate structure and practices;
- (c) shippers' councils and their freight rate activities;
- (d) the impact of non-conference carriers and other independent groups on liner freight rate activities, and
- (e) the division of liner conference freight rates into three natural cost centers.

I. THE OCEAN TRANSPORT ECONOMIC ENVIRONMENT

To understand why ocean transport gave rise to conferences a brief review of the economic environment in which merchant vessels operate would appear useful. Since shipping lines offer large, indivisible cargo carrying units, i.e., the "holds" of vessels, they have an inherent inflexibility for cargo capacity. That is, if there is not enough cargo to fill all holds, they must nevertheless be transported. As a result, upon setting a sailing date, almost all expenses which were variable become fixed and, consequently, the competition between shipping lines to obtain cargo to fill their vessels at any price is tremendous.

A major reason underlying the establishment of ocean liner conferences originally was the stabilization of freight rates. Without the conference mechanism, history shows that uneconomic rate reductions break out to attract more cargo and the weaker lines are either forced to close or absorbed by the stronger lines. Since the survivors have little or no competition, rates are raised until such time as new carriers are attracted to the trade and the cycle of rate reductions commences once again. Conferences seek to deter this cycle from occurring, thereby bringing a certain stability to ocean freight rates.

When conferences were initially formed, cargoes moved strictly via breakbulk vessels. More recently, within the last 20 years, new types of vessels have been introduced into the shipping industry -cellular container, RO-RO and LASH vessels. These types of vessels have changed the whole concept of not only the shipping but also the transport industry. That is, they have permitted the creation of a transport system in which cargo can be loaded into transport units, e.g., containers, at the shipper's place of business and moved all the way to the consignee, utilizing various means of transport, without being removed from such units in route.

The unit load concept has introduced a situation in which shippers are now dealing with a through-transport operator who could be either a haulier, a forwarding agent, a shipping company, or an entirely new company established purely for this purpose -a multimodal transport operator (MTO). While shippers of this region have only recently begun to transport goods in containers and have made only limited use of containers on a through-transport basis, shippers of other regions utilizing containers on that basis have encountered freight rate difficulties similar to those with liner conferences. According to Mr. D. Standen, chairman of the British Shippers' Council Sea Transport Committee and the European Shippers' Council Liner Committee, through-transport operators have generally refused to supply shippers with a breakdown of their single through rate into its component parts and often try to pass on percentage increases in the sea freight element as percentages on the total through rate without revealing rebates and discounts received from shipping lines.^{2/}

^{2/} Seatrade, December 1978, p. 29.

It is interesting to note that during the Intergovernmental Preparatory Group discussions concerning the United Nations Convention on International Multimodal Transport of Goods, the developing countries unsuccessfully sought to have included certain public law clauses which would require through or multimodal transport operators to quote rates in such a manner that shippers could identify separately the charges levied in respect of each movement by different means of transport.^{3/} Thus, while a cost center approach to liner freight rates was specifically elaborated for general cargo liners, it would nonetheless provide important insights into the solution of freight rate problems created by the through-transport concept.

II. LINER CONFERENCE FREIGHT RATE STRUCTURE AND PRACTICES

As ocean transport costs significantly affect the competitive position of Latin American goods in world markets, countries of this region are vitally concerned with freight rates and the terms under which their exports and imports are transported. It should be understood that Latin American producers wish to sell more primary products and manufactured goods internationally and shipping lines want to transport such merchandise. If this common goal is to be achieved, then transport costs must be as low as possible in order that the goods will be competitive in foreign markets.

The term "rate structure" means the whole set of factors taken into account by liner conferences for the establishment of freight rates. While there have been numerous attempts to catalogue these factors, the list prepared for the Inter-American Maritime Conference (1941) ^{4/} is one of the most exhaustive that has been drawn up, identifying twenty-seven factors:

^{3/} UNCTAD, Report of the Intergovernmental Preparatory Group on a Convention on International Multimodal Transport on its Fourth Session (TD/B/682), 24 January 1978, paragraph 19.

^{4/} Inter-American Maritime Conference, Report of Delegates of the United States (Washington, Government Printing Office, 1941), pp. 25-28. Quoted in Robert T. Brown, Transport and the Economic Integration of South America (The Brookings Institution, 1966), p. 117.

1. Character of the cargo;
2. Volume of cargo;
3. Availability of cargo;
4. Susceptibility to damage;
5. Susceptibility to pilferage;
6. Value of goods;
7. Packing;
8. Stowage;
9. Relationship of weight to measure;
10. Heavy lifts;
11. Extra lengths;
12. Competition with goods from other sources of supply;
13. Cargo via competitive gateways;
14. Competition from other carriers;
15. Direct cost of operation;
16. Distance;
17. Canal tolls;
18. Port location;
19. Possibility of securing return cargoes;
20. Cost of handling;
21. Lighterage;
22. Special deliveries or services;
23. Port facilities;
24. Port regulations;
25. Port charges and dues;
26. Fixed charges, and
27. Insurance.

In an earlier study of Latin American freight rates,^{5/} it was determined that two of these factors -the value of the commodity carried and the stowage factor- account almost entirely for the differences between freight rates per ton for various commodities. The value of the commodity

^{5/} CEPAL, Maritime Freight Rates in the Foreign Trade of Latin America (E/CN.12/812/Rev.1), 24 November 1970, p. 108.

carried may be regarded as reflecting the conditions of demand for the product and, hence, shipping services, while the stowage factor reflects the conditions governing the cost of transport.

All conference members charge the same amount for carriage of a given product between one port or any port in a range of ports in the origin area and a particular port or any port in the range in the destination area. Ocean liner tariff schedules give a specific rate for the carriage of most items of general cargo between the two areas, although products not frequently traded are covered by the application of a "not otherwise specified" rate (n.o.s.). When an n.o.s. item becomes sufficiently important to warrant separate treatment, a specific rate is agreed for it. Some products are excluded from the schedule, these being primarily bulk items for which the individual member lines are allowed to charge what they may think fit (open rate) so as to fill any empty space by capturing a market segment that would otherwise be serviced by tramp vessels.

Under the rate setting procedures used by conferences, the cost of providing transport services has little influence on the rates charged. Rather, those products with the highest ratio of value-to-weight are generally assigned the highest rates in the schedule, in the belief that demand for these products -and hence demand for maritime transport- is relatively inelastic with respect to changes in freight rates. This is an example of "charging what the traffic will bear". Another important reason why the rates for particular products may be quite unrelated to the costs of transport services is that, as time passes, rates are subject to periodic adjustments of a blanket nature as costs rise in general. Thus, even if there had originally been a cost-based rationale for certain rates, successive general rate increases would tend to diminish such rationality. Moreover, seldom are rates for particular products modified to reflect changed market conditions, and there may be a time lag between the change in conditions and the adjustment of the rate so that the relation between any one rate and market conditions could also be weak.

Not only at the product level does the conference tariff tend to have a weak relationship with the costs of carriage. There also exists a less-than-perfect correspondence between costs and prices on the spatial

/plane. Mainly

plane. Mainly on the grounds of simplicity, conferences frequently set the same rates from any one of a range of ports in the origin area of the cargo to any one of a range of ports in the destination area. Thus, the fact that one port may be much cheaper to use than another is usually not reflected in lower rates. Sometimes a port is allocated to a different range on the grounds of different cost conditions, but usually the only way that cost variations are recognized is by the application of a surcharge to a port that is suffering from congestion.^{6/}

The tariff listings vary considerably in length, depending on the number of different ranges identified, the number of products traded frequently enough to warrant individual treatment, and the extent to which obsolete nomenclatures are maintained. The tariff book also contains a section explaining the conditions under which goods are accepted for transport. Included as well are a list of member lines, any general rate increases since the schedule was drawn up, congestion surcharges, bunker and currency adjustment factors, definitions of relevant terms such as what is meant by samples which may be carried free of charge, any extra charges that may apply to goods shipped in heavy or voluminous packages, exceptional dimensions, conditions of payment, etc.

The individual tariff schedule rates are established so that the most inefficient line belonging to the conference can earn enough not only to cover its operating costs but also sufficient profit to assure a reasonable rate of return on invested capital. The difference in operating costs for members of a liner conference is best illustrated in a trade for which comprehensive information was made available to UNCTAD by five shipping lines. It was found from an analysis of this information that the annual cost of the highest cost vessel was 132% higher than that of the lowest cost vessel.^{7/} Therefore, freight rates established by a liner conference which provide the highest cost operator a reasonable rate of return on invested capital to assure vessel replacement at the end of its

^{6/} See, for example, United States Merchant Marine Act of 1936, section 205.

^{7/} UNCTAD, Freight Rates (TD/B/C.4/128), 3 September 1975, paragraph 13.

economic life would permit the lowest cost operator to "earn" 132% more than necessary for such replacement.

Since shipping lines combine to set freight rates, they can charge rates that on the whole are higher than would be possible if the lines actively competed in such trades. Moreover, the conference lines are under less incentive to keep their costs low and their operations efficient.^{8/} Liner conferences indicate that their members compete with each other, not on the basis of who can offer the lowest freight rate, but who can best provide the service requirements that shippers might need.^{9/} Nonetheless, service competition does not appear to be an adequate means by which the cost components of a singular freight rate might be identified and controlled.

The freight rates for ocean liner conferences have grown into a jungle of complex calculations, surcharges and conditions.^{10/} In a specialized transport magazine, Mr. J.F. Muheim, Chairman of the Standing Committee of the European Shippers' Councils, stated that, "Conferences must reform tariffs and simplify rules and conditions so that shipowners, their agents and shippers need less administration, and consequently can operate and sell cheaper".^{11/} Similarly, according to Mr. H.R. Graf, president of Cast North America Ltd., a successful non-conference ocean carrier on the highly competitive North Atlantic, "The commodity tariff is closely linked with the conference structure, which is a structure conceived in the 19th century. ... We believe that's antiquated thinking which doesn't lend itself to today's needs. ... It takes at least six months to train somebody to read today's commodity tariff, thousands of pages of it. ... There's a lot of administrative staff involved in it".^{12/}

The structure of liner conference freight rates has been the subject of much adverse comment, being described at various times as unnecessarily complex, resulting in freight rates altogether too high and reflecting

^{8/} UNCTAD, Consultation Machinery (TD/B/C.4/127/Supp.1), 23 April 1975.

^{9/} Transport 2000, May/June 1979, p. 14.

^{10/} Transport 2000, January/February 1980, p. 14.

^{11/} Ibid.

^{12/} Transport 2000, January/February 1981, p. 14.

a monopoly position, as well as being surrounded by a veil of secrecy. Whether a conference is a wicked cartel of greedy shipowners or a sensible organization avoiding wasteful competition, depends on whether you are a user or seller of maritime transport services. Nonetheless, the theory that transport costs are only a marginal element of the final sales price must be abandoned by shipping lines and their conferences.^{13/} Instead of clinging to such an outdated economic concept, shipping lines, container operators and conferences should join forces in the elaboration of a freight rate structure which can permit those involved in international cargo movements to recognize individual cost elements and take appropriate measures for their control.

III. SHIPPERS' COUNCILS

It should be understood from the outset that shippers and their councils neither oppose the continued existence of the conference system nor advocate the total utilization of independent steamship operators. Shippers point out that if a liner conference refuses a freight rate proposal, such rate is normally accepted by a non-conference carrier. When this occurs, liner conferences lower their freight rates to solicit cargo which a short time ago was considered unremunerative and not worthy of rate relief.^{14/} For this reason shippers seek to protect independent carriers, despite conference rate reductions.

While shippers are not against the conference system per se and there seems to be a recognition that conferences can be in their interest, doubt exists that this is the case in all situations. Considering shipper criticism of existing conference rate practices, it perhaps seems surprising that they continue to patronize conference services. However, there is still widespread support for the conference system and the criticism arises from a frustration that an otherwise mutually beneficial

^{13/} Geraci, Vincent J., and Wilfried Frewo, "Bilateral Trade Flows and Transport Costs", The Review of Economics and Statistics, Vol. 59, Amsterdam, 1977, pp. 67-74.

^{14/} Container News, December 1980, p. 14.

relationship is believed to be weighted in favor of only one party -the shipowner. For example, the New Zealand Meat and Dairy Boards recently announced that they would continue to assign cargoes to existing conference carriers even though the decision will mean that shippers have to meet higher freight rates than were on offer from a non-conference carrier. The major factor which influenced this decision was a conference capacity to provide a "totally integrated service which can be programmed with some precision" to carry produce when desired to reach North American markets at the most advantageous times.^{15/}

With the proliferation of general rate increases, currency and bunker surcharges, certain shippers feel that unity in the form of shippers' councils is a far better way to address these questions than on an individual basis. As freight rates are established by conferences using some or all of the twenty-seven aforementioned factors, any comparison of freight rates to determine if rate discrimination exists should be made for similar products transported on the same route -i.e., either inbound or outbound. Nonetheless, a comparison of inbound with outbound rates can provide useful insights into, inter alia, the effectiveness of shippers' councils. For example, the existence of shippers' councils in Europe and the Far East but not in the U.S. has resulted in a situation where ocean liner freight rates are 32.2% higher for U.S. exports than for similar imported commodities on the same routes. Further, the difference in rates paid by exporters from the U.S. and those charged to third country shippers to the same markets average 100% and run as high as 302% for outbound cargoes from Japan.^{16/}

Liner conference members serving the trade from the North American continent to Australia and New Zealand have encountered a growing shippers' resistance to prevailing freight rate levels. Canadian shippers indicate that it is cheaper to route goods via Hong Kong or Japan for final delivery in Australia or New Zealand than to ship directly with conference carriers from Canadian East and West Coast ports. Mr. James

^{15/} Fairplay International Shipping Weekly, 27 November 1980, p. 7.

^{16/} Seatrade, September 1978, p. 37.

/Moore, Secretary

Moore, Secretary of both the Canadian Export Association and the Canadian Shippers' Council, expressed frustration with conference intransigence over revealing their cost structures to support such high rates.^{17/} However, in response to pressure from the Federation of ASEAN Shippers' Councils (FASC), concerning the method by which freight rate increases are calculated, the Far Eastern Freight Conference (FEFC) indicated that it now intends to substantiate all freight increases with outside data, e.g., from the International Monetary Fund and the Organization for Economic Cooperation and Development, rather than from intra-conference sources.^{18/} While the practice would seem laudable, its success largely depends upon the relevance of the data selected.

For some time shippers on many conference routes have been pressing strongly for a more simplified freight rate structure. For example, the FASC has long been critical of the tariff structure of the FEFC and has been seeking individual government support for legislation designed to give greater local control over the setting of freight rates by the FEFC.^{19/} The desired legislation would require west-bound conference rates to be determined in negotiation with the national shippers' councils.

It is interesting to note that liner conferences are as subject to international control as is any other commercial area. For instance, in an effort to recover revenues lost in a longshoremen's strike that idled East and Gulf Coast ports of the U.S.A. during 1978, various North Atlantic conferences sought to impose a freight rate surcharge. Nonetheless, this surcharge was cancelled due to protests of shippers on both sides of the Atlantic, the European National Shippers' Council and the U.S. Federal Maritime Commission.^{20/} Moreover, such control can be implemented effectively by regional, rather than by worldwide agreements, and in some cases by single countries. There is little to prevent an economically strong regional group of countries, such as those of the FASC, from establishing their own regulations for conferences.^{21/}

^{17/} Fairplay International Shipping Weekly, 14 May 1981, p. 12.

^{18/} Fairplay International Shipping Weekly, 22 February 1979, p. 6.

^{19/} Fairplay International Shipping Weekly, 28 June 1979, p. 6.

^{20/} Fairplay International Shipping Weekly, 13 July 1978, p. 55; and Seatrade, March 1978, p. 28.

^{21/} Paul Burke (John Hopkins University), Issues in Shipping's Future: Need for, and Prospects of, Liner Conferences, Intereconomics, January 1976, p. 27.

While most Latin American countries have shippers' councils, some of the more active are those of Colombia, the Dominican Republic and Mexico. The co-operation among otherwise autonomous national shippers' councils in the Latin American region was formalized in 1979 with the establishment of the Federation of Latin American International Transport Users Councils (FELACUTI). FELACUTI seeks not only to present regional needs at the international level but also to strengthen regional negotiations with conferences.^{22/} An example of the co-operation that can exist between shippers and liner conferences is the Joint European Shippers' Council/Council of European and Japanese Shipowners' Associations. This association has elaborated a code on which relations between shippers and liner conferences are based, and provides shippers an opportunity to participate in the establishment of liner freight rates.

Up to the early 1950s, liner shipping tended to be the domain of the fleets of the long-established maritime nations. Nonetheless, during the last two decades developing nations began to seek an increased share of their own countries' trade. In recognition of these legitimate ambitions the United Nations Conference on Trade and Development (UNCTAD) undertook in 1971 the elaboration of what would later become known as the Convention on a Code of Conduct for Liner Conferences.^{23/} This Code, adopted in April 1974, outlines as its fundamental objectives the development of regular and efficient liner services, a balancing of interests between suppliers and users of these services, and the holding of meaningful consultations between conferences and such users. To develop efficient liner services, balance the interests of users and suppliers of shipping services, and hold meaningful consultations, there must be an interchange of relevant cost and revenue data between shippers and conferences to justify requests by the latter for changes in rates. For example, the objectives and principles of the Code provide:

^{22/} CEPAL, Boletín FAL, No 25, December 1979.

^{23/} UNCTAD, Convention on a Code of Conduct for Liner Conferences (TD/CODE/13/Add.1), 1975.

"conferences should make available to interested parties pertinent information about their activities which are relevant to those parties and should publish meaningful information of their activities" (emphasis added).

Without such information, an agreement that freight rates have been established at a level which permits only a "reasonable profit for shipowners" and the holding of "mutually constructive consultations" -Articles 12 and 11 respectively- would be impossible.

As the economic circumstances which gave rise to liner conferences still exist, there is little doubt that the conference system will survive. Nonetheless, due to growing shipper discontent, sophistication and political power such survival is clearly based upon a recognition by the conferences that, after more than a century of dominating ocean transport, the structure and unilateral practice for establishment of freight rates must change.

IV. THE IMPACT OF NON-CONFERENCE CARRIERS AND OTHER INDEPENDENT GROUPS ON FREIGHT RATES

Historically, non-conference carriers were small entrepreneurs who took a largely insignificant part of a trade for short periods, never providing a real or long-term threat to conference domination. As soon as the non-conference carrier was established, it adopted a freight tariff very similar to that of the conference with rates 10% or so lower to attract cargo. There are several trades in which reputable non-conference carriers have gained tacit acceptance by a conference so long as rates maintain this differential. However, since the advent of containerization there appears to be a growing trend towards the emergence of highly efficient, large-scale non-conference carriers that have considerable experience and financial stability, are prepared to make a long-term commitment to a trade and are able to offer rates lower than those of the conference carriers while maintaining comparable services. The effect of these new non-conference carriers on the overall conference freight rate structure has been significant. Perhaps the conferences most affected by such independent carriers would be the Far Eastern Freight Conference (FEFC), the New Zealand European Shipping Association and the Trans-Atlantic Associated Freight Conference.

The FEFC member lines not only face competition from independent carriers such as the Trans-Siberian railway (TSR) and Evergreen Line but also increased transport capacities from existing and new conference members. The TSR service has been progressively improved until its efficiency and reliability make it an extremely attractive carrier, especially for smaller parcels with narrow price margins.^{24/} Despite the TSR, greatest concern within the FEFC involves the activities of the non-conference carriers such as Evergreen, which entered the trade during mid-1979. Since that time it has maintained an impressive growth record and recently acquired a number of major shippers such as Ford. As a result of the freight rate competition brought about by independent carriers such as the TSR and Evergreen, the FEFC in early 1980 began offering drastically reduced rates on certain commodities.^{25/} It is interesting to note that in a recent survey of Japanese shippers, the FEFC was found to have a "lack of positive interest" in their suggestions.^{26/} Perhaps a positive interest in shipper suggestions could have improved conference services and averted such rate reductions.

As a result of benign governmental legislation, unquestioned shipper acceptance and persuasive marketing, the conference system has enjoyed a quasi-monopoly position in the Australia/New Zealand trades since the colonial period.^{27/} Nonetheless, for the first time there is a financially strong and viable non-conference carrier alternative -ABC Containerline- on the trade between Australia/New Zealand and Europe. ABC originally began transporting Australian minerals to various European and North American markets, and turned to containers as not only a remunerative outbound load but also a cargo unit compatible with its bulk fleet configuration. As ABC offers freight rates from 10% to 15% below those currently charged by members of the New Zealand European Shipping Association,^{28/} it provides a useful insight into the savings which shippers could enjoy if

^{24/} Fairplay International Shipping Weekly, 17 January 1980, p. 41.

^{25/} Fairplay International Shipping Weekly, 6 March 1980, p. 8.

^{26/} Fairplay International Shipping Weekly, 13 March 1980, p. 9.

^{27/} Fairplay International Shipping Weekly, 2 October 1980, p. 19.

^{28/} Fairplay International Shipping Weekly, 2 April 1981, p. 6.

conference carriers were truly efficient and economic. Reflecting the presence of ABC, the New Zealand Wool Board gave the Association its statutory two-year notice that the current long-standing freight agreement will be terminated in its present form beginning October 1982.^{29/} Moreover, the Australian Wool Buyers have taken advantage of this situation and negotiated a highly favorable three-year freight agreement with the conference.^{30/}

While the Trans-Atlantic Associated Freight Conference ^{31/} was originally established in the North Atlantic trade to bring about freight rate stability and rationalize sailings, the current situation in this trade brings the conference role and its capacity to achieve these goals into question. Following the 1973 grain sale by the U.S.A. to Russia, vessels of the latter country were permitted to load and discharge cargoes at U.S.A. East Coast ports. Thereafter, these fleets continued trading as non-conference carriers on the North Atlantic,^{32/} quoting freight rates from 15% to 30% below those offered by conference members.^{33/} It is interesting to note that, while Russian vessels have left this trade, the freight rates quoted by conference lines are now lower than those of the Russian fleet. Similarly, Cast North America Limited is a non-conference carrier operating a container service on the North Atlantic between Montreal, Canada, and Antwerp, Belgium. It should be noted that Cast has combined a two-port service with very slow vessel speeds of 14 knots and an efficient inland distribution system at both ends of the trade to reduce overall, i.e., origin to destination transport times. The line bases its freight rates on the cost to move containers the distance required plus a profit margin.^{34/} The type of cargo in the container, its weight, volume and value are immaterial, except for purposes of documentation, customs,

^{29/} Fairplay International Shipping Weekly, 25 September 1980, p. 9.

^{30/} Fairplay International Shipping Weekly, 2 October 1980, p. 9.

^{31/} Included in this Association are the North Atlantic Baltic Freight Conference; North Atlantic Continental Freight Conference; North Atlantic French Atlantic Freight Conference; and the North Atlantic United Kingdom Freight Conference. See footnote ^{1/}.

^{32/} Transport 2000, March/April 1977, p. 10.

^{33/} Transport 2000, September/October 1978, p. 36.

^{34/} Transport 2000, January/February 1981, p. 24.

insurance and safety. According to Cast president, Mr. H.R. Graf, freight rate instability on the North Atlantic is not due to the independent carriers but rather to the conference structure and its inflexibility.^{35/}

While non-conference carriers have had a significant impact on the liner freight rate structure, governmental groups as well as conference members have also brought the current rate structure into question.

Following the New Zealand government's initiative ^{36/} to study liner freight rates in its outbound trades and in an effort to review conference practices for establishment of those rates, it was determined that during the last decade while the consumer price index had risen by 182% and farm input prices by 175%, the cost of shipping wool to Europe had increased by 265%, butter by 349% and lamb carcasses by 431%.^{37/} The Deputy Director of Lincoln College's agriculture economic research unit, Dr. P. Chudleigh, indicated that from this data "one could conclude that the new (maritime transport) technologies adopted in the 1970's have been inappropriate or have been introduced inefficiently or that the lines have not been passing on savings due to the container revolution".^{38/}

As a result of freight rate competition in the trans-Pacific trades, during March 1980 Sea-Land Services Inc. withdrew from nine eastbound conferences. Sea-Land indicated that it would consider revoking this decision if conferences would permit independent rate making among members to counter such competition. While the conferences did not agree to this proposal, they immediately lowered freight rates by an average of 9%.^{39/} Nonetheless, one year later Sea-Land was considering re-entry into these conferences as a new rating formula which would permit a limited degree of individual rate setting was under study.^{40/}

A booklet published by the Associated Latin American Freight Conferences indicates that, "Conferences have very little latitude, very little room to maneuver, when it comes to fixing charges (freight rates). Most

^{35/} Ibid.

^{36/} Fairplay International Shipping Weekly, 18/25 December 1980, p. 9.

^{37/} Fairplay International Shipping Weekly, 1 January 1981, p. 9.

^{38/} Ibid.

^{39/} Fairplay International Shipping Weekly, 27 March 1980, p. 9.

^{40/} Fairplay International Shipping Weekly, 2 April 1981, p. 7.

developing countries, in that they are unable to exercise any control over loading, discharging and ship operating costs because they are unable to identify the individual factors involved.

There are a few instances in which conference members do not trade under normal liner terms. Sometimes the loading operation is performed for the account of an entity other than the line; sometimes the unloading is the responsibility of a third party, either the importer or the exporter, depending on the terms of the contract of sale. When both loading and unloading are performed under the responsibility of a party other than the shipping line, the terms of shipment are known as "free-in-and-out", (f.i.o.). Sometimes the shipment may be either "free-in" or "free-out", discharge-free being an alternative expression for free-out. Carriage under any one of these terms is common in the case of trip charters for bulk products and has been tending to become more frequent in the liner trades since the latter half of the 1960s. In exceptional circumstances, a conference line may quote a rate f.i.o. so as to compete with a tramp vessel which offers such terms to a shipper who may prefer them. Also, a few conferences have come to adopt either "free-in" or "free-out" rates as a standard practice. Examples are conferences that involve the socialist bloc and those on certain trades in the Mediterranean, where a prime mover in the change from the traditional liner terms was an attempt on the part of the lines to separate their rates from rapidly escalating cargo handling costs outside their control.

The f.i.o. concept was adopted as a means by which the lines could avoid the need to increase their tariffs when faced by rises in handling costs, particularly in developed countries, over which they have little influence. However, as the introduction of f.i.o. terms means that the traditional division of responsibility between shipper and shipping line as defined by liner terms is upset, there are difficulties of an institutional nature which impede their introduction on a general scale.

While the present division of responsibility between carriers and persons providing cargo handling services is codified, litigated and well understood, the alternative by which each shipper would contract separately for carriage and cargo handling services would change this well understood
/practice, creating

practice, creating unknown areas of liability and a mass of uncoordinated negotiations between shippers and suppliers of cargo handling services. Furthermore, in the context of the liner trades especially, a complication in the use of f.i.o. rates is the need to have available not only the tariff book of the carrier but also tariff information for the ports of loading and unloading, which still would often not permit a shipper to know in advance what his real cost will be.^{43/}

It is one of the characteristics of a cost-center approach to ocean liner tariffs that the separation between port costs and vessel operating costs is similar to that under f.i.o. terms, but without any change in the allocation of responsibility as defined by liner terms, nor would the potential user of liner services have to be separately aware of port-related charges from sources other than the liner tariff. Basically, the division of liner freight rates into three natural cost centers is a means of presenting the rates of a liner conference in such a way that the total charge under liner terms is divided up into three separately stated elements. The first of these elements refers to the costs of loading the cargo at the port of origin, the second corresponds to the line-haul movements between the ports of origin and destination, and the third refers to the discharge costs at the port of destination. Physically, the current manner of presenting the rates in the liner conferences tariff would be maintained, but instead of there being a single column of rates alongside the identification of commodities, there would appear three columns plus a total.

While the concept of a cost-center ocean liner tariff is exceedingly simple, there are two entirely different ways in which it can be defined for practical application. Both alternatives share the following common characteristics: the first column, corresponding to costs in the port of origin, includes direct cargo handling costs plus port dues and charges; the second column includes all ship's costs while navigating from the port of origin to the port of destination; and the third column includes direct cargo handling costs plus port dues and charges in the port of destination. The difference between the two alternatives lies in the treatment of the

^{43/} For further discussion of the f.i.o. concept see UNCTAD, Freight Rates, (TD/B/C.4/135), 4 September 1975.

ship's operating costs while in the ports of origin and destination. Under the first alternative, these costs are placed in the second column together with the ship's costs while navigating. Under the second alternative, the ship's costs in the port of origin are placed in the first column and such costs in the port of destination are placed in the third column.

The first alternative has the advantage of simplicity in its application and clarity in the interpretation of the amounts in each column. In addition, it separates into different columns costs which are the consequence of actions by different entities, and hence permits a direct identification of the economic impact of these actions. The first alternative, however, does not take into account the economic cost of delays to ships in port or of low port productivity. In this sense the second alternative, which assigns the cost of the ship's time while in port to the first or third column, provides a clearer indication of the real relation between navigation costs and port costs.

VI. PROBABLE EFFECTS OF APPLYING A COST-CENTER OCEAN LINER TARIFF

While the effects of applying a cost-center liner tariff are somewhat speculative, three alternative scenarios can be imagined: (1) individual rates are not modified, (2) cost and productivity variations among ports are taken into account, and (3) the present degree of rate discrimination among commodities is reduced. Furthermore, these scenarios should be viewed as individual stages of a continuing process through which conferences incorporate the cost-center approach for liner freight rates.

1. A cost-center ocean tariff which maintains unchanged all existing rates

A cost-center ocean tariff which expresses existing rates as the sum of costs for loading in the port of origin, line-haul between ports, and unloading in the port of destination would provide shippers, shippers' councils and governments with important information which is not available to them at present. At the same time, it would show the true significance of the costs which liner vessels incur while in port. Despite the rapid increase in the costs of new vessels and of fuel in recent years, cargo handling accounts for at least 40% of the total annual cost of a typical conference general cargo vessel. Handling costs in ports of developed

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countries are especially high since labor productivity often fails to increase as rapidly as earnings of stevedores.

Taking into account the properties of a cost-center ocean tariff which does not alter present freight rates, the following consequences can be anticipated:

(i) Because of the availability of more detailed information, the bargaining position of shippers and shippers' councils in relation to the conferences would be strengthened. When conferences propose general rate increases to compensate for increased costs, they would be able to justify rate increases only by referring individually to the three columns. In turn, shippers and shippers' councils would be in a better position to verify whether handling costs or navigation costs have increased sufficiently to warrant the rate increases requested by the conferences. Shippers and shippers' councils would also be able to compare the amounts allocated to each column for particular commodities by different conferences serving the country's trade and to question when one conference shows, for example, a cargo handling cost in particular ports much higher than that shown by other conferences for the same ports. Shippers would also be better able to compare liner rates with voyage charter rates, which are frequently f.i.o. The comparability of information provided by different conferences, and the ease with which shippers and shippers' councils could compare cost increases with requests for rate increases, would be greater under the alternative by which the end columns of the cost-center ocean tariff include only cargo handling costs and port dues, with all ship's costs placed in the center column.

(ii) This type of cost-center ocean tariff would not identify particularly high or low cost ports, as the port costs included in the first column would represent an average cost over all ports of origin and those in the last column an average over all ports of destination to which the tariff applies. Nevertheless, the separation of average costs in loading ports from average costs in ports of destination would provide important insights into the economics of ocean transport, especially when one of the sets of ports encompasses a developed country or countries and the other set developing countries. This information, for example, would permit

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conferences to show that only one cost component corresponds to activities over which shipping lines have direct responsibility and control. In addition, it would assist in analyzing the desirability for developing countries to accept new technological systems, as well as to analyze potential benefits from concerted action to improve port capacity and facilities. For this type of analysis, it would be preferable to implement the alternative under which the first and third columns include both cargo handling costs and the cost of ship's time in port.

(iii) The conferences would undoubtedly receive requests from shippers of high-valued goods for a reduction in their freight rates. The consequences of acceding to these requests are analyzed in a later section. When conferences establish a rate for a commodity which previously was not specifically identified in the tariff, there would probably be a tendency to set a rate closer to the average of existing rates under a cost-center ocean tariff than is the case at present, as conferences would seek to avoid any claim of price discrimination among freight rates.

(iv) The identification of a rate component which specifically relates to a country's ports (even though averaged with another country's ports) might raise questions about the applicability of national value-added taxes or other types of national taxes or regulations.

(v) For the cost-center ocean tariff to fulfill its potential as an information-generating mechanism, it is essential that shippers and shippers' councils know the criteria that were applied in the separation of existing freight rates into the three component parts. Nevertheless, much of the usefulness of a general application of this scheme would not be fully attained until different conferences adopted unified criteria regarding treatment of the cost of ship's time while in port.

(vi) The application of a cost-center ocean tariff would not affect conference loyalty discounts, rebates or contract rates.

(vii) The task of preparing, distributing and updating conference tariffs in a cost-center format should present no problems as existing freight rates are maintained unchanged.

2. A cost-center ocean tariff which reflects cost variations among ports served

The cost-center ocean tariff can be expanded to reflect cost variations among the ports served. This recognition of cost variations could be at the national level or on the basis of individual ports (or groups of ports) within a country. In either case the application of the cost-center ocean tariff would result in changes to at least some existing freight rates, although frequently the new rates would simply incorporate existing port surcharges and hence would not significantly alter previous rates.

A strong case can be made that for a cost-center ocean tariff which reflects cost variations among ports to fulfill its objective, the columns which correspond to cost in port should be assigned both direct cargo handling costs and the cost of ship's time while in port. Only in this way can total costs be compared among ports, as low direct cargo handling costs may be more than offset by long delays of the ship in port due to congestion, inadequate facilities or low productivity.

It might well happen that there would be no need to change the system of presenting rates for ranges of ports when a particular range is restricted to developed countries as ports of origin or destination. In any event, this is a question best left to the countries and conferences involved to decide, as in some cases national law now appears to prohibit any recognition in liner freight tariffs of cost variations among national ports.^{44/} For developing countries, it is most important that the cost-center ocean tariff reflect cost variations among their ports in order to have a basis on which to evaluate new port investments and to assure that cost reductions are incorporated into freight rates.

The probable consequences of the application of a cost-center ocean tariff which reflects cost variations among ports will depend to some degree on whether average costs are used at the national level or whether such tariff reflects cost variations for individual ports. These alternatives should be kept in mind while examining the probable consequences which follow:

^{44/} See, for example, United States Merchant Marine Act of 1936, section 205.

(i) A direct link would be established between the freight rates which affect a country's foreign trade and the economic efficiency of its ports. Cost savings resulting from one country's efforts to improve its ports would not be shared with other countries, while the excessive costs resulting from one country's inefficient ports would not be absorbed by other countries served by the same conference. Proposed port investments could be analyzed with the knowledge that the resulting benefits would accrue to the investing country. Consultations between governments and conferences on proposed port investments, changes in port operations, or the introduction of new maritime transport technology would become meaningful because the direct consequences could be anticipated. Concerted efforts to improve port efficiency would almost certainly be made.

(ii) A framework would be provided for the application of rational port pricing. This is an important economic tool whose usefulness is at present severely restricted.

(iii) When the port efficiency of each country is reflected in that country's freight rates, average freight rates for at least some countries will rise while those for others will fall. There would thus be some impact on the landed price of imported goods as well as on the earnings of exporters although the quantitative significance of this impact should not be great. In those cases in Latin America where the ports of two countries serve the transit traffic of a third country, there could be diversion of traffic toward the lower-cost port. However, it should be understood that port dues for vessels and costs for cargo loading and discharge do not constitute all the expenses which must be borne by shippers. Other expenses include those for the movement of cargo between the dock, storage area and port gate as well as the freight charges for transport between a port of arrival and the city of destination for landlocked countries. While a cost-center liner tariff would show differences in certain port costs, shippers would nonetheless need to determine all costs involved before diverting their cargo toward any port. In general, if this tariff only reflects differences in port efficiency among developing countries at the national level, it is unlikely that its application would cause sharp changes in the traffic of individual ports.

(iv) A cost-center ocean tariff which identifies the costs associated with a particular country's ports would permit changes in that country's exchange rates to be incorporated immediately and with considerable accuracy into the corresponding tariff.

(v) If the cost-center ocean tariff were to reflect cost variations among the ports of a single country, the possibility of traffic diversion from one port to another could be much greater. While direct cargo handling charges might be higher in the principal ports of a developing country, they might well be more than offset by the higher productivity permitted by the concentration of mechanical aids in those ports and by the economies of scale related to larger absolute amounts of cargo loaded or discharged during each ship's call. These factors might result in lower freight rates to and from these principal ports with a tendency toward even greater concentration of economic activity within their hinterland. In other cases it is precisely the principal ports which presently suffer from congestion and to which surcharges are applied, so that a structure of freight rates which takes fully into account cost variations among ports could bring about a diversion towards ports in outlying regions.

(vi) The occasional use of emergency port surcharges to take into account temporary problems of particular ports is compatible with a cost-center ocean tariff. If ports costs are averaged at the national level, the use of surcharges for individual ports may even lead to greater economic efficiency. If the tariff itself reflects cost variations among individual ports, surcharges should be incorporated into the tariff if it is seen that the conditions giving rise to them are likely to persist.

(vii) Conferences may experience greater problems in preparing a cost-center ocean tariff which takes into account cost variations among ports than one which simply breaks existing rates into three columns. It is likely that the initial cost-center ocean tariff would present rates which differ little from rates prevailing prior to its application. Over time, however, changes could be incorporated and such tariff would begin to more adequately serve its objectives.

(viii) Shippers and shippers' councils would find more useful for their negotiations with conferences a cost-center ocean tariff which does

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not present average port costs over broad port ranges. As the information provided in the tariff would be more specific, interested parties would be in a better position to verify its accuracy and to evaluate freight rate changes.

(ix) There would be no important problem associated with the physical production, distribution and updating of a cost-center ocean tariff which averages port costs at the national level. If a single rate book covers two or more origin or destination developing countries, each of these countries would have its own first or third column. Should this prove unwieldy, there would be a separate tariff volume for each country served, which is already the case in many trades. More complicated would be the presentation of a tariff taking into account cost variations among the ports of the same country. In this case it would probably be feasible to present absolute rates for a base port or ports and to express the rates for the remaining ports as a percentage of these rates.^{45/} Where a commodity moves only through a non-base port, the absolute rate could be established for the port through which it moves.

(x) The cost-center ocean tariff would also permit the establishment of rebates which could be granted by conferences when improvements have been made to a port's infrastructure and, hence, productivity, in the same way that surcharges are applied whenever there is congestion in a port.

3. A cost-center ocean tariff which reduces rate discrimination among commodities

As has been noted, the application of a cost-center ocean tariff would make clearly apparent the degree of rate discrimination in liner conference tariffs. While the use of such a tariff would not in itself bring about any reduction in present discrimination among different commodities, shippers of high value goods, and perhaps member lines as well, would seek justification of freight rates for particular commodities, especially those which deviate the most from the "average" freight rate.

As was shown in Section II, conferences establish freight rates to recover not only operating costs but also to assure a return on invested

^{45/} See UNCTAD resolution 66 (III), paragraph 56 of the annex.

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capital. Therefore, decreases in some rates will be compensated by increases in other rates, especially when the amount of cargo which moves under the decreased rate is significant. Under a cost-center ocean tariff, it is likely that the first freight rates which would be examined as candidates for an increase would be those whose middle (line-haul) column is exceptionally low.

For these reasons, one of the probable consequences of applying a cost-center ocean tariff is that discrimination among individual commodities would be reduced over time. Freight rates, in other words, would tend to reflect the sum of real port costs plus average costs of the ship while at sea, and the importance of commodity value would tend to diminish in importance as a factor considered in the establishment of individual rates.

An analysis of the effects of a reduction in rate discrimination must necessarily be speculative, especially since shippers themselves might well appreciate the advantages -even to shippers of high-valued commodities- of retaining some degree of discrimination if this is necessary in order to maintain a satisfactory level of service. Nevertheless, in view of the probability that rate discrimination would decrease over time, some of the implications should be anticipated:

(i) For developing countries' imports, freight rates on finished industrial products would tend to fall relative to rates on lower valued raw materials and intermediate goods. The present freight rate structure for developing countries' imports parallels to some extent the structure of import duties and hence reinforces the protection given to national industries. A reduction in rate discrimination would tend to reduce this protection and might also influence internal price structures:

(ii) For developing countries' exports, a reduction in rate discrimination might assist in increasing exports of industrial products while reducing the net income of producers of traditional raw materials.

In evaluating the quantitative significance of the possible effects described above, a number of considerations should be kept in mind. First, a reduction in rate discrimination is unlikely to produce changes of importance in trading patterns, because changes in rates are not

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expected to be large and the rates themselves are only one factor among many which determine these patterns. Second, any relative changes in the landed price of a developing countries' imports can be compensated by marginal changes in the structure of import duties. Third, there are severe limits on possible increases in freight rates on raw materials and other commodities transported in relatively large quantities because of the potential competition from non-conference maritime carriers. Conferences value these "bottom cargoes" and will make every effort not to lose them to tramp ships.

VII. CONCLUSIONS

The cost-center ocean tariff for liner conferences appears promising and potentially could receive the support of the developing countries as an instrument which would increase significantly the information available to shippers and their representatives, while at the same time reducing many of the disadvantages of aggregating freight rates over ranges of ports. It is also likely that other countries as well as liner conferences would find no difficulty in supporting the cost-center ocean tariff, if its usefulness is demonstrated, because its application would not change the traditional distribution of responsibility between shippers and shipping lines defined by liner terms.

Nevertheless, considerable work still needs to be carried out before the cost-center ocean tariff can be considered formally in an appropriate international forum. It is hoped that this document will bring about comments, criticism and suggestions from conferences, shippers, shippers' councils, non-conference carriers, other independent groups, and interested national and international organizations, which will enable CEPAL to prepare a revised version for formal consideration.

