THE OCEAN SHIPPING REFORM ACT OF 1998: CARRIER AND SHIPPER RESPONSE IN WEST COAST AND PACIFIC NORTHWEST SHIPPING

Author(s): H.G. STEWART, F.S. INABA and K.A. BLATNER

Source: *International Journal of Transport Economics / Rivista internazionale di economia dei trasporti*, JUNE 2003, Vol. 30, No. 2 (JUNE 2003), pp. 205-218

Published by: Accademia Editoriale

Stable URL: https://www.jstor.org/stable/42747658

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at https://about.jstor.org/terms

is collaborating with JSTOR to digitize, preserve and extend access to *International Journal of Transport Economics / Rivista internazionale di economia dei trasporti*

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

INTERNATIONAL JOURNAL
OF TRANSPORT ECONOMICS
Vol. XXX-No 2 June 2003

THE OCEAN SHIPPING REFORM ACT OF 1998: CARRIER AND SHIPPER RESPONSE IN WEST COAST AND PACIFIC NORTHWEST SHIPPING*

H.G. STEWART
F.S. INABA
K.A. BLATNER**

ABSTRACT: In the wake of the passage of OSRA, the Ocean Shipping Reform Act of 1998, the authors conducted interviews with shippers, carriers, and third-party agents engaged in international ocean liner shipping in the West Coast and the Pacific Northwest of the United States. This paper draws a number of implications about the effects of OSRA from these interviews. Under OSRA, the use of collusive agreements among carriers to set rates and service has all but disappeared. Instead, carriers are pursuing large-volume, re-current shipping contracts in order to exploit efficiency gains under the new regulatory environment. Large shippers tend to negotiate such contracts with carriers on their own. However, small and medium-size shippers are forming coalitions with the aid of third party agents in order to negotiate more favorable contracts with carriers. An important and emerging third party agent is the shippers' association whose sole responsibility rate negotiation. These implications suggest that the market-driven incentives under OSRA are inducing significant changes in the organizational and contractual arrangements between the parties.

1. INTRODUCTION

The objective of the Ocean Shipping Reform Act (OSRA) of 1998, PL#105-258[1], was to promote a market driven environment for the determination

---

* *Final version: September 2002*

** *Hayden G. Stewart, Analyst with the United State Department of Agriculture Economic Research Service (USDA-ERS); Frederick S. Inaba, Associate Professor of Economics, Washington State University; Keith A. Blatner, Professor of Natural Sciences, Washington State University.*

The views and opinions expressed in this paper do not reflect the views of the Economic Research Service of the U.S. Department of Agriculture.

1. OSRA was passed into law in October 1998 and implemented in May 1999. Some insiders

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

of freight rates and services in ocean liner shipping in the United States foreign trade[2]. Prior to OSRA, the majority of containerized cargo in the United States foreign trade moved under regulated published tariffs that were established by legal, collusive, rate-setting carrier cartels, called conferences, subject to approval by the Federal Maritime Commission[3] (FMC). The FMC also permitted liner cargo to move under individual service contracts between a carrier and a shipper, but such contracts were of public record and any "similarly situated" shipper could demand the same contract. Under the regulatory reforms of OSRA, carrier rates are not regulated, although published tariffs are still required, private service contracts are allowed between shippers and carriers, and the same contracts are no longer guaranteed to all "similarly situated" shippers.

This paper draws some interesting implications from interviews with participants engaged in West Coast and Pacific Northwest ocean shipping regarding the new regulatory environment of OSRA. The authors interviewed representatives of carriers, third party agents and eighty-one private exporters of food and forest products using West Coast and Pacific Northwest ports[4]. The purpose of the present paper is not to report on a rigorous, analytical examination of the data, but rather to qualitatively draw implications from the interviews about the effects OSRA. For the interested reader, a companion paper that carries out a formal, econometric analysis of the data is available upon request in Stewart and Inaba (2003).

---

consider it to be a deregulation while others consider it a "re-regulation." These latter commentators wish to emphasize that a significant number of regulatory controls still exist.

2. International liner shipping is an ocean transportation industry. Suppliers ("carriers") in this industry include the operators of containerships. Consumers ("shippers") in this industry's corresponding market include exporters and importers. The importance of this industry to the economy of the United States is hard to overestimate. According to the United States Department of Transportation's Maritime Administration (MARAD), carriers engaged in international liner shipping handle about 64 percent of ocean cargo in the U.S. foreign trades in terms of total value and 10 percent in terms of total tonnage.

3. The Federal Maritime Commission (FMC) is a division of the United States Department of Transportation. The regulations in this paragraph applied to all goods except a small number of "exempt" commodities. The list of "exempt" goods consisted mostly of forest products.

4. A list of firms to survey was generated from two different sources. Firstly, we identified producer associations which include companies supplying food and forest products. Many of these associations have homepages on the internet with a list their members. Others were contacted for a list of members. Secondly, we obtained a list of firms who had attended a trade show in Japan for food products, FOODEX 1999. This sampling procedure had the advantage that most firms could be compared by their websites. Non-respondents could then be compared with respondents to ensure against any response bias. Indeed, no such bias was detected.

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

The sectors represented in the survey included dimension lumber, engineered wood products, fresh produce, beef, poultry, food ingredients, juice purees and concentrates, canned foods, dried foods, nuts, and other foods. The main implications are as follows:

a. Carriers and shippers are increasing their use of private contracts. Although such contracts were not uncommon prior to OSRA, they are playing a greater role in the current regulatory regime.
b. While carriers have always charged lower rates for large-volume, recurrent-service freight, OSRA has increased the incentives for carriers to negotiate such pricing schemes since annual (long-term), large-volume contracts have become vital to carrier profitability.
c. Collusive agreements among carriers have ceased to be significant determinants of rates. Carriers may still collude in the current regime but lack sufficient incentives to stick to the agreements. Consequently, carriers rely more on contracts to set rates than on collusive agreements.
d. Small and medium-sized shippers can obtain lower rates to the extent that they effectively use third party agents like freight forwarders, non-vessel operating common carriers, and shippers' associations.
e. A substantial fraction of shippers who use third party agents are choosing shippers' associations.

The sections that follow discuss these responses to OSRA.

2. GROWTH IN SERVICE CONTRACTS

Since the passage of OSRA the percentage of cargo moving under contract has increased dramatically. According to the Federal Trade Commission, the number of service contracts active in the United States foreign trade increased 128 percent in the twelve months immediately following deregulation[5]. Based on the data from post-OSRA contracts shown in Table 1[6], we argue that this increased use of service contracts by carriers reflects their strategy to secure profitable freight business from shippers that require re-current service for large-volume lots. Moreover, we argue that this strategy is a rational response to the incentives created by OSRA.

---

5. Spillenger. 3 May 2000.
6. Data for this table was collected during interviews with shippers and agents who negotiate service contracts with carriers. A total of nine observations were recorded. Due to the confidentiality of service contract rates, agents were asked for the approximate discount that they receive over the published tariff rate. The mid-point was used when the interviewee replied with a range for their discount, e.g., 10 percent to percent was recorded as 12.5 percent.

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

TABLE 1

Observed Discounts over Published Tariff Rates

Contract Length	Shipper's Size Small/Medium (500 FEU or Less)	Medium/Large (5,000 FEU or Less)	
Short-Term (Less than one year)	12.50%	7.50%	11.25%
Long-Term (one year or more)	NO	29.40%	29.40%
	12.50%	25.75%	

Note. NO = No observation recorded.

Table 1 shows that lower rates are paid on annual contracts than on shorter term contracts. As argued in the transaction costs literature of Williamson (1979), Joskow (1987), Masten (1984), an agent, who is required to make a specific investment prior to a transaction, may face substantial transaction costs owing to attempts by the other party to appropriate the quasi-rents after the specific investment has been made. Transaction costs theory then argues that a long-term contract provides a way to mitigate these transaction costs and to insure that a sufficient share of the gains from the exchange are channeled to the agent making the investment. Since the provision of ocean liner shipping services requires substantial specific investments to serve a specific origin-destination market (arrange for docking facilities, provide for vessel loading and unloading, establish contacts with shippers, shipper organizations, and third-party agents), transaction costs theory implies that long-term contracts can be used to lower the costs of providing shipping services. To the extent that lower costs are passed on in the form of lower rates, Table 1 suggests that the relationship between long-term contracts and lower rates reflects the efficiency gains of these contracts to carriers.

Table 1 also shows that lower rates are paid on large-volume than on small-volume contracts. We argue that this relationship between rates and shipment size reflects efficiency gains from economies of scale and decreases in the unit cost of serving a shipper. Because the costs for such factors as fuel, crew, and vessel maintenance are essentially invariant with respect to the number of containers carried by a vessel, one would expect that the cost per container declines with the number of containers the carrier hauls. Confirming this intuition, Cullinane and Khanna (1999) showed that

This content downloaded from 98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

significant economies of scale exist in liner shipping.

The likelihood of potential efficiency gains from serving large-volume shippers on a recurrent basis creates incentives for carriers to adopt pricing strategies that can attract this type of business. Clearly, rate discounts on long-term contracts and volume discounts offered by carriers can be viewed as the type of pricing strategy needed. An example of such a pricing strategy used by carriers is a "volume incentive plan" in which the shipper is given a rebate where the rebate increases with the volume of the goods that the shipper transports with the carrier over the life of the contract. The data shown in Table 1 reflects this type of pricing strategy.

While "volume incentive plans" were certainly available before OSRA, two factors worked against their adoption by carriers. First, public disclosure of rates in service contracts combined with the "me-too" provision of common carriage worked against the adoption of such pricing strategies, since the same rates had to be extended to shippers even if the service was non-compensatory. Second, to the extent that liner conferences could hold up rates by limiting rate competition among its members, "volume incentive plans" were not be needed to fill vessel capacity in order to generate revenues. OSRA clearly weakened these two barriers against "volume incentive plans." Profitability now depends upon the carrier's success at filling up vessel capacity and attracting the desired kinds of shippers. Pricing strategies can help to achieve this success. To the extent that these pricing strategies can be effectively implemented by service contracts under the new regulatory environment, we conclude that OSRA has precipitated the observed increase in these contracts.

Despite the existence of volume incentive plans, only 22 out of 81 shippers in the authors' survey sign annual contracts directly with carriers. Other shippers either use a third party agent to negotiate freight rates or use contracts which last for less than one year. As shown in Table 2, in the post-OSRA era, it appears that larger shippers are more likely to negotiate contracts directly with carriers than are shippers of smaller volume lots. Furthermore, conditional upon negotiating directly with

TABLE 2

Fraction of Shippers Negotiating Directly with Carriers

Small	21%
Medium-sized	48%
Large	71%
Very Large	100%

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

TABLE 3

Conditional Fraction of Shippers Signing Annual Contracts with Carriers

Small	17%
Medium	53%
Large	75%
Very Large	100%

carriers, Table 3 suggests that shippers of larger volume lots are more likely to negotiate annual contracts than shippers of smaller volumes.

Notably, among shippers of smaller volume lots who negotiate directly with carriers, many reported using spot contracts to "play the market." Also, others reported shipping too irregularly to make a significant volume commitment based on likely future sales.

3. THE USE OF THIRD PARTY AGENTS

As seen in Table 2, large shippers tend to negotiate annual contracts directly with carriers, whereas all of the small and medium-sized shippers who did not negotiate directly with a carrier used third-party agents. These shippers benefit from using third party agents in that the latter consolidate smaller shipments into larger volume lots, thereby facilitating the negotiation of volume discounts from the carriers.

While third party agents have long existed in international liner shipping, it has only been since the passage of OSRA that third party agents have significantly increased their efforts in rate negotiations. This new emphasis is one of the most important benefits that third party agents are likely to provide to small shippers. According to James Caron, Program Manager of Shipper and Exporter Assistance at the United States Department of Agriculture (USDA)[7], "We at the United States Department of Agriculture are very concerned how small and medium sized shippers will be effected by all of the new rules and regulations...We will conduct seminars and perform research to see the changes that deregulation brings...The areas that we will look at are the use of shippers' associations, freight forwarders, price discrimination, and the bargaining powers of small shippers compared to that of larger ones."

7. Personal letter to the authors. July 1999.

This content downloaded from 98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

TABLE 4

Comparison of Third Party Agents

	Freight Forwarders	NVOCC	Shippers' Association
Responsiblities	Logistics and frequently rate negation	Full service including taking possession of freight	Core competency is rate negotiation. Others handle logistics too
Potential Drawbacks and Benefits	Quality personalized service but some may not be ideal for negotiating with carriers	Quality personalized service but some may not be ideal at negotiating with carriers	Rate negotiation is core competency and members can use their own freight forwarder to obtain personalized services. However, associations may not be open to some shippers. They also require shippers to cede some control over their business to the association

There are three types of third party agents who provide an alternative to negotiating directly with a carrier-freight forwarders, non-vessel operating common carriers (NVOCC), and shippers' associations. Table 4 summarizes the functions of each one of these agents. In the authors' survey, of the 43 respondents who aligned with a third party agent, 22 joined a shippers' association and 21 aligned with a freight forwarder. None required the services of an NVOCC[8].

3.1. *Freight Forwarders*

A freight forwarder acts as the shipper's agent in negotiations with a carrier and handles logistical matters, such as booking space with a carrier, obtaining export clearance, arranging for products to be containerized, completing export documentation, arranging for cargo insurance, advising

8. Some shippers did utilize freight forwarders who are also licensed as an NVOCC. However, these shippers did not receive the additional services which are typically offered by an NVOCC; rather they hired the firm to act as a freight forwarder. Retailers and manufacturers of non-perishable, manufactured goods more commonly patronize an NVOCC than do shippers of perishable foods and commodities.

This content downloaded from 98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

on foreign import regulations, and providing guidance on packaging, marking, and labeling[9]. The freight forwarder's charges to the shipper typically include the carrier's freight rate, fees for specified services and 1.25 percent of the ocean freight rate as compensation for the agent's services.

While many of the logistical services that freight forwarders provide shippers have not been affected by OSRA, booking space with a carrier has become much more complex. Rather than taking the carriers' published tariffs as given, freight forwarders now have to engage in extensive negotiations with carriers in order to obtain the lowest rates. Freight forwarders differ in their bargaining relationships with carriers. International Freight Systems of Oregon[10] is confident in its ability to negotiate freight rates. "Some shippers are too small to get good rates. They need someone to help them. We have worked hard to cultivate a reputation and we have many large customers. As a result, the total volume of our business is sufficient to ensure that we get good rates for all of our customers." Other freight forwarders are not so optimistic. One company in Washington State concedes that it cannot always negotiate rates as low as what large shippers pay on Trans-Pacific lanes. A spokesman with the firm believes that the problem is his company's small volume of business.

Thus a shipper may not secure the lowest rate if its agent lacks the bargaining power to negotiate the most favorable rate for its client. The "principle-agent" problem may also compromise the likelihood that a shipper can obtain the lowest possible rate. The shipper (principal) wants the freight forwarder (agent) to extend maximal effort in negotiating a freight rate. However, the freight forwarder may not have the same incentive to push for the lowest possible rate, since the agent is able to pass rates that are above the lowest possible freight rate on to the client. This problem is further compounded by the inability of shippers to exactly monitor the behavior of their agents and the wide range of services a freight forwarder provides.

9. Information on freight forwarders was obtained partly through the USDA AMS website.

10. International Freight Systems of Oregon is a Portland, Oregon-based freight forwarder. Many of its customers are exporters of forest products as well as some agricultural goods. Telephone Interview. 18 July 1999.

This content downloaded from 98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

3.2. *Non-Vessel Operating Common Carriers*

A non-vessel operating common carrier (NVOCC) provides many of the same services as a freight forwarder. However, a key difference between this type of agent and a freight forwarder is that an NVOCC takes over physical control of his customer's consignment. The law therefore requires the agent to obtain a carrier's license although the firm does not posses its own ships[11].

An NVOCC books capacity with carriers oftentimes by signing its own service contracts. It then resells this capacity to individual shippers as a part of a "bundle" of services similar to those offered by freight forwarders[12]. Some NVOCCs, such as Expeditors International of Washington, are sufficiently large and posses the bargaining power to negotiate effectively with carriers[13].

NVOCCs collect revenue by charging a mark-up over cost, which includes the freight rate that the NVOCC pays to the carrier as well as the costs of handling logistical matters. Thus, an NVOCC sells its services as a bundle of commodities, and does not price each service separately. Typically an NVOCC charges its customers a freight rate slightly higher than what it pays to the carrier and then adds a fee for its services.

A shipper's ability to obtain the lowest possible rate from an NVOCC may be compromised by the "client-provider" relationship between these two parties. The shipper (client) wants the NVOCC (provider) to not only extend maximal effort in negotiating a freight rate with carriers but to pass along these savings. However, the NVOCC might be able to achieve its maximum profit by a combination of less effort to negotiate lower freight rates and higher fees to the shipper.

3.3. *Shippers' Associations*

Shippers' associations are the third type of agent to assist shippers in the transport of their goods. These agents are not "intermediaries" but cooperatives[14]. Specifically, shippers' associations can be viewed as a private

11. Information on NVOCCs was obtained partly through the USDA AMS website.
12. Such shipments are frequently called "LCL" shipments for "less-than-containerload."
13. Expeditors International of Washington. Personal interview. 2 Aug. 1999.
14. The FMC currently classifies shippers' associations as shippers whereas it classifies freight forwarders and NVOCCs as "ocean transportation intermediaries."

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

good club. As argued by McGuire (1972) and Sorenson, Tschirhart, and Whinston (1978), members form the club in order to benefit from the collective purchase of the club good. In the case of shippers' associations, individual shippers increase their bargaining power by pooling their cargo and collectively negotiating contracts with carriers. Furthermore, the shippers' association strives to economize on the costs of using liner shipping, in consonance with the incentives of the individual members. Thomas C. Rourke, founder of the National Unaffiliated Shippers Association, reports that ocean carriers are beginning to realize that dealing with diverse small and medium-sized shippers through a single group is an efficient way to do business[15].

Shippers' associations charge their members for services rendered in two ways. The first way is to charge each member a flat membership fee. This method is regressive towards smaller shippers in that shippers of smaller volume lots pay a higher fee per container because they cannot spread this cost over as many containers as larger shippers. A second way is to charge a graduated mark-up on containers shipped. For example, an association's charges might range between $10 and $99 per container based on the number of containers handled on the shipper's behalf. Once again, shippers of smaller volume lots pay the highest fee per container.

These pricing strategies of shippers' association can be explained by the differences between what smaller and larger members contribute to the association. According to the analysis of Sorenson, Tschirhart, and Whinston (1978), private good club members receive their Shapley Value, an assignment of the share of the club's rents proportional to the member's contribution. In international ocean liner shipping, large shippers generate a disproportionate share of the efficiency gains. Hence, they are rewarded with a proportionately large share of the rents.

The regressive structure of the Shapley Value can bar some shippers from membership in some shippers' associations. According to Glenn Cella of the American Institute for Shippers' Associations (AISA) in Washington, D.C., the application from a prospective member will only be accepted if the applicant is considered to be financially reliable and if its freight requirements mesh with the association's operations[16]. It has been reported that some shippers' associations tend to exclude membership of small-volume, irregular-lot shippers. According to one shippers' association, such

15. Mongelluzzo, 13 Mar. 2000.

16. AISA. Personal Interviews. August 1999 to August 2000.

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

TABLE 5

Shippers Choosing an Association by Commodity

Lumber and Engineered Wood Products	57%
Meats and Poultry	60%
Fresh Fruits and Vegetables	75%
Processed Foods and/or Multiple Types of Food Products	20%

shippers would demand too much of the cooperatives resources while contributing very little to the association's ability to negotiate with carriers.

The benefits of shippers' associations also seem to vary with the type of commodity. As suggested by the data in Table 5, shippers of more heterogeneous products like processed foods and value-added wood products have less incentive to join a shippers' association than shippers of more homogeneous goods like produce and meats. This might reflect differences in the nature of services provided by an association. For example, shipping arrangements are more easily meshed with the needs of the members, when the members are relatively homogeneous than when the members are heterogeneous. According to one exporter of forest products in the Pacific Northwest who values the flexibility of being in charge of his own business, "There are advantages to being independent".

Different shippers' associations provide different ranges of service. Some associations provide a complete range of services to members. These associations take possession of their member's cargo and provide a complete menu of logistical support. Such associations even tend to have arrangements with providers of inter-modal transportation in order to provide door-to-door service. However, membership in such an association does not oblige the shipper to utilize her cooperative's logistical support. A member may utilize one of the association's contracts but hire an outside freight forwarder to handle other matters.

A second type of shippers' association is known as a "rate negotiator" shippers' association and does not even attempt to provide the same logistical support as freight forwarders and NVOCCs. Rather these associations limit themselves to negotiating rates leaving other logistical services to a freight forwarder of the shipper's choice. The Pacific Northwest Asia Shippers' Association, PNASA, is one such association. Many of its shippers already have a close relationship with a particular freight forwarder and want to continue the relationship.

The Food Shippers' Association of North America, FSANA, is an example of a rate-negotiator association, which has enjoyed growth as a result

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

of the changing institutional framework. This association was founded in 1996 around a core group of companies engaged in the export of frozen and chilled foodstuffs. FSANA had only a handful of members initially and shipped primarily apples. It now has 56 members and contracts with a variety of carriers to ship refrigerated cargo and dry cargo to Asia, Latin America, Europe, the Mideast, and Russia. Moreover, growth is proving to be a virtuous cycle for FSANA. The association reports that most of its cooperative's growth occurred in 1998 when firms first realized that OSRA was going to pass Congress. Indeed, 40 members joined in that year alone. Strong growth is now expected to continue as FSANA markets itself to newcomers. "The Association continues to grow larger and stronger, which benefits members even more"[17].

The growth of PNASA, FSANA, and others suggests that shippers' associations may be superior to other types of third party agents. According to AISA's Glenn Cella, "They are a means by which the small and medium-sized shipper, and even the large shipper, can obtain economies of scale without the markups charged by other transportation intermediaries".

The advantages of shippers' associations over other types of third party agents are easy to see. Shippers' associations are generally large enough to effectively negotiate with carriers and are not as susceptible to the difficult relationships that may exist between shippers and other types of third party agent. The relationship between a shipper and a cooperative is not prone to the client-provider relationship because the cooperative does not derive profits from the freight rate that a member pays. The relationship is also less prone to the principal-agent problem than the relationship between a shipper and a freight forwarder. Shippers' associations have no incentive to pass along higher rates to shippers by bundling rate negotiation with other services.

4. CONCLUSIONS

OSRA promotes a market-driven environment for the determination of rates and conditions of service in ocean liner shipping in the United States foreign trade. The impacts of these changes are likely to include the following: Because of the new set of incentives facing carriers and shippers, there will be a growing reliance on private contracts and a diminished role

17. PNASA. Personal Interview. 20 July 2000.

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

for collusive agreements among carriers. The profitability of carriers will increasingly depend on obtaining long-term contracts with shippers of large volume, recurrent lots. Many small and medium-sized shippers will find it beneficial to utilize third party agents. Shippers' associations are likely to play a significant role in negotiating rates for small and medium-size shippers that are comparable to the rates offered to large shippers.

REFERENCES

CNNFN. "House Oks shipping bill." 5 Aug. 1998. <http://www.cnnfn.com>.

Cullinane, Kevin and Mahim Khanna. "Economies of Scale in Large Container Ships." *Journal of Transport Economics and Policy* 33 (1999): 185-207.

Deakin, B.M. and T. Seward. *Shipping Conferences. A Study of their Origins, Development, and Economic Practices.* London: Cambridge at the University Press, 1973, 13-42.

FMC. "The Ocean Shipping Reform Act: An Interim Status Report." June 2000. <http://www.fmc.gov>.

Joskow, Paul. "Contract Duration and Relationship-Specific Investments: Empirical Evidence from Coal Markets." *American Economic Review* 77 (1987): 168-85.

McGuire, Martin. "Private good clubs and public good clubs: Economic models of group formation." *Swedish Journal of Economics* 74 (1972): 84-89.

Masten, Scott. "The Organization of Production: Evidence from the Aerospace Industry." *Journal of Law and Economics* 27 (1984): 403-17.

Mongelluzzo, Bill. "Pacific shippers say law is working." *The Journal of Commerce* 17 Sept. 1999.

Mongelluzzo, Bill. "NCBFAA Shippers Association enters the fray." *The Journal of Commerce* 13 Mar. 2000.

Mongelluzzo, Bill. "Discussion groups find voice under OSRA." *The Journal of Commerce.* 10 April 2000.

Neel, Richard, Carl Gooding, and Jerry Padgett. "Proposed Ocean Shipping Reform Act's Likely Effects on Conferences and Rates." *International Advances in Economic Research* 2 (1996): 477-83.

Sorenson, John, and Andrew Whinston. "Private Good Clubs and the Core." *Journal of Public Economics* 10 (1978): 77-95.

Spillenger, Paul. "House panel to get reform update." *The Journal of Commerce.* 3 May 2000.

Stewart, Hayden G. and Fred S. Inaba, "Ocean Liner Shipping. Organizational and Contractual Response by Agribusiness Shippers to Regulatory Change", *Agribusiness: an International Journal,* Vol. 19, N.A, 2003.

United States. Advisory Commission on Conferences in Ocean Shipping, 1992. *Report to*

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms

the President and the Congress of the Advisory Commission on Conferences in Ocean Shipping. Washington: The Commission, 1992.

United States. House of Representatives. Committee on Government Operations. Information, Justice, Transportation, and Agriculture Subcommittee. *The relationship of maritime policy to U.S. agriculture exports: hearing before the Information, Justice, Transportation, and Agriculture Subcommittee on Government Operations.* One Hundred Third Congress. Washington: G.P.O, Sept. 30, 1993.

Williamson, Oliver. "Transaction-Cost Economics: The Governance of Contractual Relations." *Journal of Law and Economics* 22 (1979): 233-61.

This content downloaded from
98.97.45.231 on Tue, 25 Jun 2024 15:56:30 +00:00
All use subject to https://about.jstor.org/terms