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An Analysis of the Philippine Inter-Island Shipping Industry

by

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AN ANALYSIS OF THE PHILIPPINE INTER-ISLAND SHIPPING INDUSTRY*

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Abstract

The paper provides an economic assessment of the state of inter-island shipping in the Philippines, with emphasis on the efficiency implications of the industry's structure and the regulatory policies supporting the industry's organization. It is argued that the maze of regulatory policies governing inter-island shipping severely restricts competition in the provision of shipping services, promotes rent-seeking activities at the expense of the users of these services and of the general public, and creates bottleneck in the movement of goods and people.

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I. Introduction

In view of the archipelagic nature of the Philippines, inter-island shipping provides the main economic lines for the movement of goods and people. In recent years, it has accounted for about 85 percent of the inter-island cargo movements, approximately 50 percent of the total inter- and intra-island traffic movements (in terms of ton-kilometers), and nearly 10 percent of the passenger traffic movements (in terms of passenger-kilometers) nationwide.

Critical issues have lately been raised regarding the structure and conduct of the inter-island shipping industry. Foremost of these relate to the efficiency of the industry in providing inter-island shipping services and to the role of the various government agencies regulating the industry. These issues particularly gained importance following the sinking of the passenger vessel MV Doña Paz in 1987, which claimed more than 4,000 lives (thus becoming the world's worst maritime accident in recent decades), and of MV Doña Marilyn in 1988. There have also been persistent claims by some sectors, including the Department of Agriculture, regarding serious bottlenecks attendant with the inter-island movement of agricultural and industrial goods.

This paper provides an economic perspective on the state of domestic inter-island shipping, with emphasis on the implications of the industry's structure, including regulatory policies supporting the industry's orgnization, on the efficiency of providing shipping services. It is argued that the maze of

regulatory policies governing inter-island shipping severely restricts competition in the provision of shipping services, promotes rent-seeking activities at the expense of the users of these services and of the general public, and creates bottlenecks in the movement of agricultural and industrial goods.

II. Industrial Organization and the Policy Environment

Of the approximately 8,805 vessels comprising the inter-island fleet in 1987, nearly 55 percent is accounted for by fishing vessels (Table 1). The rest are mainly tramps (30 percent) and liners (11 percent)[1]. However, in terms of tonnage capacity, tramps and liners account for 56 and 14 percent of the total, respectively, with fishing vessels largely representing the remaining 30 percent. Excluding fishing vessels from the inter-island fleet, about one-fourth of the total domestic freight movements by water are contributed by scheduled liners. Of the 936 liner vessels, about 80 percent of the total capacity is owned by members of the Conference of Inter-island Shipping Operators (CISO) which functions as a cartel with varying degrees of control. Five of the members dominate the organization.

Mostly imported second-hand from Japan, liner ships owned by the CISO member-operators have an average age of 19 years (a liner vessel has a normal 30-year life), with pure cargo ships generally younger than passenger cargo ships. As shall be noted below, partly explaining for the relatively younger age of pure cargo ships is the nature of pricing policies which allowed for a

continued deterioration of passenger rates vis-a-vis cargo freight rates.

The government owns nearly 65 percent of the approximately 930 river and seaports in the entire country. The bigger volume of cargo thruput, however, passes through the private ports, taking about 60 percent of the total.

The inter-island shipping industry is perhaps one of the country's most regulated industries. Commonwealth Act No. 146, otherwise known as Public Service Act, provides the early basis of this regulation. The Act declared the domestic shipping industry as a "public utility" industry and vested the Public Service Commission (PSC) with quasi-judicial responsibility to regulate the industry. The Reorganization Decree of 1972 (PD No. 1) subsequently transferred this function to the then newly-created Board of Transportation (BOT). This decree empowered BOT the authority to issue, amend, revise, suspend or cancel the Certificate of Public Convenience (CPC) or permits authorizing the operation of domestic public transportation. With the abolition of BOT in 1985 (through Executive Order No. 1011), the regulation of the domestic transport industry was allocated between the Land Transportation Commission and (LTC) and the Maritime Industry Authority (MARINA). LTC, created out of the merger of Bureau of Land Transportation (BLT) and BOT, became the regulatory agency for public land transportation services. The regulation of domestic water transportation became the quasi-judicial function of MARINA.

The rates charged by owners and operators of liner services and the control of entry and exit of shipping vessels fall into the regulatory domain of MARINA. MARINA's adjustments in the rates are based on the difference between the operators' required revenue and actual revenue, where required revenue is that which sufficiently covers operating costs and a reasonable rate of return (taken to be 12 percent per year) on investments. Its control on entry and exit of shipping vessels is based on the premise that there are substantial scale economies in the provision of shipping services.

The development of public ports, on the other hand, falls within the domain of the Philippine Ports Authority (PPA). Created in 1974 (PD No. 505), PPA's corporate power includes the regulation of port services, the selection of port operators, and the determination and collection of levies for port-related services.

The protection of public safety forms another basis for the regulation of the industry by still other government agencies. Before a vessel can sail or before a cargo can be shipped, clearances must be secured from at least seven government agencies. These include the Bureau of Customs which issues entrance and departure clearances; the Postal Service Office, postal clearance; the Department of Agriculture's Bureau of Plant Industry and Bureau of Animal Industry, sanitary/quarantine clearance; the Philippine Constabulary, anti-carnapping

clearance; the Philippine Coast Guard, seaworthiness clearance; and the PAGASA, weather clearance.

III. Cost and Price of Shipping Services

Since 1974, PPA has adopted various measures aimed at fostering efficiency in the provision of port services. In practice, these have stifled competition and made the provision of shipping services costly for the general public. Among the measures are (a) the one-port-one-operator policy, effectively granting monopoly rights to port operators in practically all public ports; (b) PPA's collection of a percentage share in port operators' revenues, in both public and private ports; (c) the "license" given to port-handling monopolists to collect fees from shippers and shipowners even if there is no work performed; (d) PPA's prohibition to ship operators from using private ports; and (e) compulsary pilotage in all public and private wharves and piers.

PPA's one-port-one-operator policy is based on the premise that there are scale economies in the provision of port handling services. There appears, however, to be no compelling justification for this argument. The production of port handling services in many public ports requires neither large-scale machinery nor central management, both of which could be possible sources of scale economies. Also, even if there are scale economies, efficiency in port handling can still be obtained provided that conditions for free entry and exit prevail (i.e.,

if the market is contestable). Any excess profits, or any inefficiencies on the part of incumbent firms, will serve as an inducement for potential entrants to enter.

In return for the exclusive right to operate in public ports, port operators are required to remit to PPA 10 percent of their gross revenues.[2] It is easy to see that, given this scheme, the price of port handling services is not only higher than the price that would prevail in a competitive environment, but also higher than what the monopolist would charge in the absence of the gross revenue tax collected by PPA. In Figure 1, the price that would prevail in the absence of the PPA's share of the monopolist's gross revenue is P'. With PPA's gross revenue share, the effective demand curve D' faced by the monopolist is below the actual market demand curve D. The gross price of port handling services is P'', and the net price received by the monopolist is P'''. The difference P'-P'' is PPA's share per unit of port handling services sold.

Aside from the exclusive right to provide cargo handling services, PPA also authorizes port operators who do not have the required cargo handling equipment, to collect the PPA-approved handling fees for work not performed. That is, port handlers get 65 percent of the remaining 90 percent of the arrastre fee (10 percent goes to PPA). The shipping lines owning the equipment in effect pay 68.5 percent of the fee for work not performed. In the case of roll-on-roll-off (Ro/Ro) vessels which do not require

arrastre and stevedoring services, the present practice is for port handlers to collect handling fees.

In private ports where maintenance and repairs are borne by the operators, PPA collects its share on the cargo handling operation of these ports, based on the imputed value of its share (10 percent) on the gross revenue of port operators in public ports. Although the share has been reduced from 10 percent to 5 percent, this practice unreasonably adds to the cost of port handling operations.

Handling costs in public ports can easily exceed the net sea freight, particularly for short distances. In the Cebu-Dumaguete run (70 nautical miles), for example, handling costs surpass the net sea freight by about 40 percent (Table 2).

Ideally, one would like to compare the efficiency of port handling in public ports where there are monopolies, with that in private ports where there are no monopolies. Based on the limited data collected from private shippers, handling costs in private ports are only about one-fourth of those in public ports (Figure 2).

If private ports offer less costly port handling services, why would not commercial shippers and ship operators use private ports? Unfortunately, under the PPA's regulatory system, private ports are barred from accepting commercial cargoes and ships other than their own, thus effectively guaranteeing the use of public ports.

Another area of port handling where monopolistic structure exists is in the use of harbor pilots. Pilotage services in both public and private ports are rendered only by licensed harbor pilots whose association, the United Harbor Pilots Association of the Philippines, makes up the pilotage cartel. Under the present regulatory system, shipowners do not have the option of providing their own harbor pilots.

PPA oversees the collection of pilotage--a fee charged by harbor pilots for guiding a vessel in and out of a river, port, estuary, or canal--in all government and private wharves or piers. Executive Order 1088, issued in February 1986 in response to the influence-peddling by the pilotage cartel, increased the pilotage by 5 to 20 times that prevailing in the mid-1980s, with the increases in the provinces higher than those in Manila. Although the pilotage remained somewhat constant for nearly a decade before the enactment of EO 1088, these sharp increases can be hardly justified on account of inflation alone. Between 1975 and 1985, the average annual inflation was only about 16 percent. In contrast, the pilotage adjustment mandated by EO 1088 amounts to a yearly increase of 40 to 190 percent. Also, there are neither additional services provided by the pilotage cartel nor payments made by it for any damages on the vessel or port facilities while the vessel is being piloted, both of which may partly warrant the sharp adjustment.

So far, little has been said about price determination of sea cargo and passenger services. While the prices charged by

the unscheduled contract carriers (tramps) are "competitively" set, those for scheduled liner vessels are not.[3] In addition to controlling entry (and exit) in inter-island shipping, MARINA, in consultation with CISO member-operators who control about 80 percent of the total capacity of liner vessels, determines the prices (or tariffs) charged by liner operators. In making price adjustments, MARINA considers the revenues that need to be generated by liner operators to sufficiently cover their operating costs and to provide a "reasonable" rate of return (in this case, 12 percent) on investments.[4] Accordingly, even chronically inefficient firms, which would normally be driven out of the industry if entry and exit are allowed or if the pricing is determined by some objective measure of efficiency, are made to earn profits. Moreover, there is no pressure on the part of shipowners to search for more efficient means of meeting the country's demand for shipping services.

Liner companies are entitled to charge freight rates based on either a MARINA-classified fare or an ad valorem. For purposes of freight rate setting, shipments are classified into four groups: Class A, mainly high-value manufactured goods; Classes B and C, mainly raw materials and low-valued nonagricultural products; and Basic, essential agricultural commodities. The rates, which are based on the value, not on the volume or weight, of the cargo, are highest for Class A and lowest for Basic which includes includes corn, rice, fruits, and vegetables. The low freight rate for the Basic class is intended

to make essential commodities available to the public at low cost.

In recent years, the freight rate for the Basic class has been 43-55 percent lower than the Class C rate applicable for relatively low-valued nonagricultural commodities. Accordingly, during peak seasons when the demand for shipping services increases substantially relative to existing capacity, shipowners shut out agricultural commodities from their preferential cargoes. One consequence is the sharp fall of the prices of agricultural commodities in producing regions (e.g., corn in Mindanao, the country's "corn bowl") during harvest seasons, particularly for highly perishable commodities. Also, the low volume of agricultural cargoes shipped into consuming regions induces a rise in the prices of these commodities, particularly in a regime where external trade is tightly controlled (as in the case of corn and rice). Thus, poultry and livestock producers in Metro Manila and neighboring provinces would find that corn, the main feedstuff in commercial poultry and livestock production, brought in from Bangkok or from the U.S. is cheaper than that shipped from Mindanao. In early 1989, this price difference was about 10 percent.

It is interesting to note that tramp rates, which are not regulated by MARINA, for basic agricultural commodities approximate the Class C rate for liners. For rice and corn, tramp rates are about 90 percent of Class C liner rates (Figure 3).

An alternative freight rate charged by ship operators is the value-based ad valorem. Commodities with a declared value exceeding P1,000 per ton or cubic meter can be charged an ad valorem. In 1928, the ad valorem rate was one-half percent of the declared value of the commodity or P5.00 per P1,000. Six decades later, the rate has become P73.33 per P1,000 of declared value. Accordingly, with inflation, the list of items charged with ad valorem freight rates has increased over time, even including many basic agricultural commodities, like bagged sugar. To match the inflation-adjusted ad valorem of P73.33, the threshold value for the ad valorem would have to be also adjusted for inflation, i.e., to about P15,000 per revenue ton.

While freight rates have, in general, increased more than thirty-fold since the 1930s, official passage rates have increased by only about fourteen-fold. In real terms, passage rates have become cheaper over time as they have not sufficiently risen with inflation (Figure 4). One consequence of this is a tendency among ship operators to overload passenger vessels with the more lucrative cargo shipments. Another consequence is passenger overcrowding. Safety and quality of services and facilities have thus suffered.

Interestingly, despite the fall in the real value of official passage rates over time, profits from passage fares alone have been enough to guarantee payback periods on passenger cum freight vessels, of generally less than two years.[5] That is, with the full cost of vessel ownership and operation debited to

passenger services, any revenue generated from freight services would constitute net profits.

Other factors exacerbating the problem of high costs of shipping services can be noted. First, fuel, which accounts for nearly 20 percent of the total operating expenses of local vessel operators[6], is 15 to 30 percent more expensive than in neighboring Singapore, Hongkong and Japan.[7] Second, domestic interest rates in the country (typically 17 percent and over) are higher than in most countries of the region. Third, insurance rates are high (about 4 percent) compared with those (around 2 percent) in neighboring countries. Finally, poor infrastructure, including power and cummunication, is a major bottleneck in the movement of goods and people, unduly increasing operating costs.

IV. Conclusion

The high costs of shipping services stem largely from the monopolistic structure of the shipping industry. PPA's one-port-one-operator policy, which is, to be sure, a carry-over from the previous administration, virtually isolates its chosen port operators from competition by potential entrants and thus effectively removes any pressure for the former to supply port handling services to users at the least cost possible. This is further aggravated by PPA's dependence of revenue largely from its share of the gross revenues of port operators.

The presence of a cartel in the liner services, supported by the MARINA's regulatory policies restricting market entry and

price flexibility, is another factor that tends to raise shipping costs. Scale economies, and the attendant "market failure" associated with it, has often provided a justification for continued restriction of market entry. This argument, however, is not a compelling one. Provided that conditions for free entry and exit prevail (i.e., the market is contestable), even scale economies are not a sufficient impediment to obtaining efficiency in shipping (as well as in port handling). Any excess profits, or any inefficiencies on the part of incumbent firms, will serve as an inducement for potential entrants to enter.

In recent weeks, the PPA announced the implementing guideline for a "competitive strategy" in the provision of cargo handling services. This move is a response to the recommendations of a presidential task force formed early this year to look at the problems besetting the inter-island shipping industry.[8] It can also be seen as part of the government's compliance to the provisions of the Letter of Intent (LOI) submitted to the International Monetary Fund. The LOI explicitly calls for a restructuring of tariffs charged by PPA and the deregulation of inter-island shipping. The guideline, however, appears to provide only a "band-aid" solution to the problems discussed above. First, the criteria for selection of port operators are complex and vague, thereby permitting the exploitation of "loopholes" by affected parties. Second, only a limited number of the country's public ports are covered by the "competitive strategy." And third, the guideline does not give

users of port handling services the option to provide their own port handling needs if it is to their advantage to do so. Where users have this option, the chance that existing port operators will supply the service at competitive rates, is likely to be relatively high.

Surprisingly, too, the above presidential task force fails to look carefully into the implications of the liner cartel and of MARINA's regulatory policies, on the problems besetting the industry. In compliance with the recommendations of the task force, MARINA has announced a reclassification of agricultural commodities from Basic to Class C, effectively raising the official tariffs on these commodities to Class C rates. Although this will, at least initially, likely ease the problem associated with the shutting-out of agricultural commodities from the liners' preferential cargoes, the move fails to provide a longer term relief to the agricultural sector (and to the non-agricultural sector as well) from high shipping costs arising from a monopolistic market structure. At the very least, for this relief to come to pass, the market would have to be deregulated from MARINA's grasp, thereby allowing competition not only among existing firms but also by potential entrants.

Finally, it should be pointed out that while inter-island shipping is recognized as a major bottleneck in the movement of people and goods, the problem of high domestic transport costs goes beyond shipping. Poor farm-to-market roads, insufficient storage facilities, and poor communication and power

infrastructure in the rural areas aggravate the problem. Thus, apart from the promotion of a competitive market environment, the development of rural infrastructure will have to be a key component of strategies designed to bring down the cost of shipping services.

NOTES

1. The Maritime Industry Authority (MARINA) defines liner vessels to be those which (a) offer their services indiscriminately to the public, (b) have regular ports of call or destinations, (c) have a fixed sailing schedule and sailing frequency, and (d) charge rates fixed by the government regulatory agency.

2. For 1987, the 10 percent levy on the gross revenues of arrastre and stevedoring companies, together with wharfage and storage dues, accounts for about 72 percent of PPA's total revenue.

3. Entry of new tramps is regulated by MARINA, although at a lesser extent than the control it imposes on new scheduled liner vessels.

4. Over the years, the CISO member-companies have comprised the sample utilized in the determination of price adjustments.

5. World Bank, "Philippines: Transport Sector Review," Report No. 7098-PH, March 1988.

6. Based on the 1987 consolidated income statement of the CISO member-companies.

7. Philippine Chamber of Commerce and Industry, Transportation: Catalyst in Agri Development (no date).

8. "Final Report of the Presidential Task Force on Inter-Island Shipping," February 1989.

Table 1. Philippine-registered domestic fleet, 1987.

Vessel Type	No. of Ships			Total GRT ('000) a/		
	Liner	Tramp	Total b/	Liner	Tramp	Total b/
Passenger/Cargo	162	0	205	33.3	0.0	35.6
Passenger Ferries	286	0	310	59.1	0.0	63.1
Cargo Ships	472	1535	2101	16.3	251.9	275.3
Passenger & Pure Container	14	5	20	26.3	17.1	43.5
Barges	1	529	534	0.1	213.8	214.5
Fishing	0	0	5005	0.0	0.0	256.1
Others c/	0	556	630	0.0	48.5	57.9
Total	935	2625	8805	135.1	531.3	946.0

a/ Gross Registered Tonnage, one ton being equivalent to 100 cubic feet.

b/ Figures for liners and tramps may not be equal to Total due to difficulty in the classification of some ships.

c/ Include pleasure yachts, general purpose vessels, and tugs.

Source: MARINA

Table 2. Shipping Cost of Selected Commodities by Major Port Links, Breakbulk, January 1989.
(Pesos per Revenue Ton unless otherwise specified)

Cost Component (distance in nautical miles)	Cebu-Manila (392)	Iloilo-Manila (340)	Davao-Manila (829)	Cagayan de Oro-Cebu (135)	Cebu-Dumaguete (70)	Zamboanga-Cebu (252)	Zamboanga-Manila (512)
A. RICE							
Arrastre, Origin	15.90	12.10	19.03	18.98	15.90	16.67	16.67
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	6.93	7.15	7.15	7.15	6.93	5.72	5.72
Net Sea Freight	72.63	72.57	150.74	41.25	28.03	32.18	95.46
Stevedoring, Destination	7.15	7.15	7.15	5.72	5.72	6.93	7.15
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	19.03	19.03	19.03	19.09	17.60	15.87	19.03
Total Port-to-Port Cost	124.93	121.30	206.40	92.28	77.48	80.68	147.33
Share in Total Cost (%)							
Arrastre and Stevedoring	39.2	37.5	25.4	51.7	39.6	56.0	33.0
Net Sea Freight	58.1	59.8	73.0	44.7	36.2	39.9	64.8
Wharfage	2.6	2.7	1.6	3.6	4.3	4.1	2.2
B. CORN							
Arrastre, Origin	18.69	18.32	19.03	20.06	18.69	16.67	16.67
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	6.93	7.15	7.15	7.15	6.93	5.72	5.72
Net Sea Freight	72.63	72.57	150.74	39.93	28.03	32.18	95.46
Stevedoring, Destination	7.15	7.15	7.15	6.93	5.22	6.93	7.15
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	19.03	19.03	19.03	18.69	19.14	18.89	19.03
Total Port-to-Port Cost	127.73	119.52	206.40	96.08	81.82	83.49	147.33
Share in Total Cost (%)							
Arrastre and Stevedoring	40.6	36.5	25.4	55.0	61.7	57.5	33.0
Net Sea Freight	56.9	60.7	73.0	41.6	34.3	38.5	64.8
Wharfage	2.6	2.8	1.6	3.4	4.0	4.0	2.2
C. SUGAR, Refined							
Arrastre, Origin	18.09	18.09	23.54	23.71	18.09	16.67	16.67
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	6.93	7.15	7.15	7.15	6.93	5.72	5.72
Net Sea Freight	220.13	197.62	435.22	116.37	83.92	179.14	262.75
Stevedoring, Destination	7.15	7.15	7.15	6.93	5.72	6.93	7.15
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	19.03	19.03	19.03	18.09	17.60	18.09	19.03
Total Port-to-Port Cost	277.63	246.34	495.39	175.54	135.56	229.85	334.62
Share in Total Cost (%)							
Arrastre and Stevedoring	18.4	19.1	11.5	31.8	35.7	20.6	14.5
Net Sea Freight	80.4	79.6	87.9	66.3	61.9	77.9	84.5
Wharfage	1.2	1.3	0.7	1.9	2.4	1.4	1.0

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Table 2(Cont.). Shipping Cost of Selected Commodities by Major Port Links, Breakbulk, January 1989.
(Pesos per Revenue Ton unless otherwise specified)

Cost Component (distance in nautical miles)	Cebu-Manila (392)	Iloilo-Manila (340)	Davao-Manila (829)	Cagayan de Oro-Cebu (139)	Cebu-Dumaguete (70)	Zamboanga-Cebu (252)	Zamboanga-Manila (512)
1/							
B. LIVESTOCK - Large							
Arrastre, Origin	18.96	16.57	30.25	27.74	18.96	30.47	30.47
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	7.59	7.84	7.87	6.27	7.59	6.27	6.27
Net Sea Freight	164.09	145.91	314.30	77.32	54.94	117.62	206.86
Stevedoring, Destination	7.87	7.87	7.87	7.59	6.27	7.59	7.87
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	31.85	31.85	31.85	18.96	29.48	18.96	31.85
Total Port-to-Port Cost	233.65	213.33	395.42	141.18	120.54	184.21	286.61
Share in Total Cost (%)							
Arrastre and Stevedoring	28.4	30.1	19.7	42.9	51.7	34.4	26.7
Net Sea Freight	70.2	68.4	79.5	54.8	45.6	63.9	72.2
Wharfage	1.4	1.5	0.8	2.3	2.7	1.8	1.2
E. CANNED MILK							
Arrastre, Origin	26.90	17.38	30.91	28.00	26.90	16.67	16.67
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	6.30	7.15	6.90	7.15	6.90	5.72	5.72
Net Sea Freight	223.81	197.62	435.50	116.37	83.95	179.18	282.75
Stevedoring, Destination	7.15	7.15	7.15	6.93	5.72	6.90	7.15
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	32.12	32.12	32.12	26.90	25.52	26.90	32.12
Total Port-to-Port Cost	299.59	264.72	515.88	188.65	152.30	238.66	347.71
Share in Total Cost (%)							
Arrastre and Stevedoring	24.2	24.1	14.9	36.6	42.7	23.5	17.7
Net Sea Freight	74.7	74.7	84.4	61.7	55.1	75.1	81.3
Wharfage	1.1	1.2	0.6	1.7	2.2	1.4	0.9
F. DRESSED CHICKEN							
Arrastre, Origin	33.95	17.47		20.41	37.35	16.67	16.67
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	6.93	6.50		7.15	6.93	5.72	5.72
Net Sea Freight	139.77	124.51	285.46	70.36	59.98	111.78	179.02
Stevedoring, Destination	7.15	6.50	7.15	6.93	5.72	6.93	7.15
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	33.61	30.55	33.61	37.35	25.52	37.35	33.61
Total Port-to-Port Cost	224.70	188.83	329.52	145.49	138.80	181.74	245.46
Share in Total Cost (%)							
Arrastre and Stevedoring	36.3	32.3	12.4	49.4	54.4	36.7	25.7
Net Sea Freight	62.2	65.9	86.6	48.4	43.2	61.5	72.9
Wharfage	1.5	1.7	1.0	2.3	2.4	1.8	1.3

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Table 2(Cont.). Shipping Cost of Selected Commodities by Major Port Links, Breakbulk, January 1989.
(Pesos per Revenue Ton unless otherwise specified)

Cost Component (distance in nautical miles)	Cebu-Manila (392)	Iloilo-Manila (340)	Davao-Manila (829)	Cagayan de Oro-Cebu (135)	Cebu-Dumaguete (70)	Zamboanga-Cebu (252)	Zamboanga-Manila (512)
6. CANNED FISH, imported							
Arrastre, Origin	26.90	16.59	31.85	27.94	26.90	16.67	16.67
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	6.93	7.15	7.15	7.15	6.93	5.72	5.72
Net Sea Freight	223.13	197.62	435.22	116.37	99.62	179.14	282.75
Stevedoring, Destination	7.15	7.15	7.15	6.93	5.72	6.93	7.15
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	33.61	33.61	33.61	26.90	25.32	26.90	33.61
Total Port-to-Port Cost	301.01	265.41	518.27	188.58	167.99	238.65	349.19
Share in Total Cost (%)							
Arrastre and Stevedoring	24.8	24.3	15.4	36.5	38.7	23.6	18.1
Net Sea Freight	74.1	74.5	84.0	61.7	59.3	75.1	81.0
Wharfage	1.1	124.3	0.6	1.7	2.0	1.4	0.9
H. SCHOOL SUPPLIES							
Arrastre, Origin	37.35	16.59	28.82	27.94	37.35	16.67	16.67
Wharfage, Origin	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Stevedoring, Origin	6.93	7.15	7.15	7.15	6.93	5.72	5.72
Net Sea Freight	223.13	197.62	435.22	116.37	99.62	179.14	282.75
Stevedoring, Destination	7.15	7.15	7.15	6.93	5.72	6.93	7.15
Wharfage, Destination	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Arrastre, Destination	33.61	33.61	33.61	37.35	25.32	37.35	33.61
Total Port-to-Port Cost	311.46	265.41	515.25	199.03	178.44	249.10	349.19
Share in Total Cost (%)							
Arrastre and Stevedoring	27.3	24.3	14.9	34.9	42.3	26.8	18.1
Net Sea Freight	71.6	74.5	84.5	58.5	55.8	71.9	81.0
Wharfage	1.1	1.2	0.6	1.7	1.8	1.3	0.9

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Per head basis includes cows horses and the like.

Sources of data: MARINA and PPA.

Figure 1. Pricing of Port Handling Services

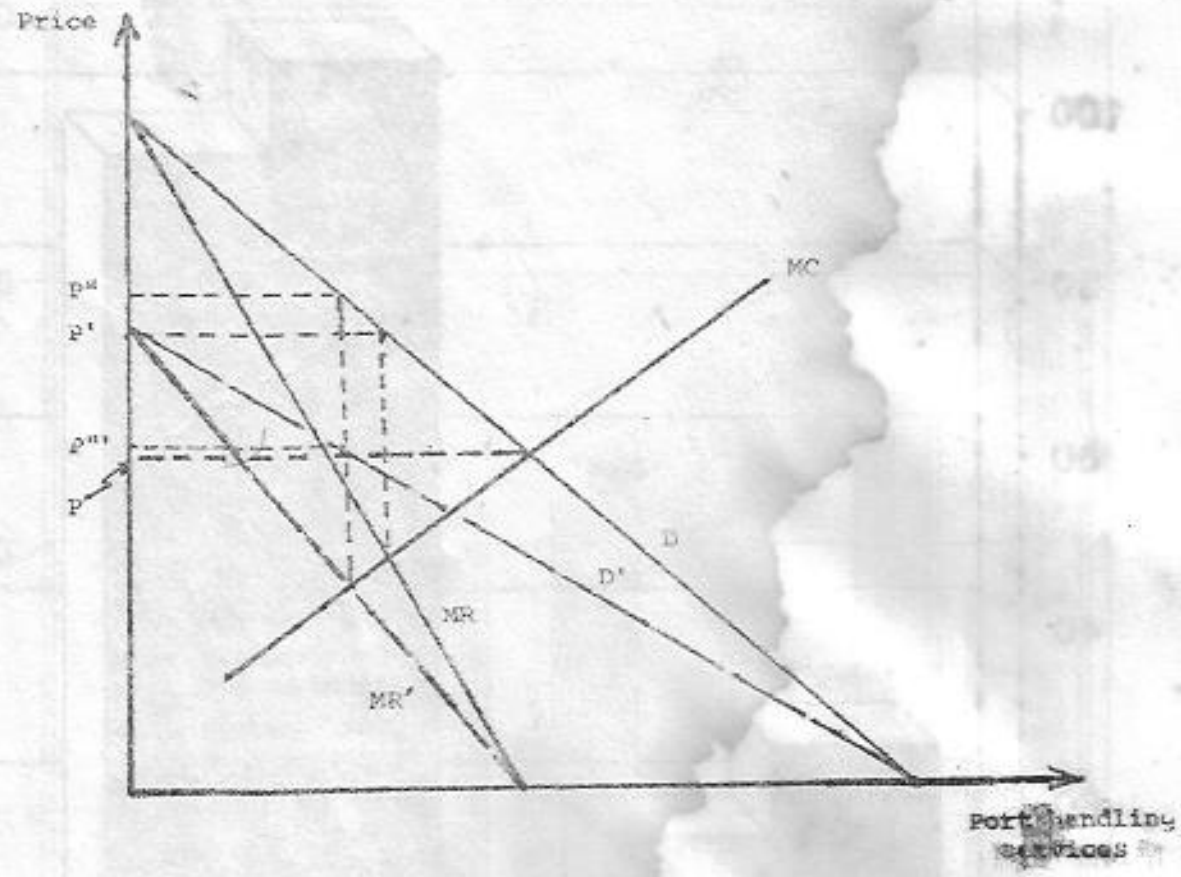
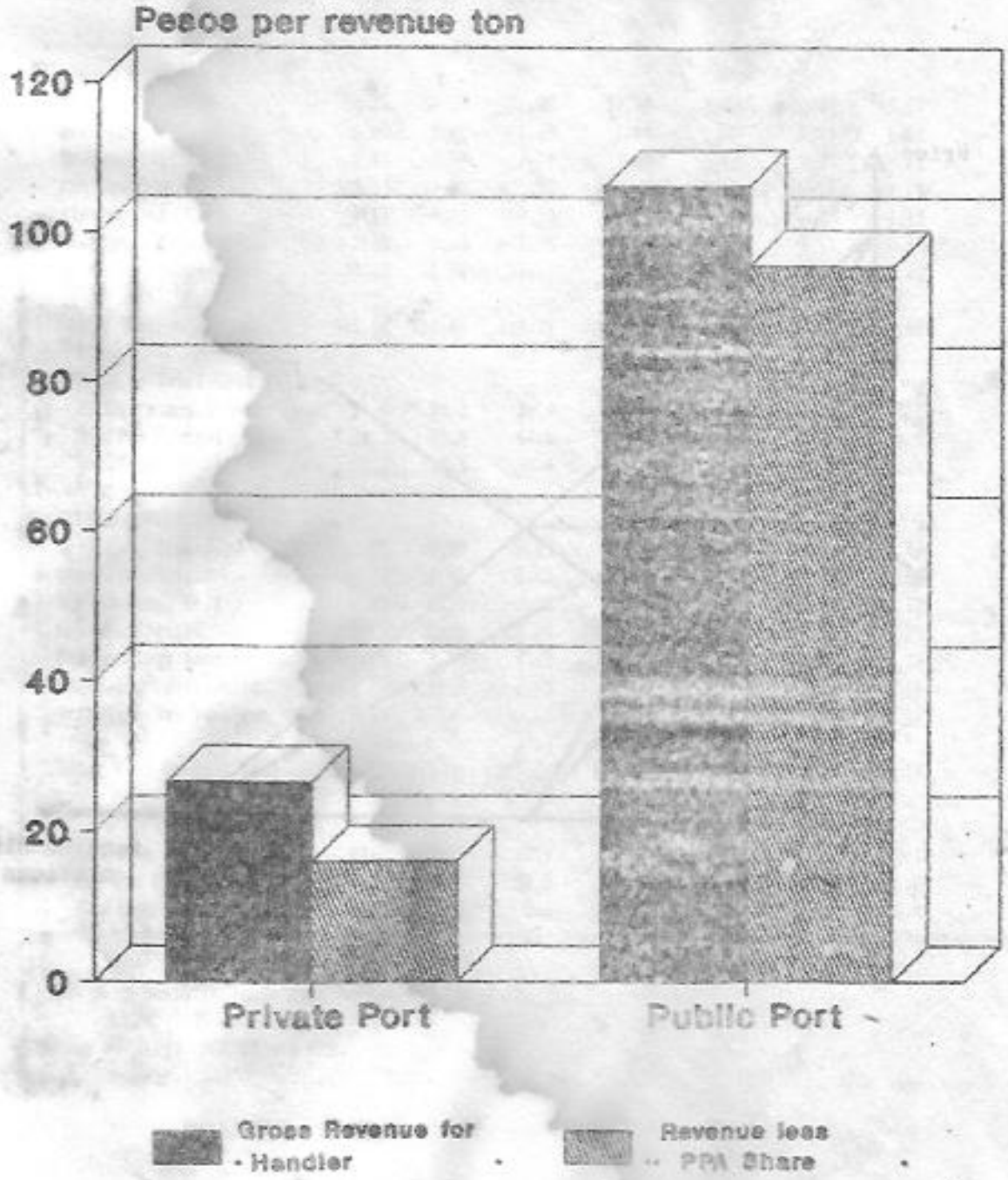


Figure 2. Handling Costs in Public and Private Ports, 1989



Note: Figures refer to the Cebu-Davao-Cebu route.

Figure 3. Comparative Freight Rates

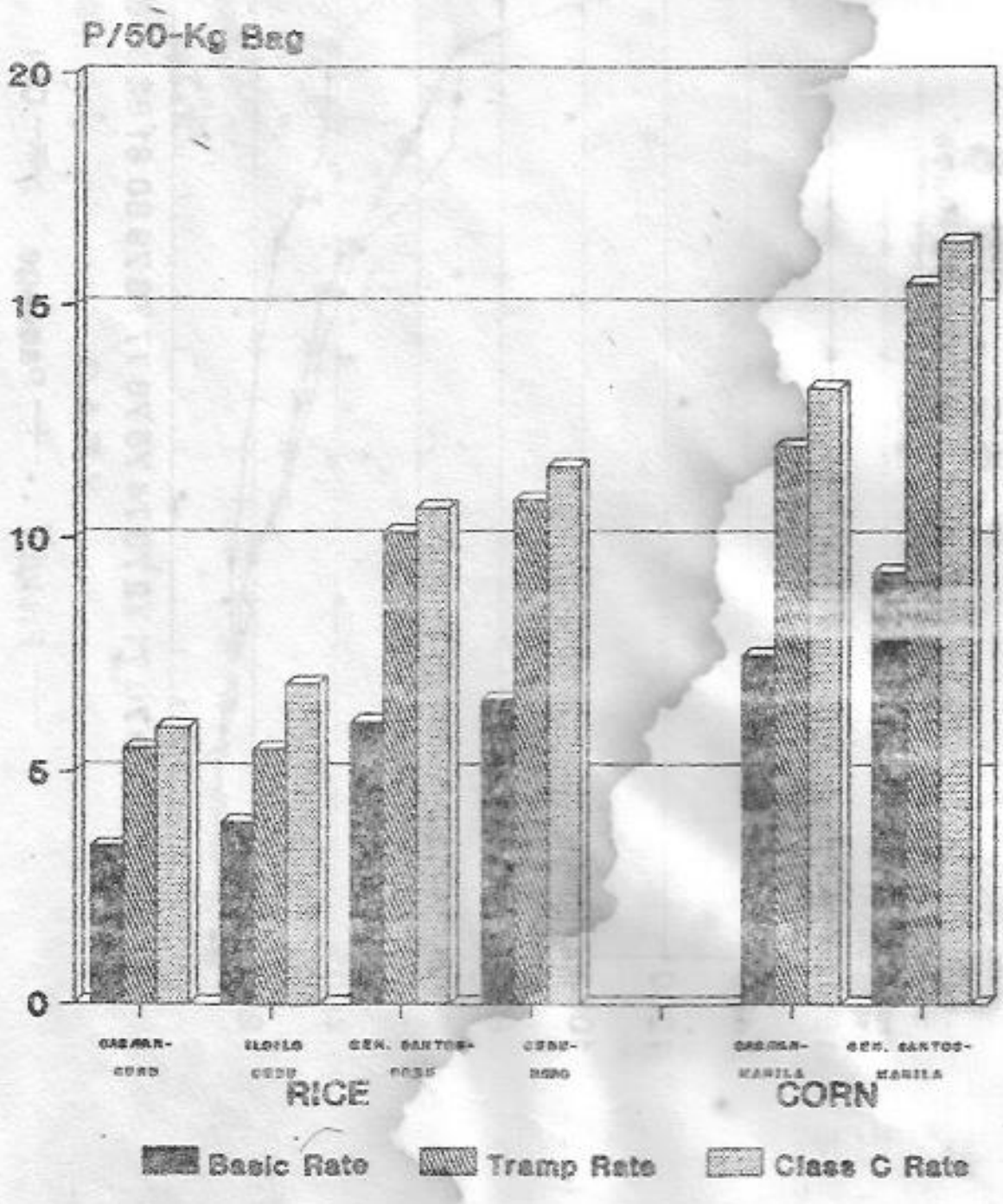


Figure 4. Freight and Passage Rates 1965-1988