CONFIDENTIAL

PUERTO RICO AND THE UNITED STATES COASTAL SHIPPING LAWS

This paper first attempts to compare present shipping rates, both for general dry cargo and bulk commodities, in the U. S. - Puerto Rican trades with estimated shipping expenses which might be experienced by foreign flag operators. Second, the paper evaluates the economics of opening the trades to foreign flag operators. Third, certain policy recommendations are set forth.

The appropriate current composite rate for northbound and southbound general dry cargo traffic is not known with certainty. The discussion which follows incorporates a rate of $26 per short ton. While this figure may be incorrect, it is believed that the error it may contain would not invalidate the conclusions for policy.

Briefly, the basis for the choice of the $26 rate is as follows. First, northbound movements of cement, molasses, petroleum and sugar have been excluded. Second, southbound movements of fertilizers and petroleum have been ignored on the ground that the volumes of these movements are in process of being sharply reduced.

The $26 rate is supported by a rate study made earlier this year by the Transport Economics Section, Office of Economic Research, Economic Development Administration. Puerto Rican Planning Board balance of payments data also suggest that the $26 rate is reasonable. Detailed balance of payments estimates for fiscal 1955 resulted in a value of 7.6 percent as the relationship of transportation costs to the value of imports. This percentage would yield a rate of about $24.40 per ton on fiscal 1957 imports of 1,975,000 tons from the Mainland valued at $635 million. However, between fiscal 1955 and fiscal 1957 the U. S. wholesale price index rose by about

6.5 percent while the increase in conference freight rates was 15 percent. The relatively greater rise in freight rates compared to the U. S. wholesale price index indicates that transportation costs as a percent of value of imports was higher in 1957 than in 1955. The indicated relationship is in excess of 8 percent which would amount to a per ton rate slightly in excess of $26 in relation to the fiscal 1957 level of imports. This computation, it should be noted, ignores the question of the post-fiscal 1957 increase of 12 percent in conference rates.

We will now turn to an estimate of foreign flag shipping expenses using the $26 rate as a basis of discussion.

The first step in estimating possible foreign flag expenses is to segregate those expenses of the foreign flag operator which would be identical with those of the U. S. flag operator.

The important common elements are stevedoring and fuel. The former is by far the more important.

Conventional Stateside cargo handling costs are probably of the order of $4.50 - $6.00 per ton, say $5.00 per ton. Data on Puerto Rican handling costs suggest a lower figure here, say $3.50 per ton. To this $8.50 per ton must be added vessel fuel costs which, at current prices, would be about 60 cents per ton.

In addition, such minor expense items as wharfage, dockage, and agency fees can be presumed to be identical for U. S. and foreign flag operators. Altogether, the foreign flag operator would probably have expenses identical with the U. S. flag operator amounting to about $10 per ton.

The remainder of $16 per ton is the amount which might be susceptible of reduction in foreign flag bottoms. By how much might a foreign operator reduce those shipping expenses which would vary from those of the U. S. flag operator: wages, subsistence, stores, repairs, etc.?

By far the most important element in the reduced shipping expenses of the foreign flag operator would be his wage bill. This bill might be of the order of 30 per cent of that of the U. S. flag operator.

The actual vessel wage bill of the operators in the U. S. - Puerto Rican trades is not known but it is a reasonable presumption that it is a smaller proportion of total expenses than stevedoring costs which we have estimated to be \$8.50 of a total of \$26 or approximately 33 per cent. Vessel wage costs probably are of the order of 25-30 per cent of total expenses; say 27 1/2 per cent or about \$7.15 per ton.

Assuming that the wage bill of a foreign flag operator is about 30 per cent of that of the U. S. flag operator, the reduction per ton would amount to \$5.

It has been estimated that about 80 per cent of Federal operating - differential subsidy payments are required to overcome the wage handicap of the U. S. flag operator. Assuming this relationship to be applicable to the U. S. - Puerto Rican trades, the total operating - differential expenses for a foreign flag operator would amount to \$6.25 per ton.

Should anything be added to this estimate of \$6.25 per ton to take account of the fact that foreign ship construction costs are lower than U.S. ship construction costs? The answer to this question is no. The source of U. S. flag vessels for the Puerto Rican - U. S. trades is war-built surplus vessels which are disposed of at prices which subsidize the U. S. purchaser.

The estimate of \$6.25 per ton therefore represents, on the assumptions we are using, the amount by which a foreign flag operator might reduce shipping expenses. The rough character of this estimate is self-evident.

As a general order of magnitude, it can be roughly tested by oil tanker experience. By turning to such experience there is automatically eliminated the major element of expense - stevedoring - which would be identical for U. S. and foreign flag operators.

On a long-term charter basis, a foreign flag tanker of medium size can certainly be operated profitably at a rate equivalent to USMC - 30%.* This is approximately the rate which obtains in the charter party (10 years) between Universe Tankships, Inc. and the Commonwealth Oil Refining Company of Puerto Rico. It is entirely possible that a modernized T-2 tanker under a foreign flag could be profitably operated on a long-term charter basis at an even lower rate, say USMC - 40%.

The arithmetic of this judgment implies that a foreign flag liner operator in the U. S. - Puerto Rican trades might effect a $6.40 per ton reduction in expenses (40% of $16 - the sum of the estimated variable components of shipping expenses).

What economic significance is there for Puerto Rico in this possible lower level - say $6-$7 per ton - of foreign flag shipping expenses, assuming the opening-up of the Puerto Rican - U. S. trades to foreign flag competition? Might some part or all of the estimated lower expenses be translated into lower rates?

Before discussing this question, it is desirable to recall that we have been concerned with the movement of general dry cargo. General dry cargo dominates the southbound movement to Puerto Rico and this dominance is almost certain to increase with the continuing declines to be expected in shipments of petroleum and fertilizer from the Mainland. Such a movement can be handled only through efficient and expanding liner services.

---

* United States Maritime Commission rates were a World War II development. These lost their legal status after the war but continue to be used as trade reference points. The basic concept of the rate structure was a fixed net revenue for a standard-sized (T-2), U. S. flag vessel.

The commodity composition of the northbound movement is the reverse of the southbound movement. But efficient and expanding northbound liner services are a necessary condition for successful industrial development.

If these judgments about the importance of the general dry cargo movement are valid, the shipping conference is probably a desirable evil. This paper will not enumerate and discuss the pros and cons of shipping conferences; the standard arguments can be found in, for example, "International Shipping Cartels" by Daniel Marx, Jr.

But the standard arguments do not get at the heart of the matter. The basic economic facts are that a liner service is both expensive to establish and is operated under conditions of sharply increasing returns. The first point is self-evident; the latter requires some explanation.

It is not merely that marginal costs are below average costs; marginal costs in a liner service are close to zero.* With this condition obtaining, free competition among liner services will work to the ultimate disadvantage of the purchasers of such services. This is so because competition under these extreme conditions of increasing returns must sooner or later result in some competing companies failing to cover their average costs. In plain language, some firms are going to go broke. The consequences of such operating conditions must ultimately be either monopoly or agreement on price maintenance, covert or overt.

The shipping conference is a form of overt price maintenance. It can also be properly described as a form of institutionalized corruption.

* This jargon can be translated by reference to the recent voyage of the SS Bienville to San Juan. The vessel carried approximately 1,600 tons of cargo. The vessel can accommodate substantially more than twice this amount. The costs involved in loading additional cargo up to the vessel's capacity would be near zero.

Opening up the Puerto Rican - U. S. liner trades to foreign flag competition would not mitigate this institutionalized corruption - price maintenance would in all probability continue to obtain.*

It may be objected at this point that foreign flag, non-conference liner operators could be attracted into the trades. But if the preceding economic evaluation of the liner service is sound, this result would in the longer term be detrimental to Puerto Rico's economic welfare - either monopoly or tacit price maintenance would be the consequence.

An alternative which might bring down and keep down liner rates would be a nationalized, foreign flag service of the Commonwealth of Puerto Rico. A Commonwealth of Puerto Rico vessel flying, say, the Liberian flag would however be something of an anomaly to say the least.

It is possible that a Commonwealth of Puerto Rico, U. S. flag service could be operated in the black but a necessary condition for such operation would be the highly-mechanized, trailership type of operation. Given the present and prospective troubles arising from such mechanization would it be wise for the Commonwealth to undertake a course of action which would transform its role from that of conciliator to principal in this disputed area?

We shall now examine briefly the field of tramp operations. By contrast with liner services, conditions of competition generally obtain in this area and with benefit to the purchaser of shipping services. For example, a

* Institutionally, such price maintenance would differ from that which obtains today in that it would take place outside the jurisdiction of the Federal Maritime Board. While the Board is itself an example of institutionalized corruption, it is probably in Puerto Rico's long-term interest to have price maintenance subject to Board review.

foreign flag shipment of U. S. coal from Hampton Roads to Rotterdam could probably be fixed today for little more than $3 per ton. Except for foreign flag competition, the rate would probably be in the range $7-$10. The volatility of charter markets occasionally pinches the purchaser as, for example, a year ago when the spot rate on petroleum shipments from the Caribbean to the U. S. East Coast was USMC ≠ 185% (Today the rate is USMC - 60%); but there can be no doubt that the consumer benefits from tramp competition.

Given the fact that tramp operations are highly competitive, might Puerto Rico benefit as a result of foreign flag competition?

Three commodities appropriate to tramping move northbound in substantial volumes. These are cement, petroleum and raw sugar. For a different reason in each case, foreign flag tramping is not attractive.

Because of the integration of Puerto Rican cement production and its transportation to the Mainland, there would be no market for a foreign flag operator.

The tramping of raw sugar in foreign flag vessels would result in reduced shipping costs. But a larger Puerto Rican economic interest overshadows the reductions in shipping costs which could be achieved through the foreign tramping of raw sugar. This larger interest lies in shipping Puerto Rico's sugar in refined form which is not a bulk cargo movement. It would therefore be unwise to rest any part of a case for foreign flag entry on the raw sugar movement.

Foreign flag shipments of petroleum to the U. S. East Coast would moderately enhance Puerto Rico's position as a location for petroleum refining capacity. But this argument must not be used so long as the U. S.

Voluntary Oil Import Program is in existence. Use of this argument would focus unwelcome attention on the U. S. East Coast marketing of a substantial portion of Puerto Rican refinery production.

Southbound, a sizeable movement of bulk grain is in prospect. The cost to the shipper of the one movement which has been arranged is believed to be of the order of $3 per ton. It is unlikely that foreign flag competition would reduce this rate.

On balance, foreign flag tramp operations hold no present prospect for improving Puerto Rico's economic position. Foreign flag operations over the whole range of cargo operations - liners and tramps, dry cargo and bulk liquids - offer no present prospect of reduction or stabilization of Puerto Rican shipping costs or of improvement in quality of service.

The only immediate prospect lies in the highly mechanized trailership type of operation for movement of general dry cargo. This type of operation beyond any question of doubt promises quality of service. And the mechanized nature of the service will introduce a measure of stability into the rate structure.

It has been reliably reported that trailership cargo is being loaded Stateside by Pan Atlantic (McLean) for 25 cents per ton. Even after allowance for substantial over-manning at the docks, it has been estimated that this type of vessel could be discharged here for about 50 cents per ton. Prospective loading and discharging costs combined would at the outside amount to no more than $1.00 per ton. Compared with the estimated $8.50 per ton conventional stevedoring cost, a $7.50 per ton reduction in handling costs is feasible. Such a reduction in handling costs would be greater than the estimated per ton differential between foreign and U. S. flag vessel expenses.

The mechanized trailership type of operation is suited to or can be adapted to the handling of practically all of the general dry cargo moving between Puerto Rico and the Mainland. With the extension of this type of service, which could be effected far more rapidly than any possible relief via foreign flag operations, shipping rates could be stabilized and possibly reduced. The caveat implicit in the phrase "possibly reduced" is in order because of the high capital cost of mechanized relative to conventional shipping operations. And these costs today would be even higher but for the fact that the conversion of U. S. war-built vessels contains in effect an element of Federal subsidy through purchase at relatively low prices of surplus vessels. A reconditioned C-2 is, for example, far cheaper to its purchaser than a new vessel would be. And the reserve of U. S. war-built surplus vessels suitable for reconditioning is not inexhaustible.

The problem can and should be stated positively - Puerto Rico needs the services of progressive shipping managements which have vessel replacement policies and the necessary reserve funds to give effect to such policies. If a part of such necessary reserve funds could be gotten from the U. S. Treasury in the form of subsidies so much the better. Thus, a possible purpose to be served by opening the Puerto Rican trades to foreign flag competition would not be the prospect of any direct lowering of rates by such competition but that indirectly such action would pave the way for eligibility of the U. S. trailership operator for construction - differential and operating subsidies. But this would appear to be second-order priority business; the first task is the establishment of U. S. flag mechanized trailership service to Puerto Rico.

No Federal subsidies are required to initiate this service; no case therefore could currently be made for them. When the block obsolescence of the U. S. merchant marine becomes nearer at hand; then, after successful experience with mechanized trailerships, the possibility may exist of getting Federal construction subsidies for such vessels on the ground that they incorporate features essential to the national defense.

Reverting to the immediate future, the question may arise; why not mechanized trailership operations under foreign flags? In this way, the economies of cargo handling would be achieved together with any possibilities, however remote, of translating reduced foreign flag vessel expenses into lower freight rates. Such an approach would be quixotic; if feasible at all, it would take many years to bring such foreign shipping services into existence.

To summarize, the economic conclusions of significance for policy are as follows:

1. The entry of foreign flag shipping into the northbound tramp movement would result in some reduction of shipping costs. To present a case for foreign flag entry on this ground would be short-sighted in that it would prejudice the larger economic stakes involved in maximizing Mainland sugar sales in refined form and avoiding artificial limitations on Mainland sales of refined petroleum products.

2. The entry of foreign flag liner operators using conventional vessels offers no realistic prospect of improved shipping services at lower and stabilized costs.

3. It is likely that a nationalized Commonwealth of Puerto Rico liner service operating conventional vessels under the U. S. flag could over the longer term reduce and stabilize rates only on a deficit basis.

4. U. S. flag mechanized trailership services exist which can effect a greater reduction in shipping expenses than the differential between U. S. and foreign flag vessel operating expenses.

5. Foreign flag operation of mechanized trailership services, if practicable at all in the Puerto Rican - U. S. trades, would take many years to establish.

6. No economic case currently exists for Federal subsidization of U. S. flag mechanized trailership operations.

The recommendations for Commonwealth of Puerto Rico action which flow from the preceding economic conclusions are as follows:

1. The Commonwealth should concentrate its resources to bring about establishment of privately operated U. S. flag mechanized trailership operations.

2. No attempt should be made at this time to eliminate or to modify the U. S. coastal shipping laws. To do so would be to create a climate of uncertainty which might adversely affect the institution of U. S. flag trailership operations.

3. No attempt should be made at this time to secure Federal subsidies for U. S. flag operations in the Puerto Rican - U. S. trade.

Economic Development Administration
Office of Economic Research
April 29, 1958

SVH/cmbg