Volume Title: Methods for Improving World Transportation Accounts, Applied to 1950-1953

Volume Author/Editor: Karreman, Herman F.

Volume Publisher: UMI

Volume ISBN: 0-87014-421-9

Volume URL: http://www.nber.org/books/karr61-1

Publication Date: 1961

Chapter Title: Tentative Analysis of the Records

Chapter Author: Herman F. Karreman

Chapter URL: http://www.nber.org/chapters/c2211

Chapter pages in book: (p. 56 - 63)

4

Tentative Analysis of the Records

So far, the discussion has dealt with statistical problems only, showing to what extent the information is deficient and describing attempts to fill the gaps in the records. The outcome is still far from satisfying. There are still big differences between payments and receipts, particularly in gross freights. Toward further improvement of these records, the last two sections indicate some methods for correcting the stated figures.

Despite all the imperfections, however, a first attempt is made here to explore the economic meaning of the figures as they are now, particularly the relationship between freight earnings and size of fleets. This relationship is examined for the years under study on the basis of the present information on gross freight payments and receipts, defective as it still is.

The information on freight earnings, moreover, is not yet complete. So far we have dealt with balance of payment figures only, i.e., with gross freights paid and received in foreign currency. But there are also freight earnings in domestic currency, paid by the importers of a country to the shipowners of the same country. It is clear that only the sum of these two types of freight earnings can be compared with the size of the fleets.

From the estimated freight on imports, the part of it paid to domestic carriers was separated out (see Table A-1). While most countries report the freight on imports earned by their domestic carriers, there are two notable exceptions, the United Kingdom and France, which do not report any freight on their imports. However, the freight on imports of these two countries in the four years of our study was computed (see Section 5), and the part of it earned by domestic carriers was estimated, as described in Section 2.

The total freight earnings are shown in Table 24, which contains two sets of figures, differing only in the gross freight paid and received in foreign currency. What was paid to and received by domestic carriers is, of course, the same in both sections, because it was reported by the same country; foreign currency accounts for about 39 per cent of freight payments and about 48 per cent of freight receipts.

A summary of percentage earnings of the United Kingdom, the nonsterling EPU metropoles, and the United States with Canada, is shown in the following tabulation.

	Partners' Records				*Area's Own Records*			
	1950	1951	1952	1953	1950	1951	1952	1953
U.K.	27%	26%	25%	25%	31%	30%	28%	28%
Non-£ metropoles	36	36	38	42	31	31	33	36
U.S. and Canada	22	22	20	17	24	23	22	20
	85	84	83	84	86	84	83	84

It appears that the three areas accounted for about 84 per cent of total earnings, whether recorded by partners as payments or by areas as receipts. The U.K. accounts for an average of about 28 per cent of earnings. The 3 to 4 per cent differences between partners' records and the area's own records in the four years are caused solely by differences in the earnings of all the other areas during those years. The amounts earned by the U.K. are the same in both records, having been estimated on the assumption that U.K. receipts are the same as partners' payments (Section 3). The nonsterling EPU metropoles account for an average of about 35 per cent of earnings. In contrast to the U.K. and the U.S., that area shows higher percentages in the partners' records than in its own, possibly owing to understatement of gross freight earnings in the area's records. The United States and Canada account for an average of about 21 per cent of earnings.

Comparing the percentages over time, we observe a decrease for the United Kingdom up to 1952 and an even sharper decrease for the United States and Canada. The percentage of the nonsterling metropoles shows, on the other hand, a sharp increase since 1951. These changes have little meaning unless related to the size of fleets operated in those years. Table 24 shows also the fleets in thousands of GRT as well as the percentage of the total each area had. The figures are taken from the Statistical Appendix of *Lloyd's Register,* Table 1 of Section 6 or 7 for the appropriate years. Of the tonnage figures for the merchant fleets of the world as of July 1 of each year, those for the vessels that earned the gross freights shown in Table 24 were pertinent. Accordingly some were omitted: the fleets of the Soviet bloc countries, since these countries do not report

TABLE 24

COMPARISON OF ANNUAL GROSS FREIGHT EARNINGS WITH SIZE OF FLEETS AS OF JULY 1
(amounts in millions of U.S. dollars; tonnages in 1,000 GRT)

Area	Foreign Currency	Domestic Currency	All Currency	% of Total	Size of Fleet [a]	% of Total
			1950			
		PARTNER'S RECORD OF PAYMENTS				
U.K.	865	364	1,229	27	18,318	27
Rest of £ area	45	20	65	1	2,069	3
Non-£ metropoles	1,263	376	1,639	36	20,908	31
Non-£ OT's	5	1	6	neg.	neg.	neg.
U.S. and Canada	641	346	987	22	14,378	21
Pan. Hon. Lib.	273	–	273	6	4,138	6
L.A.	63	32	95	2	2,287	4
Other areas	150	122	272	6	5,251	8
All areas	3,305	1,261	4,566	100	67,349	100
		AREA'S RECORD OF RECEIPTS				
U.K.	865	364	1,229	31	18,318	27
Rest of £ area	57	20	77	2	2,069	3
Non-£ metropoles	868	376	1,244	31	20,908	31
Non-£ OT's	–	1	1	neg.	neg.	neg.
U.S. and Canada	622	346	968	24	14,378	21
Pan. Hon. Lib.	219	–	219	5	4,138	6
L.A.	37	32	69	2	2,287	4
Other areas	58	122	180	5	5,251	8
All areas	2,726	1,261	3,987	100	67,349	100
			1951			
Area	Foreign Currency	Domestic Currency	All Currency	% of Total	Size of Fleet [a]	% of Total
		PARTNER'S RECORD OF PAYMENTS				
U.K.	1,311	582	1,893	26	18,657	25
Rest of £ area	79	32	111	1	2,076	3
Non-£ metropoles	2,062	580	2,642	36	22,537	30
Non-£ OT's	6	1	7	neg.	neg.	neg.
U.S. and Canada	1,216	430	1,646	22	18,347	25
Pan. Hon. Lib.	437	–	437	6	4,721	6
L.A.	98	90	188	3	2,365	3
Other areas	266	211	477	6	5,627	8
All areas	5,475	1,926	7,401	100	74,330	100
		AREA'S RECORD OF RECEIPTS				
U.K.	1,311	582	1,893	30	18,657	25
Rest of £ area	72	32	104	2	2,076	3
Non-£ metropoles	1,368	580	1,948	31	22,537	30
Non-£ OT's	–	1	1	neg.	neg.	neg.
U.S. and Canada	1,058	430	1,488	23	18,347	25
Pan. Hon. Lib.	425	–	425	7	4,721	6
L.A.	62	90	152	2	2,365	3
Other areas	120	211	331	5	5,627	8
All areas	4,416	1,926	6,342	100	74,330	100

(continued)

TABLE 24 (concluded)

Area	Foreign Currency	Domestic Currency	1952 All Currency	% of Total	Size of Fleet [a]	% of Total
		PARTNER'S RECORD OF PAYMENTS				
U.K.	1,290	508	1,798	25	18,733	24
Rest of £ area	97	35	132	2	2,119	3
Non-£ metropoles	2,093	594	2,687	38	24,076	31
Non-£ OT's	7	1	8	neg.	neg.	neg.
U.S. and Canada	1,023	455	1,478	20	18,148	24
Pan. Hon. Lib.	392	–	392	5	5,115	7
L.A.	91	109	200	3	2,539	3
Other areas	304	228	532	7	6,206	8
All areas	5,297	1,930	7,227	100	76,936	100
		AREA'S RECORD OF RECEIPTS				
U.K.	1,290	508	1,798	28	18,733	24
Rest of £ area	45	35	80	1	2,119	3
Non-£ metropoles	1,536	594	2,130	33	24,076	31
Non-£ OT's	–	1	1	neg.	neg.	neg.
U.S. and Canada	920	455	1,375	22	18,148	24
Pan. Hon. Lib.	458	–	458	7	5,115	7
L.A.	54	109	163	3	2,539	3
Other areas	137	228	365	6	6,206	8
All areas	4,440	1,930	6,370	100	76,936	100

Area	Foreign Currency	Domestic Currency	1953 All Currency	% of Total	Size of Fleet [a]	% of Total
		PARTNER'S RECORD OF PAYMENTS				
U.K.	1,076	449	1,525	25	18,692	24
Rest of £ area	68	26	94	2	2,227	3
Non-£ metropoles	2,025	536	2,561	42	25,646	33
Non-£ OT's	10	1	11	neg.	neg.	neg.
U.S. and Canada	650	420	1,070	17	15,331	20
Pan. Hon. Lib.	353	–	353	5	5,820	8
L.A.	69	77	146	2	2,797	3
Other areas	277	166	443	7	6,917	9
All areas	4,528	1,675	6,203	100	77,430	100
		AREA'S RECORD OF RECEIPTS				
U.K.	1,076	449	1,525	28	18,692	24
Rest of £ area	54	26	80	1	2,227	3
Non-£ metropoles	1,420	536	1,956	36	25,646	33
Non-£ OT's	5	1	6	neg.	neg.	neg.
U.S. and Canada	669	420	1,089	20	15,331	20
Pan. Hon. Lib.	385	–	385	7	5,820	8
L.A.	69	77	146	3	2,797	3
Other areas	118	166	284	5	6,917	9
All areas	3,796	1,675	5,471	100	77,430	100

neg. = negligible.

[a] From Statistical Appendix, *Lloyd's Register of Shipping,* Table 1 of Section 6 or 7 for the appropriate years. See the accompanying text for omission of fleets.

the gross freight earnings of their fleets;[28] the "moth ball" fleet of the United States and tonnages chartered out to the military authorities. The vessels operating in the Great Lakes are, however, included since both the U.S. and Canada report freight payments to and freight receipts from the other. No adjustments were made, however, for tonnages of other countries that were laid up in those years, since information was lacking for most countries. But, judging by the available information, only very small portions of the fleets were laid up, and the error cannot be sizable.

Several questions remained. One was whether allowance should be made for the fact that the ratio between cargo ships and passenger ships is not the same for fleets of all countries, some of which—the United Kingdom and some European countries—have a higher portion than others of vessels engaged in passenger traffic. Since most passenger ships carry also a fair amount of cargo, no attempt was made to eliminate the tonnages of passenger ships. A possible solution would be to compare the sum of gross freight and passenger fares with the size of the fleets, but detailed information on passenger fares was not available. Another matter is that the gross freights reported as paid and received refer not only to transoceanic ships, but for some countries also to inland waterways, overland and air transportation. Here again, insufficient information on the freight earnings of such other means of transportation prohibited their elimination from gross freights.

From the size of fleets and the percentage each area had in the free world's active fleet, shown in Table 24, the percentages of that fleet owned by each of the three areas, selected for comparison of freight earnings, are compared in the following tabulation. It appears that the fleets of the three areas accounted for about 79 per cent of the world

	1950	*1951*	*1952*	*1953*
U.K.	27%	25%	24%	24%
Non-£ metropoles	31	30	31	33
U.S. and Canada	21	25	24	20
	79	80	79	77

fleet in those years, which is about 5 per cent lower than their share in the world freight bill. Also, the United Kingdom's share and that of the nonsterling EPU metropoles in the world fleet is in general smaller than their shares in earnings, whether the figures are taken from the partner's record or the area's own record of earnings. Apparently, at least some

[28] A small part of their earnings, paid by the reporting countries, is contained in the gross freight payments to other areas.

of the countries of both areas manage to earn more per GRT, i.e., to operate their fleets more economically, than the countries of other areas do. The opposite is true of the United States and Canada whose actual operating fleets constitute a higher share of the world fleet than their share of earnings constitutes of total gross earnings.

With the data on size of fleets operating during the four years under study, we can now compare the changes in the percentages of earnings and of size of fleets, as shown in Table 24, and make these observations.

1. The United Kingdom shows a gradual decrease in its proportional earnings, which is smaller than the decrease in the proportional size of its fleet.
2. The nonsterling EPU metropoles show a much bigger increase over the years in their proportional earnings than in the proportional size of their fleets.
3. The United States and Canada show a much bigger decrease in their proportional earnings than in the proportional size of their fleets.
4. The Pan. Hon. Lib. fleet's increase in the proportional size of its fleet is not matched by an increase of its proportional earnings.

What do the differences in these proportional changes mean? Not much, so long as we are not in a position to split the gross freight earnings into two components—the freight earnings of tankers and those of dry cargo ships. For, there is quite a difference in the earnings of the two types of ships, particularly if they are operated on voyage charter, as shown in Section 2. And there were in those years rather big differences in the share of tankers in the total fleets of those areas, as shown in Table 25.

TABLE 25

TANKER TONNAGES AND PERCENTAGE PROPORTION IN CORRESPONDING FLEETS OF WORLD AREAS, 1950-1953
(tonnages in 1,000 GRT)

Fleets of:	1950		1951		1952		1953	
United Kingdom	3,803	21%	4,084	22%	4,533	24%	4,656	25%
Rest of £ area	38	2	27	1	69	3	82	4
Non-£ metropoles	4,849	23	5,663	25	6,341	26	7,167	28
U.S. and Canada	4,740	16	4,642	16	4,678	16	4,746	16
Pan. Hon. Lib.	2,132	52	2,345	50	2,598	51	3,315	57
Latin America	517	23	575	24	684	27	750	27
Other areas	647	15	723	15	924	16	1,072	17
All free world	16,726	20	18,059	21	19,827	22	21,788	24

SOURCE: See Table 24, footnote a.

Tentative Analysis of the Records

It appears from the table that the proportion of tankers in the fleets of the United Kingdom and the nonsterling EPU metropoles developed in those years at about the same rate as in those of all free world countries. The percentage of tankers in the fleets of the United States and Canada, however, seems to have been constant in these years. In other words, while the other areas show an increase in the less remunerative part of their fleets, that share of the fleets of the United States and Canada remained constant. In connection with our observations on Table 24 about the changes in proportional earnings and size of the fleets in those years, further observations become still more probable: (1) The nonsterling EPU metropoles increased their earnings per GRT considerably more than the countries of other areas did; (2) The average earnings of the United States and Canada decreased in comparison with the earnings of the other area countries. These conclusions are, however, only tentative. Until we have the gross freight earnings split between tankers and dry cargo ships, and can compare the earnings and fleet sizes of the two classes of ships separately, more definitive conclusions are not possible.

As indicated in the part of Section 2 dealing with tankers operated by British oil companies, a careful computation was made of the freight on oil products imported by each country in 1951 and 1952. Two other kinds of data are needed for a more precise analysis of the records. The first is a computation of the freight just described for 1950 and 1953, which would give the best possible estimates of the world tanker freight bill in all four years. The second is the world freight bill on imported dry cargo, which is much more difficult to compute because of the great variety of products and their freight rates. The subject is discussed in the next section in connection with the results of the computations made for the United Kingdom and France in the four years of the study. Much more time will be needed, however, to compute the dry cargo freight bill in the same way for all other member countries, assuming that the necessary information on freight rates can be secured. Such a computation would certainly be more accurate than that based on estimates furnished by the countries. Then the assessed freight on imports must be allocated, by flags of vessels or any other available information on the nationality of carriers, to the countries that earned the freight. This would provide us with as good an estimate as possible of the freight earnings of each of the eight areas in each of the four years. Moreover, the earnings of all areas in any year would automatically be equal to the freight payments, thus eliminating the need for a distinction between partners' records and countries' own records.

There is still another obstacle to obtaining good comparisons between gross freight earnings and size of fleet—lack of better information on tonnages chartered to and from the member countries in those years. At present, both receipts and payments of some countries for charter hire are included, not in the receipts and payments for gross freights, but in those for other transportation items. The gross freights earned by the chartered vessels are, however, included in the gross freight receipts of the countries operating the chartered vessels. Hence, tonnages chartered should be transferred from owner countries to operator countries before comparing freight earnings and size of fleets.

So far, not much information is available on tonnages chartered to and from other countries, except the information supplied by Norway. None could be obtained on tonnages chartered to and from other countries by the United States or the United Kingdom, for example, and none on the part of the Pan. Hon. Lib. fleet let on charter in those years (hence, the assumptions necessary for computing the earnings of this fleet for gross freights and charter hire, Table 15). Consequently, the corrections of figures for chartering and tonnages, shown in Table 24, could not be made to reflect operator relationships rather than ownership. Strong assumptions about tonnages chartered to and from other countries—except Norway—were needed also to compare the average earnings of dry cargo fleets of countries that distinguish, at least, between earnings by dry cargo ships and by tankers (Table 31, page 82).

The prospects for securing better information on chartering are difficult to evaluate at present. It would be splendid if all seafaring countries could be persuaded to release the same type of information on chartering as divulged by Norway in all these years. But, failing that, if the IMF could succeed in collecting accurate information on the payments and receipts for charter hire as well as on their allocation, it would provide a basis for estimating the tonnages chartered to and from other countries. The tonnages could then be transferred from the owner to the operator countries, which would greatly improve the comparison between gross freight earnings and size of fleets. Until these corrections can be made, however, all conclusions regarding efficiency in the operation of ships can be only tentative.